

THE UNIVERSITY
OF NORTH CAROLINA
RECORD

MAY 25, 1959



NUMBER 603

THE
GENERAL CATALOGUE ISSUE

FOR

THE 165TH SESSION
1958-1959

ANNOUNCEMENTS FOR THE SESSION 1959-1960

SCHEDULE OF ISSUES OF
THE RECORD
FOR YEAR 1958-1959

Research in Progress

School of Library Science Catalogue

Department of Statistics Catalogue

School of Social Work Catalogue

School of Pharmacy Catalogue

Summer Session Catalogue

School of Business Administration Catalogue

School of Education Catalogue

School of Dentistry Catalogue

School of Law Catalogue

School of Public Health Catalogue

School of Nursing Catalogue

Graduate School Catalogue

School of Journalism Catalogue

School of Medicine Catalogue

The General Catalogue Issue

THE UNIVERSITY OF NORTH CAROLINA RECORD

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CHAPEL HILL, N. C.

Under the Act of August 24, 1912

MAY 25, 1959

NUMBER 603

THE UNIVERSITY OF NORTH CAROLINA RECORD

THE ONE HUNDRED AND
SIXTY-FIFTH SESSION



THE GENERAL CATALOGUE ISSUE

1958-1959

*Announcements for the Session
1959-1960*

THE UNIVERSITY OF NORTH CAROLINA PRESS
CHAPEL HILL, N. C.

CALENDAR OF EVENTS

1959-1960

FALL SEMESTER, 1959

- | | |
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| September 10-11, Thursday-Friday. | Dormitories open for occupancy: New and returning men students, anytime both days and thereafter. New women students, Friday, September 11. Returning women students, Wednesday, September 16. |
| September 11, Friday, 8:30 A.M. | Placement tests for freshmen who did not participate in the summer advanced registration, Auditorium, Carroll Hall. |
| September 11, Friday, 7:00 P.M. | Orientation begins. Assembly for all freshmen and new transfer students according to schedule to be announced. |
| September 14-15, Monday-Tuesday. | Examinations for advanced standing and removal of conditions. |
| September 15-16, Tuesday-Wednesday, 8:00 A.M. to 5:00 A.M. | Registration for all new students and all former students not pre-registered. Pre-registered students pick up class tickets. Orientation closes. |
| September 17, Thursday, 8:00 A.M. | Classes for fall semester begin in all schools and departments of the University. Late registration begins. Late registration fee of \$5.00 for all registering during this period. |
| September 21, Monday, 4:30 P.M. | Late registration period closes. No registrations accepted after this date. |
| October 12, Monday. | University Day. |
| November 2, Monday, 3:00 P.M. | Graduate Executive Council, Consolidated University Office, Chapel Hill. |
| November 9, Monday, 9:00 A.M. | Progress reports of freshmen and sophomores due in the offices of deans of General College, Nursing, Pharmacy, and Dental Hygiene. |
| November 17, Tuesday, 4:30 P.M. | Last time for withdrawing from first semester and for receiving any refund in fees. |
| November 25, Wednesday, 1:00 P.M. | Instruction ends in all departments for Thanksgiving recess. |
| November 29, Sunday, 6:00 P.M. | Thanksgiving recess ends. Instruction resumed in all departments, 8:00 A.M., Monday, November 30. |
| December 19, Saturday, 1:00 P.M. | Instruction ends in all departments for Christmas vacation. |
| January 3, 1960, Sunday, 6:00 P.M. | Christmas vacation ends. Instruction resumed in all departments, 8:00 A.M., January 4, 1960. |
| January 16, Saturday, 1:00 P.M. | Classes end for fall semester. |
| January 18, Monday. | Reading day for fall semester. |
| January 19, Tuesday, 8:30 A.M. | Fall semester final examinations begin. |
| January 27, Wednesday, 6:00 P.M. | Fall semester final examinations end. |

SPRING SEMESTER, 1960

January 28, Thursday.	Dormitories open for new students.
January 29-30, Friday-Saturday.	Orientation and placement for all new freshmen and transfer students. Schedule to be announced.
February 1, Monday, 8:30 A.M.—4:30 P.M.	Registration for all new students and all former students not pre-registered. Students who have pre-registered pick up class tickets.
February 2, Tuesday, 8:00 A.M.	Classes for spring semester begin in all departments of the University. Late registration begins. Late registration fee of \$5.00 for all registering during this period.
February 6, Saturday, 12:30 P.M.	Late registration closes. No registrations accepted after this date.
March 22, Tuesday, 9:00 A.M.	Progress reports for freshmen and sophomores due in the offices of deans of the General College, Nursing, Pharmacy, and Dental Hygiene.
April 1, Friday, 4:30 P.M.	Last day for making application to appropriate dean for June graduation.
April 4, Monday, 3:00 P.M.	Graduate Executive Council, Consolidated University Office, Chapel Hill.
April 5, Tuesday, 4:30 P.M.	Last time for withdrawing from spring semester and for receiving any refund of fees.
April 13, Wednesday, 1:00 P.M.	Instruction ends in all departments for spring recess.
April 19, Tuesday, 6:00 P.M.	Spring recess ends. Instruction resumed 8:00 A.M., Wednesday, April 20.
April 26, Tuesday, 4:30 P.M.	Last day for students in residence to reserve rooms for next academic year.
May 23, Monday, 6:00 P.M.	Classes end for spring semester.
May 24, Tuesday.	Reading day for spring semester.
May 25, Wednesday, 8:30 A.M.	Spring semester final examinations begin.
June 2, Thursday, 6:00 P.M.	Spring semester final examinations end.
June 4, Saturday.	Commencement begins.
June 5, Sunday.	Commencement sermon.
June 6, Monday.	Graduation exercises.

SUMMER SESSION, 1960

First Term

June 7, Tuesday.	Dormitories open for all students.
June 8, Wednesday.	Orientation and placement for those entering the University as regular students.
June 9, Thursday.	Registration.
June 10, Friday.	First day of classes.
June 11, Saturday.	Classes will meet.
July 18-19, Monday-Tuesday.	Examinations.

Second Term

July 20, Wednesday.	Registration.
July 21, Thursday.	First day of classes.
July 23, Saturday.	Classes will meet.
August 26-27, Friday-Saturday.	Examinations.

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1959

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1960

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Part One
OFFICERS

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2. Died November 15, 1957.

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A consolidation of the University of North Carolina at Chapel Hill, the State College of Agriculture and Engineering at Raleigh, and the Woman's College of the University of North Carolina at Greensboro.

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³GLEN HAYDON, Ph.D., *Director, Hill Hall of Music*

⁴JOSEPH CURTIS SLOANE, Ph.D., *Director, Ackland Memorial Art Museum*

KENNETH NESS, M.A., *Acting Director, Ackland Memorial Art Museum*

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CHARLES CECIL BERNARD, M.A., *Acting Director of Admissions*

EDWARD MCGOWAN HEDGPETH, M.D., *University Physician*

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JOSEPH MORGAN GALLOWAY, B.S., *Director, University Placement Service*

EDWIN SIDNEY LANIER, *Director, Central Office of Records and Director of Student Aid*

WILLIAM DECATUR PERRY, Ed.D., *Director, University Testing Service*

ALMONTE CHARLES HOWELL, *Adviser to Foreign Students*

FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Assistant Adviser to Foreign Students*

3. Absent on Kenan leave, fall semester, 1958-1959.

4. Effective spring semester, 1959.

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 HENRY LEE FERGUSON, JR., B.S., C.P.A., *Director of Accounting and Budgets*
 JOHN SAMUEL BENNETT, B.S., R.E., *Director of Operations*
 WEBB FREDERICK EVANS, S.B. COMM., *Director of Purchases and Stores*
 LIVINGSTONE BERTRAM ROGERSON, C.P.A., *Manager, Carolina Inn*
 HOWARD RAYMOND RITCHIE, *Director, Retail Stores Division*
 GEORGE WILLARD PRILLAMAN, B.S., *Manager, Lenoir Dining Hall*
 FRANCIS ALBERT WEST, A.B., *Manager, Monogram Club*
 ANTHONY FRANCIS JENZANO, *Manager, The Morehead Building and Planetarium*

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WILLIAM THOMAS BOST, JR., A.B. JOURN., *Director, Alumni Annual Giving*
 ALFRED GUY IVEY, *Director, The University News Bureau*
 JOSEPH MARYON SAUNDERS, A.M., *Alumni Secretary*

THE FACULTY COUNCIL**Ex Officio Members**

President: WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D.
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Chancellor: WILLIAM B. AYCOCK, J.D.
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Dean of the Faculty: JAMES L. GODFREY, Ph.D.
Administrator, Division of Health Affairs: HENRY T. CLARK, JR., A.B., M.D.
Dean of Student Affairs: FRED H. WEAVER, A.M.
Chairman of the Faculty: WILLIAM S. WELLS, Ph.D.
Secretary of the Faculty: A. C. HOWELL, Ph.D.
Dean, College of Arts and Sciences: J. CARLYLE SITTERSON, Ph.D.
Dean, Graduate School: G. A. HEARD, Ph.D.
Dean, General College: CECIL SLATON JOHNSON, Ph.D.
Dean, School of Business Administration: MAURICE W. LEE, Ph.D.
Dean, School of Education: H. ARNOLD PERRY, Ed.D.
Dean, School of Journalism: N. N. LUXON, Ph.D.
Dean, School of Law: HENRY P. BRANDIS, JR., A.B., LL.B.
Dean, School of Library Science: LUCILE KELLING HENDERSON, B.L.S.
Dean, School of Social Work: ARTHUR E. FINK, Ph.D.
Dean, School of Medicine: W. R. BERRYHILL, A.B., M.D.
Dean, School of Dentistry: J. C. BRAUER, A.B., M.Sc., D.D.S.
Dean, School of Pharmacy: E. A. BRECHT, Ph.D.
Dean, School of Nursing: ELIZABETH L. KEMBLE, Ed.D.
Dean, School of Public Health: E. G. MCGAVRAN, A.B., M.D., M.P.H.
Chairman, Division of Humanities: WILLIAM S. WELLS, Ph.D.
Chairman, Division of Natural Sciences: EVERETT D. PALMATIER, Ph.D.
Chairman, Division of Social Sciences: E. WM. NOLAND, Ph.D.
Acting Director of Admissions: CHARLES C. BERNARD, A.B., M.A.
Acting Director of Extension: CHARLES F. MILNER, A.M. in Ed.
Director of Libraries: JERROLD ORNE, Ph.D.

Director of University Press: LAMBERT DAVIS, M.A.

Director of Records: EDWIN S. LANIER

Director of University Health Service: E. MCG. HEDGPETH, A.B., M.D.

Director of Summer Session: A. K. KING, Ph.D.

Elected Members (arranged alphabetically without regard to rank.)

Terms Expire December 31, 1959

DIVISION OF HEALTH AFFAIRS: A. T. Miller.

DIVISION OF HUMANITIES: Lyman A. Cotten, Norman Eliason, Hugh Holman, Albert I. Suskin.

DIVISION OF NATURAL SCIENCES: Dorothy Adkins, D. G. Basile, C. R. Bell, J. C. Morrow.

DIVISION OF SOCIAL SCIENCES: Lowell D. Ashby, J. R. Caldwell, Robert M. Miller, C. H. Pegg, M. T. Van Hecke.

Terms Expire December 31, 1960

DIVISION OF HEALTH AFFAIRS: Earl T. Brown, John Cassell, Ruth Dalrymple, Wm. D. Strickland.

DIVISION OF HUMANITIES: F. M. Duffey, A. G. Engstrom, Glen Haydon (G. S. Lane, alternate for Fall Semester, 1958), J. G. Kunstmann, Peter G. Phialas.

DIVISION OF NATURAL SCIENCES: Wayne A. Bowers, Roy L. Ingram, Virgil I. Mann, Billy J. Pettis, Maurice Whittinghill.

DIVISION OF SOCIAL SCIENCES: Robert L. Bunting, F. N. Cleaveland, Gordon B. Cleveland, Joe S. Floyd, Fletcher M. Green, James E. King, C. P. Spruill, R. H. Wettach (L. R. Wilson, alternate for Spring Semester, 1959).

Terms Expire December 31, 1961

DIVISION OF HEALTH AFFAIRS: Carl E. Anderson, Ernest Craige, W. W. Demeritt, T. W. Farmer, B. G. Greenberg.

DIVISION OF HUMANITIES: Walter Arndt, B. H. Boyd, Geo. M. Harper, Wilton Mason, Robert Voitle, Earl Wynn.

DIVISION OF NATURAL SCIENCES: M. R. Carriker, Wm. J. Koch, W. R. Mann, Geo. E. Nicholson, Jr., Joseph W. Straley.

DIVISION OF SOCIAL SCIENCES: R. P. Calhoon, Isabelle K. Carter, John Gulick, Henry C. House, R. E. Jamerson, H. Q. Langenderfer, H. W. Lewis, J. A. Parker, Guy B. Phillips, D. O. Price, Richard L. Simpson.

Standing Committees of the Faculty

⁵ADVISORY (Elected). 1959: Messrs. Bowers, Guthrie, Palmatier; 1960: Couch, Noland, Spruill; 1961: F. N. Cleaveland, Lefler, Roe (On leave, 1959), William Wells.

⁶ADVISORY COMMITTEE ON ADMISSIONS AND RECORDS. Messrs. Bernard (ex officio), Brecht, Cecil Johnson, Lanier (ex officio), Lee, Noland, Palmatier, Sitterson (*Chairman*), William Wells.

⁵ATHLETICS. 1959: Messrs. Harland, Klingberg, Wiley; 1960: Cornwell (*Chairman*), Hedgpeth; 1961: Hanft, W. A. White.

BUILDINGS AND GROUNDS. Messrs. Branch, Clark, Cornwell, Harper, J. A. Parker, Stoudemire (*Chairman*), Totten, Wager, Fred H. Weaver.

⁶CATALOGUE. Messrs. Bernard (*Chairman*), Howell, Miss Cowles.

⁵. Terms expire the year indicated.

⁶. Members of this committee are appointed on account of their official positions and so are not subject to the regulation regarding terms of appointment.

5COMMUNICATION. 1959: Messrs. Jamerson, Milner, Wynn (*Chairman*); 1960: Boyd, Tarbet; 1961: Alden, Mattis.

5ENGLISH COMPOSITION. 1959: Messrs. Bunting, G. B. Cleveland, George Horner (*Chairman*), Kunstmann, Eugene R. Long, Thomas Patterson, Semeniuk, Wettach; 1960: Holton, Knight, Logsdon, Virgil Mann, Wall, Wallace; 1961: J. B. Adams, Gulick, Immerwahr, L. A. Sharpe, Tindall.

5ESTABLISHED LECTURES. 1959: Messrs. Baer, Schwenning, Sechriest; 1960: Blaine, Warner Wells; 1961: Boyd (*Chairman*), F. M. Green.

5EXAMINATIONS AND INSTRUCTION. 1959: Miss Dalrymple, Messrs. Lehman, Reichert; 1960: Bernard (ex officio), Wheeler; 1961: Miss Adkins (*Chairman*), Taff.

5EXECUTIVE (Elected). 1959: Messrs. Barrett, E. A. Cameron; 1960: Harper, Klingberg; 1961: G. B. Cleveland, G. V. Taylor.

5FACULTY WELFARE. 1959: Mrs. Isabelle Carter, Messrs. Klingberg, McGregor (*Chairman*); 1960: Guy B. Phillips, W. P. Richardson; 1961: Flowers, Jenner.

5FRATERNITIES AND SORORITIES. 1959: Miss Carmichael, Messrs. Carse, Morrow; 1960: Esser (*Chairman*), Phialas, Straley; 1961: Kreps, Miss Lucia Morgan, Miss Mary Randolph, H. O. Thompson, Miss Jane Chance, Messrs. Henry House, R. M. Miller.

5HONORARY DEGREES (Elected). 1959: Messrs. MacMillan, Vance; 1960: Roe, Van Hecke; 1961: Lefler, Womack.

6INSTRUCTIONAL PERSONNEL. Dean Godfrey (*Chairman*), Mrs. Henderson, Miss Kemble, Messrs. Brandis, Brecht, Fink, Heard, Cecil Johnson, Luxon, Noland, Palmatier, H. A. Perry, William Wells.

5PLANS AND PROJECTS. 1959: Messrs. McCurdy, Wiley, L. R. Wilson; 1960: Bierck (*Chairman*), Engstrom, Claude George, Orne, Spruill; 1961: Charles Henderson, Burton Jones, Sitterson.

5RADIOISOTOPES. 1959: Messrs. Doak (*Chairman*), A. K. King; 1960: Slifkin, Henry C. Thomas, Whittinghill; 1961: Branch, Okun, E. H. Wood.

5REGISTRATION. 1959: Messrs. Claude George, Harper, J. E. Keller, Wm. G. Morgan, McGavran, Pegg, Miss Marion S. Wood; 1960: Lanier (*Chairman*) Bernard, M. A. Hill, H. A. Perry, Guy B. Phillips, George Taylor; 1961: Brecht, H. L. Ferguson, Jr., Horner, Jamerson, A. K. King, McKnight, F. C. Shepard.

5RETIREMENT ARRANGEMENTS. 1959: Messrs. J. E. Adams, Schwentker (*Chairman*), Whitehill; 1960: Bond, Nicholson; 1961: R. B. House, Robert B. Lindsay.

5SCHOLARSHIPS, AWARDS, AND STUDENT AID. 1959: Miss Dalrymple, Messrs. Cornwell, J. B. Hill, M. A. Hill, Lanier, Terrill; 1960: Bernard, Crockford, Cecil Johnson; 1961: J. R. Caldwell, Cathey (*Chairman*), Gaskin, Magill, J. M. Saunders, J. A. Williams.

5UNIVERSITY GOVERNMENT. 1959: Palmatier, Robson; 1960: Holman, Markham (*Chairman*), A. T. Miller; 1961: Ashby, Clifford Lyons.

5. Terms expire the year indicated.

6. Members of this committee are appointed on account of their official positions and so are not subject to the regulation regarding terms of appointment.

OFFICERS OF INSTRUCTION

WILLIAM CLYDE FRIDAY, *President of the University of North Carolina*
B.S., 1941 (North Carolina State); LL.B., 1948 (North Carolina); LL.D., (Wake Forest;
Belmont Abbey; Duke; Princeton)

WILLIAM BRANTLEY AYCOCK, *Chancellor of the University of North Carolina at Chapel Hill*

B.S., 1936 (North Carolina State); A.M., 1937, J.D., 1948 (North Carolina)

By action of the Trustees of the University, the General Faculty includes all members of the University's teaching force above the rank of instructor and all general administrative officers of the institution. In the President and the General Faculty is vested final authority (under the Trustees) over all matters of University policy and activity. At present the legislative functions of the General Faculty are vested in the Faculty Council. Under the General Faculty the colleges and the schools have separate faculties and administrative boards, which have final authority over matters pertaining solely to such colleges or schools. In the following list are included the names of all members of the General Faculty who have not been listed under Officers of Administration and the names of all instructors. The names are arranged in alphabetical order. The date following the name indicates the year of appointment. The word clinical used in a title indicates that the individual has only part-time teaching duties in the University.

DAVID WILFRED ABSE (1952), *Professor of Psychiatry and Lecturer in Department of Psychology*

B.Sc., 1935, M.B., 1938, B.Ch., 1938, M.D., 1948 (Wales); D.P.M., 1940 (London)

ELIE MAYNARD ADAMS (1948), *Professor of Philosophy*

A.B., 1941, A.M., 1944 (Richmond); B.D., 1944 (Colgate-Rochester Divinity School);
A.M., 1947, Ph.D., 1948 (Harvard)

JOHN BERRY ADAMS (1958), *Associate Professor of Journalism and Research Associate in the Institute for Research in Social Science*

A.B., 1953 (California); M.S., 1954, Ph.D., 1957 (Wisconsin)

JOSEPH EDISON ADAMS (1935), *Professor of Botany*

B.S., 1929 (Michigan); M.A., 1932 (Columbia); Ph.D., 1935 (California)

NICHOLSON BARNEY ADAMS (1924), *Professor of Spanish*

A.B., 1915, Litt.D. (Washington and Lee); M.A., 1920, Ph.D., 1922 (Columbia)

RAYMOND WILLIAM ADAMS (1920), *Professor of English*

A.B., 1920 (Beloit); A.M., 1921, Ph.D., 1928 (North Carolina)

DOROTHY C. ADKINS (1948), *Professor of Psychology*

B.S., 1931, Ph.D., 1937 (Ohio State)

1ROBERT EUGENE AGGER (1953), *Assistant Professor of Political Science*

A.B., 1948 (Williams); LL.B., 1951 (Yale); Ph.D., 1954 (Oregon)

SUSAN GREY AKERS (1931), *Professor of Library Science and Dean of the School of Library Science, Emeritus (1954)*

A.B., 1909 (Kentucky); Certificate, 1913 (Library School, Wisconsin); Ph.D., 1932 (Chicago)

WAYNE HENRY AKESON (1958), *Instructor in Surgery (Orthopaedics)*

M.D., 1953 (Chicago)

1. Resigned August 31, 1958.

- EDGAR HIESTER ALDEN (1949), *Associate Professor of Music*
B.M., 1936, M.M., 1940 (Oberlin); A.M., 1950, Ph.D., 1956 (North Carolina)
- JAMES MOSES ALEXANDER (1957), *Clinical Associate Professor of Medicine*
M.D., C.M., 1934 (McGill)
- SYDENHAM BENONI ALEXANDER (1949), *Clinical Assistant Professor of Medicine and Assistant Administrator of Division of Health Affairs*
A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Virginia)
- JOHN VOLNEY ALLCOTT (1940), *Professor of Art*
Ph.B., 1928 (Wisconsin); M.A., 1936 (Chicago)
- ERNEST MARVIN ALLEN, JR. (1940), *Associate Professor of Physical Education*
A.B., 1938, A.M., 1940 (North Carolina)
- JAMES NORMAN ALLEN (1955), *Assistant Professor of Medicine*
M.D., 1949 (Harvard)
- WALTER ALLEN, JR. (1945), *Professor of Latin*
A.B., 1932 (Wesleyan); Ph.D., 1936 (Yale)
- MARGARET ALLMAN (1956), *Lecturer in Library Science and Librarian of the School of Library Science*
A.B., 1928 (Alabama); B.S. in L.S., 1941, M.S. in L.S., 1953 (North Carolina)
- ²BENJAMIN H. ANDERSON, JR. (1957), *Clinical Instructor in Medicine*
B.S., 1948 (Virginia Military Institute); M.D., 1952 (Medical College of Virginia)
- CARL ELMORE ANDERSON (1940-42; 1950), *Associate Professor of Biochemistry and Nutrition and Assistant Dean of the School of Medicine*
B.S., 1935 (Connecticut); Ph.D., 1943 (North Carolina)
- EVELYN LENORE ANDERSON (1956), *Research Associate in Public Health Nutrition*
B.S., 1930 (Iowa State College); M.P.H., 1954 (North Carolina)
- JAMES CLARENCE ANDREWS (1937), *Professor of Biochemistry and Nutrition, Emeritus (1957)*
B.S. in Chem., 1915 (Iowa); Ph.D., 1918 (Columbia); Prof. Hon., 1948 (San Carlos, Guatemala)
- LEON POLK ANDREWS (1953), *Assistant Professor of Medicine*
A.B., 1942 (North Carolina); M.D., 1945 (Harvard)
- MARJORIE MENDENHALL APPLEWHITE (1956), *Visiting Lecturer in Political Science*
A.B., 1920 (Woman's College, North Carolina); A.M., 1927 (Radcliffe); Ph.D., 1940 (North Carolina)
- WALTER WERNER ARNDT (1957), *Assistant Professor of Russian*
Dipl. Econ. Pol. Sc. (Oxon.); 1936, B.S., 1943 (Robert College, Istanbul, Turkey); Ph.D., 1956 (North Carolina)
- JOHN HAMPTON ARNOLD (1957), *Instructor in Pediatrics*
B.S., 1948, M.D., 1951 (Tulane)
- MARY BERTUCIO ARNOLD (1957), *Instructor in Pediatrics*
B.A., 1945 (Vassar); M.D., 1950 (Vermont)
- LOWELL DEWITT ASHBY (1947), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
A.B., 1936 (Hastings College); M.A., 1938 (Nebraska); Ph.D., 1948 (Wisconsin)
- EDITH EUGENIA AVERITT (1925), *Geology and Geography Librarian*
A.B., 1925, A.B. in L.S., 1934 (North Carolina)
- KURT W. BACK (1956), *Research Associate Professor of Biostatistics in School of Public Health, Staff Affiliate in Institute for Research in Social Science, and Lecturer in Department of Psychology*
B.S., 1940 (New York); M.A., 1941 (U.C.L.A.); Ph.D., 1949 (Massachusetts Institute of Technology)
- FRANK M. BADROCK (1956), *Clinical Instructor in Psychiatry*
B.M., B.S., 1933 (University of Leeds, England); Diploma in Psychiatry, 1955 (University of Edinburgh, Scotland)
- HERBERT RALPH BAER (1945), *Professor of Law*
A.B., 1923 (Cornell); LL.B., 1926 (Harvard)
- BILLY BAGGETT (1957), *Assistant Professor of Pharmacology and Biochemistry*
B.A., 1947 (Mississippi); Ph.D., 1952 (Saint Louis)

- JAMES OSLER BAILEY (1930), *Professor of English*
A.B., 1924, A.M., 1927, Ph.D., 1934 (North Carolina)
- HERMAN GLENN BAITY (1920), *Professor of Sanitary Engineering, Emeritus (1955)*
A.B., 1917, S.B. in C.E., 1922 (North Carolina); S.M., 1925, Sc.D., 1928 (Harvard)
- CLYDE L. BALL (1956), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1936 (Memphis State); A.M., 1937, LL.B., 1949 (Vanderbilt)
- BENNY DALE BARKER (1958), *Instructor in Crown and Bridge Prosthodontics*
B.S., 1954 (Davidson); D.D.S., 1958 (North Carolina)
- ³RICHARD BURGESS BARLOW (1957), *Instructor in History*
B.A., 1950 (Pennsylvania); B.D., 1954 (Andover); M.A., 1955, Ph.D., 1957 (Pennsylvania)
- CLIFFORD PAUL BARNES (1957), *Lieutenant, United States Navy; Assistant Professor of Naval Science*
B.S., 1951 (United States Naval Academy)
- SAMUEL GILL BARNES (1953), *Assistant Professor of English*
B.S., 1936 (Oklahoma A. & M.); A.M., 1946, Ph.D., 1953 (North Carolina)
- THOMAS BUCHANAN BARNETT (1952), *Associate Professor of Medicine*
A.B., 1944 (Tennessee); M.D., 1949 (Rochester)
- GERALD ALAN BARRETT (1947), *Professor of Business Administration and Director, M.B.A. Program*
A.B., 1933 (Lehigh); LL.B., 1936 (Columbia)
- RONALD DEAN BARTLETT (1958), *Lieutenant Commander, United States Navy; Assistant Professor of Naval Science*
A.B. in Psych., 1950 (Kansas Wesleyan)
- ROGER EVANS BARTON (1953), *Assistant Professor of Operative Dentistry*
D.D.S., 1945 (Pennsylvania)
- DAVID GIOVANI BASILE (1949), *Assistant Professor of Geography*
A.B., 1936 (Washington and Lee); M.A., 1939 (Columbia)
- E. EARL BAUGHMAN (1954), *Associate Professor of Psychology, Coordinator of the Clinical Psychology Training Program in the Department of Psychology; Clinical Associate Professor of Psychology in Department of Psychiatry; Research Associate in the Institute for Research in Social Science*
B.S., 1946, Ph.D., 1951 (Chicago)
- CARL THOMAS BAUGNESS (1957), *Director of Pharmacy Extension*
S.B. in Phar., 1954 (North Carolina)
- STEPHEN BARTOW BAXTER (1958), *Assistant Professor of History*
B.A., 1950 (Harvard); Ph.D., 1955 (Cambridge)
- ALBERTA MARGARET BEAT (1953), *Assistant Director and Assistant Professor of Dental Hygiene*
R.D.H., 1946 (Columbia); B.S., 1952 (Washington)
- CHARLES DALE BEERS (1918-22; 1927), *Professor of Zoology*
A.B., 1921, A.M., 1922 (North Carolina); Ph.D., 1925 (Johns Hopkins)
- C. RITCHIE BELL (1955), *Assistant Professor of Botany*
A.B., 1947, M.A., 1949 (North Carolina); Ph.D., 1953 (California)
- FRED E. BELL (1958), *Instructor in Biochemistry and Nutrition*
A.B., 1950, M.A., 1953, Ph.D., 1957 (Emory)
- EDWARD PERRY BENBOW, JR., (1954), *Clinical Instructor in Pediatrics*
A.B., 1937 (North Carolina); M.D., 1941 (Duke)
- WALTER RUSSELL BENSON (1956), *Assistant Professor of Pathology*
M.D., 1944 (Duke)
- HARRY BERGHOLZ (1957), *Chief Bibliographer, University Library*
M.A., 1931, Ph.D., 1933 (Berlin); M.A.L.S., 1957 (Michigan)
- MICHAEL KALEN BERKUT (1947), *Assistant Professor of Biochemistry and Nutrition*
B.S., 1941 (North Carolina State); Ph.D., 1953 (North Carolina)

- BARBARA HELEN BERNARD (1954), *Associate Professor of Nursing (Psychiatric Nursing)*
Diploma in Nursing, 1933 (College of Nursing and Health, Cincinnati); R.N.; B.S.N. Ed., 1951, Litt.M., 1952 (Pittsburgh)
- MARVIN BRYAN BERRY (1957), *Instructor in Religion*
A.B., 1954, M.A., 1957 (North Carolina)
- WALTER REECE BERRYHILL (1933), *Professor of Medicine and Dean of the School of Medicine*
A.B., 1921 (North Carolina); M.D., 1927 (Harvard); Sc.D. (Davidson)
- EM OLIVIA BEVIS (1958), *Instructor in Nursing*
B.S.N., 1955 (Emory); R.N.; M.A., 1958 (Chicago)
- HAROLD A. BIERCK (1948), *Professor of History*
B.A., 1938, M.A., 1940, Ph.D., 1944 (U.C.L.A.)
- 3a MAURICE ALEXANDER BIGGS, JR. (1957), *Assistant Director of the Institute of Government*
B.A., 1949, LL.B., 1957 (Wake Forest)
- JAMES HORTON BLACKMAN (1958), *Lecturer in Economics and Research Associate in the Institute for Research in Social Science*
A.B., 1939 (Swarthmore College); Cert., 1949 (Russian); M.A., 1949; Ph.D., 1958 (Columbia)
- JAMES CYRIL DICKSON BLAINE (1938), *Professor of Transportation*
B.Comm., 1934 (Queen's University, Canada); S.M., 1939, Ph.D., 1941 (North Carolina)
- GEORGE WALKER BLAIR, JR. (1953), *Clinical Instructor in Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Pennsylvania)
- MARGARET BLEE (1941), *Professor of Public Health Nursing*
Diploma, 1918 (St. Joseph School of Nursing, Kansas City, Mo.); R.N.; B.S., 1933 (Missouri); M.Ed., 1941 (Mills College)
- CARL S. BLYTH (1949), *Assistant Professor of Physical Education and Director of the Laboratory of Applied Physiology*
B.S., 1947 (Lenoir Rhyne); A.M., 1948, Ph.D., 1953 (North Carolina)
- RICHARD DARRELL BOCK (1958), *Assistant Professor of Psychology*
B.S., 1948 (Carnegie Institute of Technology); M.A., 1950, Ph.D., 1952 (Chicago)
- RICHMOND PUGH BOND (1929), *Kenan Professor of English*
A.B., 1920 (Vanderbilt); A.M., 1923, Ph.D., 1929 (Harvard)
- MICHAEL BORETSKY (1955), *Research Associate in the Institute for Research in Social Science*
M.A., 1949 (Erlangen); Ph.D., 1949 (Ukrainian Free University, Munich)
- RAJ CHANDRA BOSE (1948), *Professor of Statistics*
M.A., 1927, D.Litt., 1947 (Calcutta)
- VERNON LELAND BOUNDS (1950), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
LL.B., 1949 (Virginia)
- CHARLES E. BOWERMAN (1957), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1935 (Denison); M.A., 1941, Ph.D., 1948 (Chicago)
- WAYNE A. BOWERS (1947), *Professor of Physics*
A.B., 1938 (Oberlin); Ph.D., 1943 (Cornell)
- BERNARD H. BOYD (1950), *James A. Gray Professor of Biblical Literature*
A.B., 1932 (Presbyterian College); Th.B., 1935 (Princeton Theological Seminary); M.A., 1935 (Princeton); Th.D., 1946 (Union Theological Seminary in Virginia)
- ALBERT D. BOYER (1956), *Master Sergeant, United States Air Force; Instructor in Air Science*
- HARRY ROBERT BRASHEAR, JR. (1953), *Assistant Professor of Surgery (Orthopaedics)*
A.B., 1943, M.D., 1945 (California)
- HENRY PARKER BRANDIS, JR. (1940), *Professor of Law and Dean of the School of Law*
A.B., 1928 (North Carolina); LL.B., 1931 (Columbia); LL.D., 1951 (Catawba)
- ALFRED THEODOR BRAUER (1941) *Professor of Mathematics*
Ph.D., 1928 (Berlin)

- JOHN CHARLES BRAUER (1950), *Professor of Pedodontics and Dean of the School of Dentistry*
D.D.S., 1928, A.B., 1934, M.Sc., 1936 (Nebraska)
- CHARLES ANTHONY BREAM (1952), *Associate Professor of Radiology*
B.S., 1936 (Grove City College); M.D., 1940 (Temple)
- EDWARD ARMOND BRECHT (1939), *Professor of Pharmacy and Dean of the School of Pharmacy*
B.S. in Phar., 1933, M.S., 1934, Ph.D., 1939 (Minnesota)
- MILLARD SHERIDAN BRECKENRIDGE (1927), *Professor of Law*
Ph.B., 1917 (Chicago); LL.B., 1918 (Yale)
- KENNETH MERLE BRINKHOUS (1946), *Professor of Pathology*
B.A., 1929, M.D., 1932 (Iowa)
- C. VICTOR BRISCOE (1958), *Assistant Professor of Physics and Research Associate in Physics*
B.S., 1952 (King College); M.S., 1957, Ph.D., 1958 (Rice)
- LEE MARSHALL BROOKS (1927), *Professor of Sociology, Emeritus (1955)*
A.B., 1925 (Boston); A.M., 1926, Ph.D., 1929 (North Carolina)
- ALTON MARK BROTEN (1956), *Lecturer in Social Work*
B.A., 1949 (Valparaiso); M.A., 1950 (Chicago)
- CARL FRASER BROWN (1950), *Professor of Education*
A.B., 1930, A.M., 1931 (South Carolina); Ph.D., 1946 (Peabody)
- EARL T. BROWN (1956), *Assistant Professor of Pharmacy*
B.S. in Phar., 1952, Ph.D., 1956 (North Carolina)
- ROY MELTON BROWN (1925), *Professor of Public Welfare Administration, Emeritus (1948)*
A.B., 1906, A.M., 1921, Ph.D., 1929 (North Carolina)
- EDWARD TANKARD BROWNE (1922), *Professor of Mathematics*
B.A., 1915, M.A., 1917 (Virginia); Ph.D., 1926 (Chicago)
- ALBERT HUGHES BRYAN (1946), *Professor of Public Health Nutrition*
B.S., 1927, M.D., 1931 (Harvard)
- DANIEL HOUSTON BUCHANAN (1935), *Professor of Economics, Emeritus (1954)*
Lit.B., 1909 (Sterling College); A.B., 1911 (Colorado College); A.M., 1912, Ph.D., 1931 (Harvard); D.Sc.Econ., 1928 (Keiogyijuku University, Tokyo)
- HOKE VOGLER BULLARD, JR. (1957), *Clinical Instructor in Medicine*
B.S., 1948 (North Carolina); M.D., 1951 (Harvard)
- JAMES BELL BULLITT (1913), *Professor of Pathology, Emeritus (1947)*
B.A., 1894, M.A., 1895 (Washington and Lee); M.D., 1897 (Virginia)
- LEWIS FRANKLIN BUMGARDNER (1953), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1935 (Emory)
- PAUL LESLIE BUNCE (1952), *Associate Professor of Surgery*
A.B., 1938 (Oberlin); M.D., 1942 (Chicago)
- †JOSEPH FREDERICK BUNNETT (1952), *Associate Professor of Chemistry*
B.A., 1942 (Reed College); Ph.D., 1945 (Rochester)
- ROBERT LOGAN BUNTING (1949), *Assistant Professor of Economics and Research Associate in the Institute for Research in Social Science*
A.M., 1948, Ph.D., 1958 (Chicago)
- CHARLES HOYT BURNETT (1951), *Professor of Medicine*
A.B., 1934, M.D., 1937 (Colorado)
- THOMAS C. BUTLER (1950), *Professor of Pharmacology*
A.B., 1930, M.D., 1934 (Vanderbilt)
- KENNETH RHODES BYERLY (1957), *Associate Professor of Journalism*
B.B.A., 1930 (Minnesota); M.A., 1932 (North Carolina)
- ROBERT RANDALL CADMUS (1950), *Director of the North Carolina Memorial Hospital and Professor of Hospital Administration*
A.B., 1936 (College of Wooster); M.D., 1940 (Columbia)

- JAMES ROY CALDWELL (1947), *Associate Professor of Social Science and Adviser in the General College*
A.B., 1931 (Davidson); A.M., 1937, Ph.D., 1950 (North Carolina)
- WALLACE EVERETT CALDWELL (1921), *Professor of Ancient History*
A.B., 1910 (Cornell); Ph.D., 1919 (Columbia)
- RICHARD PERCIVAL CALHOON (1945), *Professor of Business Administration*
A.B., 1930, A.M., 1932 (Pittsburgh)
- SHIRLEY ELIZABETH CALLAHAN (1958), *Instructor in Preventive Medicine*
B.S., 1952 (Maryland); C.P.H.N., 1955 (Minnesota); M.P.H., 1958 (North Carolina)
- CHARLES METZ CAMERON, JR. (1955), *Associate Professor of Public Health Administration*
M.D., 1948 (Vanderbilt); M.P.H., 1954 (North Carolina)
- EDWARD ALEXANDER CAMERON (1929), *Professor of Mathematics*
A.B. in Ed., 1928, A.M., 1929, Ph.D., 1936 (North Carolina)
- ⁵FRANK KENNETH CAMERON (1926), *Professor of Chemistry, Emeritus (1946)*
A.B., 1891, Ph.D., 1894 (Johns Hopkins)
- ERNEST QUEENER CAMPBELL (1958), *Assistant Professor of Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1945 (Furman); M.A., 1946 (Pennsylvania); Ph.D., 1956 (Vanderbilt)
- GEORGE RADFORD CANNEFAX (1953), *Instructor in Experimental Medicine*
B.S., 1950 (Ouachita College)
- LOUISE CANTRELL (1957), *Associate Professor of Maternal and Child Health Nursing*
B.S., 1950
- KATHERINE KENNEDY CARMICHAEL (1946), *Dean of Women*
A.B., 1932 (Birmingham-Southern); M.A., 1939, Ph.D., 1943 (Vanderbilt)
- RAY L. CARPENTER, JR. (1958), *Instructor in Library Science*
A.B., 1949 (St. Lawrence); M.A., 1951 (North Carolina)
- MELBOURNE ROMAINE CARRIKER (1954), *Associate Professor of Zoology*
B.S., 1939 (Rutgers); Ph.M., 1940, Ph.D., 1943 (Wisconsin)
- DUDLEY DEWITT CARROLL (1918), *Kenan Professor of Economics and Dean of the School of Business Administration, Emeritus (1956)*
A.B., 1907 (Guilford); A.B., 1908 (Haverford); M.A., 1916 (Columbia)
- LEON H. CARSON (1957), *Instructor in Physical Education*
B.A., 1952 (North Carolina)
- CLYDE CASS CARTER (1946), *Professor of Business Law*
A.B., 1925 (Emory and Henry); M.A., 1928 (Vanderbilt); LL.B., 1935 (Wilmington Law School); Ph.D., 1942 (North Carolina)
- ISABELLE KIRKLAND CARTER (1937), *Associate Professor of Social Work*
B.S., 1924 (Boston); M.S.S., 1925 (Smith College School of Social Work)
- JOEL J. CARTER (1949), *Associate Professor of Music*
A.B., 1935 (San Jose State College); M.A., 1947, Ph.D., 1955 (Stanford)
- NEEDHAM BATTLE CARTER (1956), *Clinical Instructor in Medicine*
A.B., 1949, M.D., 1953 (Duke)
- JOHN CHARLES CASSEL (1954), *Associate Professor of Epidemiology and Clinical Assistant Professor of Medicine*
B.Sc., 1941, M.B. B.Ch., 1945 (University of Witwatersrand, South Africa); M.P.H., 1953 (North Carolina)
- CORNELIUS OLIVER CATHEY (1947), *Professor of History and Social Science*
A.B., 1928, A.M., 1929 (Davidson College); Ph.D., 1948 (North Carolina)
- VERNE STRUDWICK CAVINESS (1952), *Clinical Instructor in Medicine*
A.B., 1915 (Trinity College); M.D., 1921 (Jefferson)
- EMIL BOGOMIR CEKADA (1952), *Clinical Instructor in Medicine*
B.S., 1923 (Washington); Sc.D., 1926, M.D., 1929 (Johns Hopkins)
- HARRIE ROGERS CHAMBERLIN (1953), *Assistant Professor of Pediatrics*
A.B., 1942, M.D., 1945 (Harvard)
- HUBERT ROYSTER CHAMBLEE (1954), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1925 (Medical College of Virginia)

- JOHN RANDOLPH CHAMBLISS (1956), *Clinical Assistant Professor of Medicine*
B.S., 1942 (North Carolina); M.D., 1944 (Harvard)
- JUNE ELIZABETH CHANCE (1953), *Assistant Professor of Psychology in Department of Psychology; Clinical Assistant Professor of Child Psychology in Department of Psychiatry*
A.B., 1947, A.M., 1949 (Maryland); Ph.D., 1952 (Ohio State)
- EMIL THEODORE CHANLETT (1946), *Professor of Sanitary Engineering*
B.S., 1937 (College of the City of New York); M.S.P.H., 1939 (Columbia); M.S.S.E., 1941 (North Carolina)
- FRANCIS STUART CHAPIN, JR. (1949), *Professor of Planning and Research Professor in the Institute for Research in Social Science*
A.B., 1937 (Minnesota); B.Arch.C.P., 1939, M.C.P., 1940 (Massachusetts Institute of Technology)
- MARVIN EDWIN CHAPIN (1952), *Professor of Oral Surgery*
D.D.S., 1938 (Chicago College of Dental Surgery, Loyola University)
- JOHN BRYANT CHASE, JR. (1956), *Associate Professor of Education*
A.B., 1946, M.A., 1950 (North Carolina); Ed.D., 1954 (Virginia)
- MARVIN EMMETT CHEEK (1956), *Assistant Football Coach*
A.B., 1948, A.M., 1949 (North Carolina)
- MARY VIDA CHEEK (1953), *Associate Professor of Nursing and Director of Nursing Service, North Carolina Memorial Hospital*
Diploma in Nursing, 1928 (North Carolina Baptist Hospital); R.N.; B.S., 1935 (Virginia); M.N., 1948 (Washington)
- THOMAS SIDNEY CHEEK (1957), *Clinical Instructor in Medicine*
M.D., 1947 (Medical College of Virginia)
- ALPHONSE F. CHESTNUT (1948), *Associate Professor and Director of the Institute of Fisheries Research*
B.S., 1941 (William and Mary); M.S., 1943, Ph.D., 1949 (Rutgers)
- SIDNEY SHAW CHIPMAN (1950), *Professor of Maternal and Child Health and Clinical Professor of Pediatrics*
B.A., 1924 (Acadia); M.D., 1928 (McGill); M.P.H., 1947 (Yale)
- DWIGHT LANIER CLARK (1957), *Assistant Professor of Oral Surgery*
D.D.S., 1954 (North Carolina)
- HENRY TOOLE CLARK, JR. (1950), *Administrator of the Division of Health Affairs*
A.B., 1937 (North Carolina); M.D., 1944 (Rochester)
- MARY GILL CLARKE (1956), *Assistant Professor of Psychology in Departments of Psychiatry and Psychology*
A.B., 1940 (Woman's College, North Carolina); M.A., 1943 (Minnesota); Ph.D., 1954 (Duke)
- ⁶JOHN STROTHER CLAYTON (1951), *Assistant Professor of Radio, Television, and Motion Pictures*
A.B., 1949, M.A., 1955 (North Carolina)
- FREDERIC NEILL CLEAVELAND (1951), *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
B.A., 1937, M.A., 1942 (Duke); M.A., 1950, Ph.D., 1951 (Princeton)
- AMBROSE AUGUSTINE CLEGG, JR. (1958), *Lieutenant (junior grade), United States Naval Reserve; Assistant Professor of Naval Science*
B.A., 1950 (St. John's); M.A., 1951 (Columbia); Professional Diploma, 1956 (Columbia)
- GORDON BAYLOR CLEVELAND (1952), *Assistant Professor of Political Science and Adviser in the College of Arts and Sciences*
B.S., 1938 (Davidson); M.S., 1947 (Alabama Polytechnic Institute); Ph.D., 1957 (North Carolina)
- ALBERT COATES (1923), *Professor of Law and Director of the Institute of Government*
A.B., 1918 (North Carolina); LL.B., 1923 (Harvard)
- LUCIAN GRAVES COBLE (1951), *Clinical Professor of Prosthodontics*
D.D.S., 1908 (Baltimore College of Dental Surgery)
- CARL M. COCHRANE (1956), *Instructor in Psychology in Department of Psychiatry*
B.A., 1950 (Guilford College)

6. Absent on leave, 1958-1959.

- GEORGE HARRY COCOLAS (1958), *Assistant Professor of Pharmaceutical Chemistry*
B.S. in Phar., 1952 (Connecticut); Ph.D., 1956 (North Carolina)
- JOFFRE LANNING COE (1948), *Assistant Professor of Anthropology and Director of the Research Laboratories of Anthropology*
A.B., 1944 (North Carolina); M.A., 1948 (Michigan)
- FREDERIC EDWARD COENEN (1931), *Professor of German*
A.B., 1928, A.M., 1930 (Arizona); Ph.D., 1936 (North Carolina)
- AVERY BERLOW COHAN (1957), *Lecturer in Business Administration*
A.B., 1934 (Cornell); A.M., 1942 (Columbia)
- ROBERT ERVIN COKER (1922), *Kenan Professor of Zoology, Emeritus (1949)*
S.B., 1896, S.M., 1897 (North Carolina); Ph.D., 1906 (Johns Hopkins); Sc.D., 1947 (South Carolina)
- ROBERT ERVIN COKER, JR. (1956), *Research Professor in Public Health Administration*
A.B., 1932 (North Carolina); M.D., 1940, M.P.H., 1947 (Johns Hopkins)
- WILLIAM ALLAN COLES (1958), *Assistant Professor of English*
B.A., 1951, M.A., 1952, Ph.D., 1957 (Harvard)
- ELWOOD BROGDEN COLEY (1955), *Clinical Instructor in Pediatrics*
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)
- FRANCIS NASH COLLIER, JR. (1957), *Associate Professor of Chemistry*
B.S., 1942 (Howard College); M.S., 1949, Ph.D., 1957 (Ohio State)
- JAMES P. COLLMAN (1958), *Instructor in Chemistry*
B.S., 1954, M.S., 1956 (Nebraska); Ph.D., 1958 (Illinois)
- OWEN SERGESON CONNELLY (1958), *Instructor in Social Science*
B.S., 1948, M.A., 1949 (Wake Forest)
- OLAN VICTOR COOK (1931), *Associate Professor, Associate University Librarian*
A.B., 1929, A.B. in L.S., 1932 (North Carolina)
- ALBERT DERWIN COOPER (1940), *Clinical Instructor in Medicine*
M.D., 1931, A.B., 1932 (George Washington)
- GEORGE MARION COOPER (1956), *Clinical Instructor in Surgery*
B.A., 1941 (North Carolina); M.D., 1944 (Virginia)
- SHERWIN HARRY COOPER (1957), *Instructor in Geography*
B.S., 1949 (Cornell); M.A., 1952 (Michigan)
- NORMAN CORDON (1948), *North Carolina Music Program, Extension Division*
Mus.D., 1946 (North Carolina)
- OLIVER KELLY CORNWELL (1935), *Professor of Physical Education*
A.B., 1920 (Wittenberg); M.A., 1929 (Ohio State); Ed.D., (Catawba)
- WILLIAM WALTER CORT (1953), *Research Professor in Parasitology*
A.B., 1909 (Colorado College); A.M., 1911, Ph.D., 1914 (Illinois); Sc.D. (Hon.) (North Carolina; Colorado College)
- DONALD PAUL COSTELLO (1935), *Kenan Professor of Zoology*
A.B., 1930 (College of the City of Detroit); Ph.D., 1934 (Pennsylvania)
- LYMAN ATKINSON COTTEN (1941), *Associate Professor of English*
A.B., 1936 (North Carolina); Ph.D., 1941 (Yale)
- JOHN NATHANIEL COUCH (1917), *Kenan Professor of Botany*
A.B., 1919, A.M., 1922, Ph.D., 1924 (North Carolina); Sc.D., (Catawba)
- DUDLEY JOHNSTONE COWDEN (1935), *Professor of Economic Statistics*
A.B., 1919 (Grinnell); A.M., 1922 (Chicago); Ph.D., 1931 (Columbia)
- PORTER COWLES (1933), *Assistant Director of The University of North Carolina Press*
A.B., 1933 (North Carolina)
- ERNEST CRAIGE (1952), *Associate Professor of Medicine*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)
- †CLIFTON EARL CRANDALL (1955), *Assistant Professor of Oral Diagnosis and Treatment Planning*
B.S., 1949 (East Carolina Teachers College); D.D.S., 1953 (Medical College of Virginia)

- GEORGE WILLIAM CRANE (1952), *Clinical Assistant Professor of Medicine (Dermatology)*
M.D., 1945 (Northwestern)
- HARRY WOLVEN CRANE (1920), *Professor of Psychology and Psychological Consultant, Emeritus (1956)*
A.B., 1909, A.M., 1910, Ph.D., 1913 (Michigan)
- EUGENE BENSON CRAWFORD, JR. (1951), *Associate Director of North Carolina Memorial Hospital and Assistant Professor of Hospital Administration*
S.B., 1948 (North Carolina)
- HORACE DOWNS CROCKFORD (1921), *Professor of Chemistry*
B.S., 1920 (North Carolina State); S.M., 1923, Ph.D., 1926 (North Carolina)
- WILLIAM JAMES CROMARTIE (1951), *Associate Professor of Bacteriology and Medicine and Director of the Bacteriological and Serological Laboratories*
M.D., 1937 (Emory)
- RICHARD SIDNEY CROMWELL (1958), *Instructor in Social Science*
B.A., 1949 (Southern California); M.A., 1955 (Stanford)
- ARNOLD EUGENE CROTTY (1958), *Lecturer in Accounting*
B.C.S., 1950 (National Business College); B.S., 1955, M.B.A., 1957 (Virginia)
- ^{7a}TIHAMER ZOLTAN CSAKY (1951), *Associate Professor of Pharmacology*
M.D., 1939 (University of Budapest, Hungary)
- PAUL MAHAN CUMMINGS, JR. (1957), *Assistant Professor of Periodontology and Oral Pathology*
B.S., 1944, D.D.S., 1953 (Pittsburgh)
- EDWARD CHARLES CURNEN, JR. (1952), *Professor of Pediatrics*
A.B., 1931 (Yale); M.D., 1935 (Harvard)
- THOMAS EDWIN CURTIS (1954), *Assistant Professor of Psychiatry*
M.D., 1950 (Duke)
- WILLIAM GRANT DAHLSTROM (1953), *Associate Professor of Psychology in Department of Psychology; Clinical Associate Professor of Psychology in Department of Psychiatry*
B.A., 1944, Ph.D., 1949 (Minnesota)
- RUTH DALRYMPLE (1951), *Professor of Nursing and Administrative Assistant to the Dean of the School of Nursing*
B.S., 1937 (Muskingum); M.N., 1940, M.S., 1952 (Western Reserve); R.N.
- JOHN PERCY DALZELL (1937), *Professor of Law*
A.B., 1922, LL.B., 1924 (Minnesota)
- FRANK HAYES DANIEL (1958), *Assistant Professor of Pedodontics*
A.B., 1951 (Catawba College); D.D.S., 1956, M.S., 1958 (North Carolina)
- GEORGE B. DANIEL (1957), *Instructor in French*
A.B., 1949, M.A., 1950 (Emory)
- HARVEY W. DANIEL (1956), *Lecturer in Astronomy*
A.B., 1949 (North Carolina)
- WILLIAM JOHN DANIEL (1938), *Professor of Psychology*
A.B., 1938 (Antioch College); Ph.D., 1942 (North Carolina)
- ⁸WAYNE ALLEN DANIELSON (1959), *Associate Professor of Journalism*
B.A., 1952 (Iowa); M.A., 1953, Ph.D., 1957 (Stanford)
- ⁹JOHN FREDERICK DASHIELL (1919), *Kenan Professor of Psychology, Emeritus (1958)*
B.S., 1908, B.Lit., 1909, Sc.D., 1949 (Evansville College); M.A., 1910, Ph.D., 1913 (Columbia)
- JANIS HAZELTON DAVID (1958), *Instructor in Nursing*
Diploma in Nursing, 1937 (Flower-Fifth Avenue Hospital, New York); R.N.; B.S., 1947, M.A., 1958 (New York University)
- DAVID A. DAVIS (1952), *Professor of Surgery in Charge of Anaesthesiology*
M.D., 1941 (Vanderbilt)

^{7a}. Absent on leave, May 1, 1958, to, March 5, 1959.

⁸. Effective January 27, 1959.

⁹. Retired August 31, 1958.

- HARRY ELLERBEE DAVIS (1930), *Professor of Dramatic Art and Associate Director of The Carolina Playmakers*
A.B., 1927 (South Carolina); M.A., 1940 (Columbia)
- JAMES EVANS DAVIS (1954), *Clinical Instructor in Surgery*
A.B., 1940 (North Carolina); M.D., 1943 (Pennsylvania)
- LAMBERT DAVIS (1948), *Director of The University of North Carolina Press*
B.A., 1925, M.A., 1926 (Virginia)
- ROBERT PAUL DAVIS (1957), *Assistant Professor of Medicine*
A.B., 1947, M.D., 1951, A.M., 1955 (Harvard)
- RAYMOND HOWARD DAWSON (1958), *Instructor in Political Science and Adviser in the General College*
B.A., 1949 (College of the Ozarks); M.A., 1951 (Vanderbilt); Ph.D., 1958 (North Carolina)
- WILLIAM WELLESLEY DEMERITT (1951), *Professor of Pedodontics, Assistant Dean of the School of Dentistry, and Superintendent of Dental Clinics*
D.D.S., 1938 (Emory)
- W. C. DENISON (1958), *Visiting Assistant Professor of Botany*
A.B., A.M., 1950 (Oberlin College); Ph.D., 1956 (Cornell)
- EARL EDWARD DEUBLER, JR. (1956), *Associate Professor in the Institute of Fisheries Research*
B.S., 1950 (Moravian College); Ph.D., 1955 (Cornell)
- BRYCE SELIGMAN DEWITT (1956), *Visiting Research Professor of Physics*
S.B., 1943, M.A., 1947, Ph.D., 1950 (Harvard)
- CÉCILE MORETTE DEWITT (1956), *Visiting Research Professor of Physics*
License-es-sciences, 1943 (University of Caen, Calvados, France); Diplome d'Etudes Superieures, 1944, Doctorat d'Etat, 1947 (University of Paris, France)
- WILLIAM MORTON DEY (1909), *Kenan Professor of the Romance Languages and Literatures, Emeritus (1950)*
B.A., M.A., 1902 (Virginia); A.M., 1904, Ph.D., 1906 (Harvard); Chevalier of the Legion of Honor (France), 1949
- EARL LOUIS DIAMOND (1957), *Assistant Professor of Biostatistics in the School of Public Health*
A.B., 1950 (Miami); M.A., 1952, Ph.D., 1958 (North Carolina)
- 10 JAMES WESLEY DIMMICK (1955), *Instructor in Social Science*
A.B., 1953, M.A., 1954 (Florida)
- JAMES ROBERT DINEEN (1958), *Clinical Instructor in Surgery (Orthopaedics)*
M.D., 1945 (Rochester)
- GEORGE OSMORE DOAK (1949), *Associate Professor of Experimental Medicine*
B.S., in Chem., 1929, B.S. in Phar., 1930 (Saskatchewan); M.S., 1932, Ph.D., 1934 (Wisconsin)
- JAMES TALMADGE DOBBINS (1918), *Professor of Chemistry*
A.B., 1911, A.M., 1912, Ph.D., 1914 (North Carolina)
- DAVID PHILLIP DOBSON (1955), *Professor of Prosthodontics*
D.D.S., 1941, M.S., 1942 (State University of Iowa)
- RICHARD L. DOBSON (1957), *Assistant Professor of Medicine*
M.D., 1953 (Chicago)
- CHARLES E. DOLAN (1956), *Demonstration and Laboratory Assistant in Physics*
B.A., 1934 (Loyola College)
- MARGARET BAGGETT DOLAN (1950), *Associate Professor of Public Health Nursing*
Diploma, 1935 (School of Nursing, Georgetown University); R.N.; B.S.P.H.N., 1944 (North Carolina); M.A., 1953 (Columbia)
- JAMES FORD DONNELLY (1955), *Clinical Associate Professor of Obstetrics and Gynecology*
A.B., 1935 (Harvard); M.D., 1939 (Chicago)
- THOMAS GEORGE DONNELLY (1956), *Research Associate Professor of Biostatistics in the School of Public Health and Institute of Statistics*
B.A., 1947, M.A., 1948 (Queen's University, Canada); Ph.D., 1957 (North Carolina)

- ¹¹DANIEL L. DONOVAN (1954), *Assistant Professor of Medicine and Preventive Medicine*
A.B., 1945 (Holy Cross); M.D., 1947 (Loyola)
- JOHN DEWEY DORSETT, JR. (1956), *Assistant Professor of Medicine*
A.B., 1947 (North Carolina); M.D., 1951 (Washington)
- WILLIAM EDWARD DOSSEL (1954), *Assistant Professor of Anatomy*
A.B., 1949 (Illinois College); M.S., 1950 (Marquette); Ph.D., 1954 (Johns Hopkins)
- ¹²ELISHA PEAIRS DOUGLASS (1952), *Associate Professor of History*
A.B., 1939 (Princeton); M.S., 1941 (Columbia); Ph.D., 1949 (Yale)
- RICHARD PFAFF DOUTHIT (1956), *Instructor in English*
B.A., 1951 (Berea College); M.A., 1953 (Louisiana State)
- ALLAN WATSON DOWNIE (1957), *Assistant Professor of Neurologic Medicine*
M.B., Ch.B., 1946 (Aberdeen, Scotland)
- FRANK MARION DUFFEY (1938), *Associate Professor of Spanish and Adviser in the College of Arts and Sciences*
A.B., 1938 (Miami University); A.M., 1940, Ph.D., 1950 (North Carolina)
- GORDON SHELTON DUGGER (1954), *Associate Professor of Surgery (Neuro-Surgery)*
A.B., 1941 (North Carolina); M.D., 1945 (Johns Hopkins)
- DAVID BEATTIE DUNCAN (1956), *Visiting Professor of Statistics*
B.Sc.Agr., 1938, B.A., 1941 (Sydney); Ph.D., 1947 (Iowa State)
- RALPH LIVINGSTON DUNLAP (1957), *Assistant Professor of Psychology in Departments of Psychiatry and Psychology*
A.B., 1949 (Antioch); M.A., 1951, Ph.D., 1953 (Ohio State)
- JOHN EDWARD DYKSTRA (1940), *Professor of Industrial Management*
C.E., 1930 (Rensselaer); M.B.A., 1932, D.C.S., 1936 (Harvard)
- PATRICK F. EAREY (1957), *Lecturer in Physical Education*
A.B., 1951, M.A., 1952 (North Carolina)
- ELEANOR BEAMER EASLEY (1953), *Clinical Assistant Professor of Obstetrics and Gynecology*
B.A., 1928 (Idaho); M.A., 1929 (Iowa); M.D., 1934 (Duke)
- MYRL LUA-FRANCES EBERT (1952), *Associate Professor of Librarianship and Librarian, Division of Health Affairs*
B.S., 1943, B.S. in L.S., 1945 (Peabody); M.S., 1951 (Columbia)
- STACEY KNIGHT EBERT (1953), *Assistant Professor of Education*
B.A., 1939 (State Teachers College, Florence, Alabama); M.A., 1950 (Peabody)
- CHARLES ERNEST EDGE (1958), *Instructor in English*
A.B., 1947, M.A., 1948 (North Carolina); Ph.D., 1958 (Duke)
- FLOYD HARRIS EDMISTER (1922), *Professor of Chemistry, Emeritus (1952)*
B.S., 1912, Ph.D., 1918 (Syracuse); M.S., 1913 (Louisiana State)
- ¹³DUBOSE EGGLESTON (1957), *Instructor in Surgery*
A.B., 1933 (University of South); B.S., 1937 (Lenoir Rhyne); M.D., 1940 (Medical College of South Carolina)
- ^{13a}JOHN M. EHLE, JR. (1951), *Associate Professor of Radio, Television, and Motion Pictures*
A.B., 1949, A.M., 1953 (North Carolina)
- NORMAN ELLSWORTH ELIASON (1946), *Professor of English*
A.B., 1927 (Luther College); M.A., 1931 (Iowa); Ph.D., 1936 (Johns Hopkins)
- FRED WILSON ELLIS (1944), *Associate Professor of Pharmacology*
B.S., 1936 (South Carolina); M.S., 1938 (Florida); Ph.D., 1941 (Maryland); M.D., 1951 (Duke)
- ¹⁴STEPHEN ALBERT EMERY (1928), *Professor of Philosophy*
A.B., 1923, Ph.D., 1928 (Cornell)
- WILLIAM LOUIS ENGELS (1937), *Professor of Zoology*
B.S., 1930 (Notre Dame); Ph.D., 1937 (California)

11. Resigned February 15, 1958.

12. Absent on leave, 1958-1959.

13. Resigned October 31, 1958.

13a. Absent on leave, fall semester, 1958-1959.

14. Absent on leave, fall, 1958, as Kenan Professor for the Term of One Semester.

- ALFRED GARVIN ENGSTROM (1936), *Professor of French*
A.B., 1933, A.M., 1935, Ph.D., 1941 (North Carolina)
- PRESTON HERSCHEL EPPS (1938), *Kenan Professor of Greek*
A.B., 1915, A.M., 1917 (North Carolina); Ph.D., 1928 (Chicago)
- CHARLES PERRY ERICKSON (1931), *Director of Athletics*
B.S. in Civ. Eng'g., 1931 (North Carolina)
- GEORGE HYNDMAN ESSER, JR. (1948), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1942 (Virginia Military Institute); LL.B., 1948 (Harvard)
- DAVID SAVAGE EVANS (1958), *Assistant Director of the Institute of Government*
A.B., 1957, LL.B., 1958 (North Carolina)
- MARVIN RATLEDGE EVANS (1952), *Professor of Oral Diagnosis and Treatment Planning*
D.D.S., 1936 (Maryland); M.S., 1955 (Pennsylvania)
- JOHN A. EWING (1954), *Assistant Professor of Psychiatry*
M.B., Ch.B., 1946, M.D., 1954 (Edinburgh, Scotland); D.P.M., 1950 (London)
- JOHN DOUGLAS EYRE (1957), *Associate Professor of Geography*
A.B., 1945, M.A., 1947, Ph.D., 1951 (Michigan)
- WILLIAM EARL FAHY (1952), *Associate Professor in the Institute of Fisheries Research*
B.S., 1946 (Cornell); Ph.D., 1951 (Rochester)
- THOMAS WOHLSEN FARMER (1952), *Professor of Neurological Medicine*
A.B., 1935, M.D., 1941 (Harvard); M.A., 1937 (Duke)
- PRESTON COOKE FARRAR (1930), *Professor of Education, Emeritus (1945)*
A.B., 1891 (Washington and Jefferson); M.A., 1904 (Columbia)
- 15 RASHI FEIN (1952), *Associate Professor of Economics*
B.A., 1948, Ph.D., 1956 (Johns Hopkins)
- GEORGE BURTON FERGUSON (1953), *Clinical Consultant in Surgery (Otolaryngology)*
M.D., 1932 (Jefferson); M.Sc., 1936 (Pennsylvania)
- JOHN HOWARD FERGUSON (1943), *Professor of Physiology*
B.A., 1921 (Cape Town); B.A., 1925, M.A., 1931 (Oxford); M.D., 1928 (Harvard); L.M.S.S.A., 1931 (London); F.A.C.P., 1945; D.Sc., 1957 (Cape Town)
- RICHARD ALEXANDER FEWELL (1952), *Clinical Instructor in Medicine*
A.B., 1943 (Princeton); M.D., 1945 (Pennsylvania)
- LEONARD EARL FIELDS (1952), *Clinical Instructor in Medicine*
A.B., 1921 (North Carolina); M.D., 1929 (Pennsylvania)
- SAMUEL FILLENBAUM (1958), *Assistant Professor of Psychology*
B.A., 1952 (City College of New York); M.A., 1954, Ph.D., 1956 (California)
- JOHN PATON FILLEY (1958), *Assistant Professor of Mental Health*
B.S., 1948, M.D., 1952 (Yale)
- ARTHUR EMIL FINK (1945), *Professor of Social Work and Dean of the School of Social Work*
A.B., 1924, A.M., 1930, Ph.D., 1936 (Pennsylvania); M.S.W., 1937 (Pennsylvania School of Social Work)
- RUTH WHITE FINK (1947), *Associate Professor of Physical Education and Director of Physical Education for Women*
B.Sc., 1926, A.M., 1936 (Ohio State)
- JANET JORDAN FISCHER (1952), *Instructor in Medicine and Research Associate in Bacteriology*
A.B., 1944 (Vassar); M.D., 1948 (Johns Hopkins)
- NEWTON DUCHAN FISCHER (1952), *Associate Professor of Surgery*
B.S., 1942, A.B., 1943, M.D., 1945 (Texas)
- FOSTER FITZ-SIMONS (1942), *Associate Professor of Dramatic Art*
A.B., 1934 (North Carolina)
- WOLFGANG BERNARD FLEISCHMANN (1957), *Instructor in English*
B.A., 1950 (St. John's College); M.A., 1951, Ph.D., 1954 (North Carolina)
- RALPH GIBSON FLEMING (1946), *Clinical Assistant Professor of Medicine*
M.D., 1936 (Pennsylvania)

- WILLIAM LEROY FLEMING (1952), *Professor of Preventive Medicine and Assistant Dean of the School of Medicine*
B.A., 1925, M.S., 1927, M.D., 1932 (Vanderbilt)
- CHARLES ELY FLOWERS, JR. (1952), *Associate Professor of Obstetrics and Gynecology*
B.S., 1941 (The Citadel); M.D., 1944 (Johns Hopkins)
- ENOLA SUE FLOWERS (1957), *Clinical Instructor in Physical Therapy*
B.S., 1944 (High Point College)
- JOE SUMMERS FLOYD, JR. (1956), *Associate Professor of Finance*
B.S., 1943 (Florida); M.A., 1944, Ph.D., 1950 (North Carolina)
- JOHN BOYD FLYNN (1957), *Assistant Professor*
B.A., 1941 (Davidson); M.B.A., 1950 (Pennsylvania)
- DIANE GUY FOGLEMAN (1958), *Instructor in Nursing*
B.S.N., 1957 (North Carolina); R.N.
- ELEANOR ANN FORBES (1953), *Assistant Professor of Dental Hygiene*
R.D.H., B.S., 1953 (Temple)
- CHRISTOPHER COLUMBUS FORDHAM, III (1957), *Instructor in Medicine*
M.D., 1951 (Harvard)
- NEAL M. FORNEY, JR. (1956), *Assistant Director of the Institute of Government*
A.B., 1958 (North Carolina)
- EARL ARWIN FORREST, JR. (1958), *Chief, Acquisitions Department, University Library*
B.S., 1938 (North Texas State College); B.S., 1947, M.S., 1951 (Columbia)
- WILLIAM WOMBLE FORREST (1956), *Assistant Professor of Pathology*
B.S., 1946 (North Carolina); M.D., 1948 (Harvard)
- WENDELL FORST (1958), *Research Associate in Chemistry*
B.Sc., 1940 (Prague); Ph.D., 1955 (McGill)
- ¹⁶PATRICIA M. FOSSUM (1957), *Instructor in Psychology in the Department of Psychiatry*
A.B., 1953, M.S., 1955 (Miami)
- EDWARD LOWELL FOSTER (1957), *Commander, United States Navy; Associate Professor of Naval Science*
B.S., 1953 (Maryland); Diploma, 1952 (U. S. Naval War College, Newport)
- BENJAMIN EAGLES FOUNTAIN, JR. (1958), *Assistant Professor of Education*
A.B., 1950, M.Ed., 1952, Ph.D., 1958 (North Carolina)
- CLIFFORD MCCLAIN FOUST, JR. (1957), *Assistant Professor of History*
A.B., 1949 (Syracuse); M.A., 1951, Ph.D., 1957 (Chicago)
- IRA FOWLER (1953), *Assistant Professor of Anatomy*
B.S., 1942 (Louisiana Polytechnic Institute); M.S., 1949 (Louisiana State); Ph.D., 1952 (Northwestern)
- ¹⁷CARLYLE JAMES FRAREY (1954), *Associate Professor of Library Science*
A.B., 1939 (Oberlin); B.S., 1947, M.S., 1951 (Columbia)
- RICHARD LANE FRAUTSCHI (1958), *Assistant Professor of French*
B.A., 1949 (Wisconsin); M.A., 1953, Ph.D., 1958 (Harvard)
- KEENER CHAPMAN FRAZER (1921), *Professor of Political Science*
A.B., 1920 (Wofford); A.M., 1921 (North Carolina); dip. Institut Universitaire de Hautes Etudes Internationales, 1932 (Geneva); L.H.D. (Birmingham-Southern College)
- HERBERT W. FRED (1956), *Instructor in Music*
B.M.E., 1945, M.M., 1949 (Northwestern)
- LEON DAVID FREEDMAN (1949), *Assistant Professor of Experimental Medicine*
A.B., 1941, A.M., 1947, Ph.D., 1949 (Johns Hopkins)
- JEAN FREEMAN (1941), *Lecturer in Library Science and Assistant to the Dean of the School of Library Science*
A.B., in L.S., 1933 (Woman's College, North Carolina); B.A., 1958 (North Carolina)
- KATHERYN EAVES FREEMAN (1954), *Pharmacy Librarian, Division of Health Affairs*
A.B., 1929 (Woman's College, North Carolina)
- WERNER PAUL FRIEDERICH (1935), *Professor of German and Comparative Literature*
A.M., 1929, Ph.D., 1932 (Harvard); Schweizerisches Staatsexamen, 1931.

16. Resigned December 20, 1958.

17. Absent on leave, fall semester, 1958-1959.

- GALEN ROGER FRYSSINGER (1958), *Research Associate in Chemistry*
B.S., 1953 (Juniata College); M.S., 1955, Ph.D., 1956 (Yale)
- CHARLES BENJAMIN FULGHUM, JR. (1958), *Clinical Instructor in Psychiatry*
B.S., 1950, M.D., 1954 (North Carolina)
- HENRY FLEMING FULLER (1956), *Clinical Associate Professor of Obstetrics and Gynecology*
B.S., 1932 (Wake Forest); M.D., 1936 (Pennsylvania)
- ROWLAND ELDER FULLILOVE (1958), *Instructor in Psychiatry*
M.D., 1951 (Maryland)
- JOHN THOMAS FULTON (1958), *Professor of Dental Epidemiology in the School of Public Health*
D.D.S., 1925 (Ohio State)
- GORDON SAMUEL FYFE (1954), *Assistant Professor of Marketing*
A.B., 1946 (Rochester); M.B.A., 1948 (Pennsylvania)
- ROY E. GAINES (1957), *Clinical Instructor in Prosthodontics*
B.S., 1950 (State College); D.D.S., 1957 (North Carolina)
- DANIEL GALLIK (1953), *Research Associate in the Institute for Research in Social Science*
A.B., 1950 (Syracuse)
- LOFTON LEROY GARNER (1931), *Associate Professor of Mathematics*
A.B., 1925, A.M., 1927 (North Carolina)
- MITCHELL BENNETT GARRETT (1927), *Professor of Modern European History, Emeritus (1951)*
A.B., 1900, A.M., 1903, LL.D. (Howard College); Ph.D., 1910 (Cornell)
- WARFIELD GARSON (1955), *Research Professor of Experimental Medicine*
A.B., 1941 (U.C.L.A.); M.D., 1945 (Southern California School of Medicine); M.P.H., 1954 (Johns Hopkins, School of Hygiene and Public Health)
- OSCAR DAVID GARVIN (1944), *Visiting Associate Professor of Public Health Administration and Clinical Associate Professor of Preventive Medicine*
M.D., 1932 (Medical College of the State of South Carolina); M.P.H., 1939 (Johns Hopkins)
- JAMES REUBEN GASKIN (1950), *Associate Professor of English and Assistant to the Dean of the Graduate School*
A.B., 1942 (Chattanooga); Ph.D., 1952 (North Carolina)
- BEULAH THERESA GAUTEFALD (1954), *Associate Professor of Nursing (Pediatric Nursing)*
Diploma in Nursing, 1929; R.N.; B.S., 1936, M.S., 1949 (Minnesota)
- SYLVESTER PARKER GAY (1952), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1926 (Atlanta-Southern Dental College)
- WILLIAM MONROE GEER (1947), *Instructor in Social Science*
A.B., 1935 (The Citadel); M.A., 1936 (Emory)
- CLAUDE SWANSON GEORGE, JR. (1954), *Associate Professor of Industrial Management and Assistant Dean of the School of Business Administration*
B.S., 1943, M.S., 1951 (North Carolina); Ph.D., 1953 (State University of Iowa)
- WESLEY CRITZ GEORGE (1912), *Professor of Histology and Embryology*
A.B., 1911, A.M., 1912, Ph.D., 1918 (North Carolina)
- CHARLOTTE GEORGI (1955), *Chief, Business Administration and Social Science Division, University Library*
B.A., 1942, M.A., 1943 (Buffalo); M.S. in L.S., 1956 (North Carolina)
- ROBERT J. GETTY (1958), *Paddison Professor of Classics*
B.A., 1928 (Queen's University of Belfast); B.A., 1930, M.A., 1934 (Cambridge)
- J. SULLIVAN GIBSON (1947), *Associate Professor of Geography*
B.A., 1926 (Abilene Christian College); Ph.M., 1929 (Wisconsin); Ph.D., 1934 (Clark)
- HUGO GIDUZ (1925), *Professor of French, Emeritus (1952)*
A.B., 1905 (Harvard); Diploma, 1923 (Grenoble); Officer d'Académie République Française, 1951
- ALICE JOHNSON GIFFORD (1951), *Professor of Nursing (Community Nursing)*
A.B., 1935 (Woman's College, North Carolina); M.N., 1938 (Yale); C.P.H.N., 1941 (Western Reserve); R.N.

- FEDERICO GUILLERMO GIL (1945), *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
J.D., 1940, D.Pol.Sci., 1941, D.Dip.Law, 1942 (Habana)
- JOHN PHILIP GILLIN (1946), *Professor of Anthropology and Research Professor in the Institute for Research in Social Science*
A.B., 1927, A.M., 1930 (Wisconsin); A.M., 1931, Ph.D., 1934 (Harvard)
- RUTH GILPIN (1954), *Associate Professor of Social Work*
A.B., 1930 (Wilson); M.A., 1931 (Pittsburgh); M.S.W., 1940 (Pennsylvania); Advanced Certificate, 1951 (Pennsylvania)
- RICHARD L. GLASSER (1957), *Instructor in Physiology*
A.B., 1949 (Johns Hopkins); Ph.D., 1957 (Maryland)
- ROLFE E. GLOVER, III (1956), *Assistant Professor of Physics*
B.A., 1948 (Bowdoin College); B.S., 1948 (Massachusetts Institute of Technology); Ph.D., 1953 (University of Göttingen, Germany)
- BERNARD GLUECK, SR. (1956), *Visiting Clinical Professor of Psychiatry*
M.D., 1909 (Georgetown)
- JAMES LOGAN GODFREY (1936), *Professor of English History and Dean of the Faculty*
A.B., 1931 (Roanoke); A.M., 1933 (North Carolina); Ph.D., 1942 (Chicago)
- HAROLD LACY GODWIN (1956), *Clinical Instructor in Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)
- GEORGE GOE (1957), *Lecturer in Philosophy*
M.A., 1951 (New School for Social Research)
- WALTER GOLDE (1957), *Associate Director, Institute of Opera, Extension Division, Lecturer in Voice to the Extension Division*
A.B., 1910 (Dartmouth College)
- CARL WILLIAM GOTTSCHALK (1953), *Assistant Professor of Medicine*
B.S., 1942 (Roanoke College); M.D., 1945 (Virginia)
- HILTON T. GOULSON (1957), *Research Associate in Parasitology*
A.B., 1952 (Luther College); M.S.P.H., 1953, Ph.D., 1957 (North Carolina)
- JOHN BORDEN GRAHAM (1946), *Professor of Pathology*
B.S., 1938 (Davidson); M.D., 1942 (Cornell)
- WILLARD J. GRAHAM (1952), *Professor of Accounting and Director, Executive Program, School of Business Administration*
A.B., 1921, LL.D. (Tarkio College); A.M., 1924, Ph.D., 1934 (Chicago); C.P.A., 1925 (State of Illinois)
- WILLIAM ALEXANDER GRAHAM (1940), *Clinical Instructor in Obstetrics and Gynecology*
A.B., 1928 (North Carolina); M.D., 1932 (Pennsylvania)
- RUSSELL B. GRAVES (1958), *Associate Professor of Dramatic Art*
B.F.A., 1948, M.F.A., 1949 (Carnegie Institute of Technology); Ph.D., 1953 (Florida State)
- FLETCHER MELVIN GREEN (1921), *Kenan Professor of History and Research Professor in the Institute for Research in Social Science*
Ph.B., 1920 (Emory); A.M., 1922, Ph.D., 1927 (North Carolina); Litt.D. (Emory)
- PHILIP PALMER GREEN, JR. (1949), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1943 (Princeton); LL.B., 1949 (Harvard)
- BERNARD GEORGE GREENBERG (1949), *Professor of Biostatistics in the Institute of Statistics and the School of Public Health*
B.S., 1939 (College of the City of New York); Ph.D., 1949 (North Carolina State)
- THOMAS YOUNG GREET (1958), *Instructor in English*
B.A., 1947 (Duke); M.A., 1950 (North Carolina)
- VICTOR AUGUST GREULACH (1949), *Professor of Botany and Adviser in the College of Arts and Sciences*
A.B., 1929 (DePauw); M.S., 1933, Ph.D., 1940 (Ohio State)
- MATTHEW HILL GRIMMETT (1953), *Clinical Instructor in Pediatrics*
B.A., 1939 (Vanderbilt); M.D., 1943 (Duke)
- JAMES ENNIS GRIZZLE (1957), *Research Associate of Biostatistics in the Institute of Statistics and the School of Public Health*
B.S., 1951 (Berea College); M.S., 1953 (Virginia Polytechnic Institute)

- RUSSELL MARVIN GRUMMAN (1925), *Director of the Extension Division, Emeritus (1956)*
B.H., 1918 (Springfield College)
- ELLEN ELIZABETH GUILLOT (1957), *Associate Professor of Medical Social Work*
B.S., 1930 (Simmons College); Ph.D., 1943 (Pennsylvania)
- JOHN GULICK (1955), *Assistant Professor of Anthropology; Director of Cross-Cultural Laboratory and Research Associate, Institute for Research in Social Science*
A.B., 1949, A.M., 1951, Ph.D., 1953 (Harvard)
- JUNE URIAH GUNTER (1946), *Instructor in Pathology*
A.B., 1931 (North Carolina); M.D., 1936 (Jefferson Medical College)
- PAUL NEWMAN GUTHRIE (1946), *Professor of Economics*
A.B., 1926 (Tennessee); B.D., 1932 (Union Theological Seminary); M.A., 1932, Ph.D., 1946 (Columbia)
- FRANZ GUTTMANN (1939), *Lecturer in Economics, Emeritus (1949); Professor of Economics, Emeritus, University of Göttingen*
D.Ec., 1904 (Strasbourg)
- JOHN MINOR GWYNN (1924), *Professor of Education*
A.B., 1918, A.M., 1927 (North Carolina); Ph.D., 1935 (Yale)
- CHARLES JACOB HALL (1957), *Captain, United States Air Force; Assistant Professor of Air Science*
B.S., 1949 (Howard College)
- 18EVERETT WESLEY HALL (1952), *Kenan Professor of Philosophy*
A.B., 1923, A.M., 1925 (Lawrence); Ph.D., 1929 (Cornell)
- LOUISE MCGWIGAN HALL (1957), *Chief, Humanities Division, University Library*
A.B., 1940, B.S. in L.S., 1941 (North Carolina); M.A. in L.S., 1944 (Illinois)
- ROY G. HALL, JR. (1956), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1951, J.D., 1955 (North Carolina)
- WILLIAM JACKSON HALL (1957), *Visiting Assistant Professor of Statistics*
A.B., 1950 (Johns Hopkins); M.A., 1951 (Michigan); Ph.D., 1955 (North Carolina)
- GEORGE CAVERNO HAM (1951), *Professor of Psychiatry and Consultant in Psychiatry on the Staff of the Institute for Research in Social Science*
M.D., 1937 (Pennsylvania)
- JOSEPH GRÉGOIRE DE ROULHAC HAMILTON (1906), *Kenan Professor of History and Political Science, Emeritus (1948), Consultant of the Southern Historical Collection*
M.A., 1900 (University of the South); Ph.D., 1906 (Columbia); Litt.D. (University of the South; Washington and Lee); LL.D. (North Carolina)
- FRANK WILLIAM HANFT (1931), *Professor of Law*
LL.B., 1924, A.B., 1929, LL.M., 1929 (Minnesota); S.J.D., 1931 (Harvard)
- ANN CATON HANSEN (1958), *Research Associate Professor in Public Health Nursing*
B.S., 1952 (Johns Hopkins); M.P.H., 1956 (North Carolina)
- OSBORNE BENNETT HARDISON, JR. (1957), *Assistant Professor of English*
B.A., 1949, M.A., 1950 (North Carolina); Ph.D., 1956 (Wisconsin)
- JACQUES HARDRÉ (1945), *Professor of French*
Bacc.Sciences-Languages, 1936 (Paris); A.B., 1937 (Guilford); A.M., 1941, Ph.D., 1948 (North Carolina)
- GEORGE WASHINGTON HARDY, III (1958), *Assistant Professor of Law*
A.B., 1954 (Virginia Military Institute); LL.B., 1958 (Louisiana State)
- ROY ALLEN HARE (1954), *Clinical Instructor in Medicine*
B.S., 1942 (Wake Forest); M.D., 1945 (Bowman Gray)
- EUGENE ALEXANDER HARGROVE (1954), *Clinical Associate Professor of Psychiatry and Lecturer in Department of Psychology*
A.B., 1939, M.D., 1942 (Texas)
- JAMES PENROSE HARLAND (1922-23; 1927), *Professor of Archaeology*
A.B., 1913, A.M., 1915, Ph.D., 1920 (Princeton)
- HERBERT SPENCER HARNED, JR. (1958), *Assistant Professor of Pediatrics*
B.S., 1942, M.D., 1945 (Yale)

- GEORGE MILLS HARPER (1950), *Associate Professor of English and Associate Dean of the College of Art and Sciences*
A.B., 1940 (Culver-Stockton College); A.M., 1947 (Florida); Ph.D., 1951 (North Carolina)
- ROBERT NORMENT HARPER (1957), *Clinical Instructor in Psychiatry*
M.D., 1951 (Bowman Gray)
- HAROLD JOSEPH HARRIS (1956), *Instructor in Psychiatry*
B.A., 1946 (Texas); M.D., 1949 (Long Island)
- TYNDALL PEACOCK HARRIS (1957), *Clinical Instructor in Medicine*
B.S., 1947 (North Carolina); M.D., 1950 (Duke)
- ELTON J. HARRISON (1957), *Technical Sergeant, United States Air Force; Instructor in Air Science*
- EARL HORACE HARTSELL (1936), *Associate Professor of English*
A.B., 1924, A.M., 1935, Ph.D., 1942 (North Carolina)
- WALTER H. HARTUNG (1948), *Professor of Pharmaceutical Chemistry, Emeritus (1956)*
A.B., 1918 (Minnesota); Ph.D., 1926 (Wisconsin)
- DAVID ROLLO HAWKINS (1952), *Associate Professor of Psychiatry*
B.A., 1945 (Amherst); M.D., 1946 (Rochester)
- RUTH WARWICK HAY (1940), *Professor of Public Health Nursing*
Diploma, 1920 (Francis Payne Bolton School of Nursing, Western Reserve); R.N.; B.A., 1916 (Ohio Wesleyan); M.S., 1925 (Western Reserve)
- ¹⁹GLEN HAYDON (1934), *Kenan Professor of Music*
A.B., 1918, A.M., 1921 (California); Ph.D., 1932 (Vienna)
- DONALD BALES HAYMAN (1949), *Assistant Director of the Institute of Government*
A.B., 1940 (Kansas); A.M., 1947 (North Carolina)
- MARGARET ELIZABETH HAYNES (1958), *Instructor in Nursing*
B.S.N., 1942 (Vanderbilt); R.N.; M.P.H., 1953 (North Carolina)
- GEORGE ALEXANDER HEARD (1950), *Professor of Political Science and Dean of the Graduate School*
A.B., 1938 (North Carolina); M.A., 1948, Ph.D., 1951 (Columbia)
- MILTON SYDNEY HEATH (1925), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
A.B., 1917 (Kansas); A.M., 1924, Ph.D., 1938 (Harvard)
- MILTON SYDNEY HEATH, JR. (1957), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1949 (Harvard); LL.B., 1952 (Columbia)
- EDWARD MCGOWAN HEDGPETH (1934), *University Physician and Clinical Associate Professor of Medicine*
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania); F.A.C.P., 1944.
- CLARENCE HEER (1927), *Kenan Professor of Economics, Emeritus (1953)*
A.B., 1914 (Rochester); Ph.D., 1926 (Columbia)
- ARCHIBALD HENDERSON (1899), *Kenan Professor of Mathematics, Emeritus (1948)*
A.B., 1898, A.M., 1899, Ph.D., 1902 (North Carolina); Ph.D., 1915 (Chicago); D.C.L. (University of the South); LL.D. (Tulane; William and Mary); Litt.D. (Oglethorpe; Catawba)
- CHARLES HENDERSON, JR. (1955), *Associate Professor of Classics*
A.B., 1942 (Davidson); M.A., 1947, Ph.D., 1955 (North Carolina)
- LUCILE KELLING HENDERSON (1932), *Professor of Library Science and Dean of the School of Library Science*
A.B., 1917 (Whitman College); B.L.S., 1921 (New York State Library School)
- JAMES RICHARD HENDRICKS (1949), *Associate Professor of Parasitology*
B.S., 1940 (Guilford College); S.M., 1948, Ph.D., 1951 (North Carolina)
- CATHERINE HENLEY (1949), *Research Associate in Zoology*
A.B., 1943, Ph.D., 1949 (North Carolina); M.A., 1947 (Johns Hopkins)
- JOSEPH P. HENNESSEE (1954), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1951 (Idaho); J.D., 1954 (North Carolina)

19. Absent on Kenan leave, fall semester, 1958-1959.

- MARY ELIZABETH HENRY (1946), *Bureau of Correspondence Instruction, Extension Division*
A.B., 1939 (North Carolina)
- JOHN CARROLL HERION (1957), *Instructor in Medicine*
B.S., 1949 (Davidson); M.D., 1953 (Harvard)
- HARRIET LAURA HERRING (1925), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1913 (Meredith); A.M., 1918 (Radcliffe)
- ELLIOTT MCKAUGHAN HESTER (1956), *Clinical Assistant Professor of Pedodontics*
M.S., D.M.D., 1950 (Louisville)
- A. PRICE HEUSNER (1952), *Visiting Professor of Anatomy*
A.B., 1932 (Swarthmore); B.A., 1934, B.Sc., 1935 (Oxford); M.D., 1938 (Harvard)
- THOMAS FELIX HICKERSON (1909), *Kenan Professor of Applied Mathematics, Emeritus (1952)*
Ph.B., 1904, A.M., 1907 (North Carolina); S.B. in Civ.Eng'g., 1909 (Massachusetts Institute of Technology)
- JAMES BENTON HICKEY (1956), *Assistant Football Coach*
A.B., 1942 (William and Mary)
- ROBIN DAVID STEWART HIGHAM (1957), *Instructor in History*
A.B., 1950 (Harvard); M.A., 1953 (Claremont); Ph.D., 1957 (Harvard)
- LESTER BODINE HIGLEY (1953), *Professor of Orthodontics*
B.A., 1922, M.S., 1934 (Grinnell); D.D.S., 1926 (Iowa)
- CLEONE MAE HILL (1958), *Instructor in Nursing*
Diploma in Nursing, 1945 (Garfield Memorial Hospital School of Nursing); R.N.; B.S., 1950 (Eastern Nazarene College); M.A., 1957 (Columbia)
- CONRAD ROLPH HILL (1958), *Lecturer in Advertising in the School of Journalism*
A.B., 1950 (Michigan); M.A., 1958 (Stanford)
- HUGH MEIGHEN HILL (1957), *Assistant Professor of Obstetrics and Gynecology*
B.S., 1948 (Davidson); M.D., 1952 (Johns Hopkins)
- JOHN BENJAMIN HILL (1952), *Assistant Professor of Pharmacology*
B.S., 1945 (Wisconsin); Ph.D., 1950, M.D., 1952 (Columbia)
- MAY DAVIS HILL (1958), *Art Librarian*
B.A., 1943, M.A., 1944, B.S. in L.S., 1955 (North Carolina)
- MICHAEL ARENDELL HILL, JR. (1921), *Professor of Mathematics*
A.B., 1920, A.M., 1922 (North Carolina)
- JOSEPH HILTON (1946), *Assistant Track Coach and Assistant to the Director of Athletics*
A.B., 1940, A.M., 1948 (North Carolina)
- ROBIN LEDBETTER HINSON (1958), *Assistant Professor of Law*
B.S., 1953 (Davidson College); J.D., 1958 (North Carolina)
- RICHARD G. HISKEY (1958), *Assistant Professor of Chemistry*
A.B., 1951 (Kansas State Teachers College); M.S., 1953 (Kansas State College); Ph.D., 1956 (Wayne State)
- JOSEPH MARTIN HITCH (1952), *Clinical Associate Professor of Medicine (Dermatology)*
A.B., 1929 (Delaware); M.D., 1933, M.S., 1938 (Virginia)
- SETH GUILFORD HOBART, JR. (1955), *Clinical Instructor in Surgery (Otolaryngology)*
B.S., 1941 (Virginia Military Institute); M.D., 1950 (Virginia)
- ALLAN WILSON HOBBS (1917), *Professor of Applied Mathematics, Emeritus (1956)*
A.B., 1907 (Guilford College); A.B., 1908 (Haverford); Ph.D., 1917 (Johns Hopkins)
- RICHARD JUNIUS MENDENHALL HOBBS (1929), *Professor of Business Law*
A.B., 1909 (Guilford); A.B., 1911 (Haverford); LL.B., 1914 (Columbia)
- SAMUEL HUNTINGTON HOBBS, JR. (1916), *Professor of Rural Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1916, A.M., 1917 (North Carolina); Ph.D., 1929 (Wisconsin)
- 20WASSILY HOFFDING (1949), *Professor of Statistics*
Ph.D., 1940 (Berlin)

- FRANCES BURNS HOGAN (1946-50; 1953), *Instructor in Physical Education*
B.S., 1943 (Winthrop College); M.A., 1946 (Iowa)
- GEORGE RUHLE HOLCOMB (1957), *Assistant Professor of Anatomy*
B.A., 1950, M.A., 1952, Ph.D., 1956 (Wisconsin)
- MURRY WADE HOLLAND (1956), *Assistant Professor of Crown and Bridge Prosthodontics*
A.B., 1952 (Elon College); D.D.S., 1956 (North Carolina)
- WALTER HOLLANDER, JR. (1956), *Assistant Professor of Medicine and Markle Scholar in Medical Science*
B.S., 1943 (Haverford); M.D., 1950 (Harvard)
- C. HUGH HOLMAN (1949), *Professor of English*
B.S., 1936, B.A., 1938 (Presbyterian College); Ph.D., 1949 (North Carolina)
- URBAN TIGNER HOLMES, JR. (1925), *Kenan Professor of Romance Philology*
A.B., 1920 (Pennsylvania); A.M., 1921, Ph.D., 1923 (Harvard); Litt.D. (Washington and Lee)
- ROY WALTER HOLSTEN (1952), *Assistant to the Dean of the School of Business Administration*
A.B., 1950 (North Carolina)
- SAMUEL M. HOLTON (1948), *Associate Professor of Education*
A.B., 1942, M.Ed., 1947 (Duke); B.S., 1943 (New York); M.A., 1947, Ph.D., 1948 (Yale)
- MAX HOYT HOMMERSAND (1958), *Instructor in Botany*
B.A., 1954, Ph.D., 1958 (California)
- JOHN J. HONIGMANN (1951), *Professor of Anthropology and Research Professor in the Institute for Research in Social Science*
A.B. (Brooklyn College); M.A., 1943, Ph.D., 1947 (Yale)
- CHARLES WRIGHT HOOKER (1949), *Professor of Anatomy*
A.B., 1930, A.M., 1932, Ph.D., 1933 (Duke)
- GEORGE FREDERICK HORNER (1926), *Professor of English*
A.B., 1921, A.M., 1924 (Pennsylvania State); Ph.D., 1938 (North Carolina)
- HAROLD HOTELLING (1946), *Professor of Statistics and Associate Director of the Institute of Statistics*
A.B., 1919, M.Sc., 1921 (Washington); Ph.D., 1924 (Princeton); LL.D. (Chicago)
- HENRY CHARLES HOUSE, JR. (1942), *Associate Professor of Physical Education and Adviser in the General College*
A.B., 1931, A.M., 1943 (North Carolina); Ed.D., 1957 (Columbia)
- ^{20a}JAMES ALBERT HOUSE, JR. (1958), *Assistant Director of the Institute of Government*
A.B., 1952, J.D., 1955 (North Carolina)
- ROBERT BURTON HOUSE (1957), *Chancellor, Emeritus (1957), University Professor of English and Classics*
A.B., 1916 (North Carolina); A.M., 1917 (Harvard); LL.D. (Catawba; Bowdoin)
- JAMES BICKLE HOUSER, III (1957), *Clinical Instructor in Periodontology and Oral Pathology*
A.B., 1950, D.D.S., 1957 (North Carolina)
- ²¹NOEL HARRIS HOUSTON (1957), *Lecturer in Radio, Television, and Motion Pictures*
- ROBERT A. HOWARD (1951), *Assistant Professor of Art and Adviser in the General College*
B.A., M.A., 1949 (Tulsa)
- ALMONTE CHARLES HOWELL (1920), *Professor of English, Secretary of the Faculty, and Adviser to Foreign Students*
A.B., 1917 (Denison); M.A., 1920 (Columbia); Ph.D., 1924 (North Carolina); Prof. Hon., 1948 (San Carlos, Guatemala)
- JAMES BALDWIN HOWELL (1957), *Clinical Associate Professor of Periodontology and Oral Pathology*
B.S., 1942 (Davidson); D.D.S., 1949 (Medical College of Virginia)
- VINTON ASBURY HOYLE (1925), *Professor of Mathematics*
A.B., 1924, A.M., 1925 (North Carolina); Ph.D., 1930 (Princeton)

^{20a}. Resigned December 15, 1958.

²¹. Died September 9, 1958.

- PAUL S. HUBBARD (1958), *Assistant Professor of Physics*
B.S., 1953 (Florida); M.S., 1954, Ph.D., 1958 (Harvard)
- ARTHUR PALMER HUDSON (1930), *Kenan Professor of English*
B.S., 1913, M.A., 1920 (Mississippi); A.M., 1925 (Chicago); Ph.D., 1930 (North Carolina)
- WILLIAM DAVIS HUFFINES (1957), *Instructor in Pathology*
B.S., 1951, M.D., 1955 (North Carolina)
- JACK HUGHES (1953), *Clinical Instructor in Surgery (Urology)*
A.B., 1939 (Davidson); M.D., 1943 (Duke)
- ROBERT BRUCE HUGHES (1957), *Assistant Professor of Education*
B.S., 1949, M.S., 1954 (Washington)
- DOUGLAS GEORGE HUMM (1951), *Associate Professor of Zoology*
B.S., 1939 (Yale); Ph.D., 1948 (Stanford)
- HARVEY RANDOLPH HUMPHREY (1956), *Lieutenant, Supply Corps, United States Navy; Assistant Professor of Naval Science*
B.S., 1948 (United States Naval Academy)
- THOMAS RODNEY HUMPHREY (1957), *Captain, United States Air Force; Assistant Professor of Air Science*
- WALTER SKELLIE HUNT (1957), *Clinical Instructor in Surgery (Orthopaedics)*
B.S., 1937 (North Carolina); M.D., 1940 (Northwestern)
- FLOYD HUNTER (1950), *Professor of Social Work*
B.A., 1939, M.A., 1941 (Chicago); Ph.D., 1951 (North Carolina)
- GROVER CLEVELAND HUNTER, JR. (1952), *Professor of Oral Pathology and Periodontology and Director of Dental Hygiene*
A.B., 1936, D.D.S., 1940 (Emory); M.S., 1941 (Illinois)
- HOWARD RUSSELL HUSE (1920), *Professor of French and Italian*
Ph.B., 1913, Ph.D., 1930 (Chicago)
- EULA ELIZABETH HUX (1956), *Instructor in Nursing*
A.A., 1951 (Louisburg); Diploma in Nursing, 1954, B.S.N., 1956 (Duke); R.N.
- HENRY RUDOLPH IMMERWAHR (1957), *Assistant Professor of Classics*
Dottore in Lettere, 1938 (University of Florence, Italy); Ph.D., 1943 (Yale)
- JAMES CARLTON INGRAM (1952), *Associate Professor of Economics and Research Associate in the Institute for Research in Social Science*
B.S., 1942 (Alabama); M.A., 1947 (Stanford); Ph.D., 1952 (Cornell)
- ROY LEE INGRAM (1947), *Professor of Geology*
B.S., 1941 (North Carolina); M.S. in Geol. and Phys., 1943 (Oklahoma); Ph.D., 1948 (Wisconsin)
- JOSEPH LOGAN IRVIN (1950), *Professor of Biochemistry and Nutrition*
B.S., 1934 (South Carolina); Ph.D., 1938 (Pennsylvania)
- JOSEPH O. IRWIN (1958), *Visiting Professor of Biostatistics in the School of Public Health*
B.A., 1921, M.A., 1923, Sc.D., 1936 (Cambridge); M.Sc., 1924, D.Sc., 1929 (London)
- WILLIAM LENTZ IVEY (1958), *Lecturer in Economics*
B.S., 1948 (Alabama Polytechnic Institute); M.S., 1951 (North Carolina)
- HENRY LEROY IZLAR, JR. (1957), *Clinical Instructor in Medicine*
B.A., 1946, M.D., 1948 (Duke)
- MARILYN ESTHER JACOX (1956), *Research Associate in Chemistry*
A.B., 1951 (Utica College of Syracuse); Ph.D., 1956 (Cornell)
- WALTER P. JAHN (1958), *Visiting Assistant Professor of Child Psychiatry*
M.D., 1949 (Bern, Switzerland)
- RICHARD ELMER JAMERSON (1938), *Professor of Physical Education*
B.S., 1932 (Rice); M.A., 1934, Ed.D., 1949 (Teachers College, Columbia)
- RICHARD C. JARNAGIN (1958), *Instructor in Chemistry*
B.S., 1952 (Southern Methodist); Ph.D., 1958 (Yale)
- WILLIAM C. JARVIS (1958), *Clinical Instructor in Oral Diagnosis and Treatment Planning*
D.D.S., 1958 (North Carolina)
- THOMAS E. JEFFREY (1952), *Assistant Professor of Psychology*
B.S., 1934, Ph.D., 1957 (Chicago)

- WILLIAM SUMNER JENKINS (1930), *Professor of Political Science and Director of the Bureau of Public Records Collection and Research*
A.B., 1924, A.M., 1925, Ph.D., 1927, LL.B., 1931 (North Carolina); M.A. in Military Government, 1943 (Columbia)
- CHARLES EDWIN JENNER (1950), *Associate Professor of Zoology*
A.B., 1941 (Central College); A.M., 1949, Ph.D., 1951 (Harvard)
- LUCIE JESSNER (1955), *Professor of Psychiatry*
Ph.D., 1920 (University of Frankfurt, Germany); M.D., 1926 (University of Koenigsberg, Germany)
- KATHARINE JOCHER (1924), *Professor of Sociology and Associate Director of the Institute for Research in Social Science*
A.B., 1922 (Goucher College); A.M., 1923 (Pennsylvania); Ph.D., 1929 (North Carolina)
- DELL BUSH JOHANNESSEN (1957), *Assistant Professor of Economics*
B.S., 1943, M.S., 1951, Ph.D., 1956 (North Carolina)
- CECIL LAWRENCE JOHNSON (1958), *Instructor in Medicine*
A.B., 1951, M.D., 1955 (North Carolina)
- CECIL SLATON JOHNSON (1931), *Professor of History and Dean of the General College*
A.B., 1922 (Mississippi College); M.A., 1924 (Virginia); Ph.D., 1932 (Yale)
- GUY BENTON JOHNSON (1924), *Professor of Sociology and Anthropology and Research Professor in the Institute for Research in Social Science*
A.B., 1921 (Baylor); A.M., 1922 (Chicago); Ph.D., 1927 (North Carolina)
- PATSY COLVARD JOHNSON (1956), *Instructor in Nursing*
B.S.N., 1955 (North Carolina); R.N.
- PHILIP MARTYN JOHNSON (1956), *Assistant Professor of Radiology*
A.B., 1948 (Dartmouth); M.D., 1951 (Columbia)
- CHARLES L. JOHNSTON, JR. (1956), *Research Associate in Physiology*
A.B., 1947, M.S., 1949 (North Carolina); M.D., 1953 (Pennsylvania)
- ANNIE LEE JONES (1958), *Assistant Professor of Education*
A.B., 1939, M.A., 1951 (East Carolina College); Ed.D., 1958 (Boston)
- CLAIBORNE STRIBLING JONES (1944), *Professor of Zoology and Associate Dean of the General College*
A.B., 1935 (Hampden-Sydney); M.A., 1940, Ph.D., 1944 (Virginia)
- 22DURWARD S. JONES (1956), *Assistant Director of the Institute of Government*
A.B., 1951, J.D., 1954 (North Carolina)
- EDWARD S. JONES (1958), *Visiting Lecturer in the Department of Psychology and School of Education and Research Associate in the Institute for Research in Social Science*
A.B., 1910 (Oberlin); Ph.D., 1917 (Chicago)
- FLOYD BURTON JONES (1950), *Professor of Mathematics*
B.A., 1932, Ph.D., 1935 (Texas)
- JOSEPH KEMPTON JONES (1952), *Clinical Instructor in Medicine*
A.B., 1944, M.D., 1946 (Duke)
- LYLE VINCENT JONES (1957), *Associate Professor of Psychology, Director of the Psychometric Laboratory*
B.S., 1947, M.S., 1948 (Washington); Ph.D., 1950 (Stanford)
- SAMUEL SHEPARD JONES (1955), *Burton Craige Professor of Political Science*
A.B., 1930 (Georgetown College, Kentucky); M.A., 1931 (Kentucky); Ph.D., 1936 (Oxford)
- SIGURDUR JONSSON (1956), *Associate Professor of Pharmaceutical Chemistry*
B.S. in Phar., 1944 (Philadelphia College of Pharmacy and Science); M.S., 1945 (Wisconsin); Ph.D., 1950 (Delaware)
- ARTHUR MELVILLE JORDAN (1923), *Professor of Educational Psychology*
A.B., 1907 (Randolph-Macon); A.M., 1909 (Trinity College); Ph.D., 1919 (Columbia)
- WELDON HUSKE JORDAN (1957), *Clinical Instructor in Medicine*
B.S., 1944 (North Carolina); M.D., 1947 (Harvard)
- WILLIAM STAFFORD JOYNER (1955), *Clinical Instructor in Medicine*
B.S., 1948 (Davidson); M.D., 1952 (Harvard)

- ²³KAI JURGENSEN (1944), *Associate Professor of Dramatic Art*
A.B., 1937 (Montana); A.M., 1943 (North Carolina)
- JASPER L. JUSTICE (1957), *Technical Sergeant, United States Air Force; Instructor in Air Science*
- GEORGE KACHERGIS (1949), *Associate Professor of Art*
Diploma, 1940, B.F.A., 1946, M.F.A., 1948 (The Art Institute of Chicago)
- MARGARET ELLEN KALP (1947), *Associate Professor of Library Science*
B.A., 1936 (New Jersey College for Women); M.A. in L.S., 1942 (Michigan)
- JERZY FELIKS KARZCZ (1958), *Lecturer in Economics and Research Associate in the Institute for Research in Social Science*
B.A., 1950 (Alliance College); M.A., 1952 (Kent State University); Ph.D., 1958 (Columbia)
- SIDNEY L. KARK (1958), *Professor of Epidemiology*
M.B.B.Ch., 1935, M.D., 1954 (University of Witwatersrand, Johannesburg)
- ROBERT EARL KASKE (1958), *Associate Professor of English*
A.B. 1942 (Xavier); M.A., 1947, Ph.D., 1950 (North Carolina)
- CORNELIUS TIMPSON KAYLOR (1947), *Associate Professor of Anatomy*
A.B., 1931 (Wesleyan); M.S., 1933 (Rutgers); Ph.D., 1936 (Princeton)
- MARTIN H. KEELER (1957), *Instructor in Psychiatry*
B.A., 1949 (New York University); M.D., 1953 (New York Medical College)
- BARBARA SNOW KEGLEY (1958), *Instructor in Nursing*
Diploma in Nursing, 1952 (Providence Hospital, Portland, Oregon); R.N.; B.S.N., 1957 (Virginia)
- ALAN KEITH-LUCAS (1950), *Professor of Social Work*
B.A., 1931, M.A., 1935 (Trinity College, Cambridge); M.Sc. (Soc. Adm.), 1939 (Western Reserve); Ph.D., 1955 (Duke)
- MARY FRANCES KELLAM (1945), *Assistant Professor of Physical Education*
B.S., 1944 (Woman's College, North Carolina); A.M., 1948 (North Carolina)
- JOHN ESTEN KELLER (1943-46; 1950), *Professor of Spanish*
B.A., 1940, M.A., 1942 (Kentucky); Ph.D., 1946 (North Carolina)
- ²⁴MORTON KELLER (1956), *Instructor in Social Science*
B.A., 1950 (Rochester); M.A., 1952, Ph.D., 1956 (Harvard)
- RICHARD STERLING KELLY, JR. (1957), *Clinical Instructor in Pediatrics*
B.S., 1942 (Davidson); M.D., 1945 (Jefferson)
- GILBERT LEROY KELSO (1951), *Associate Professor of Sanitary Science*
B.A., 1929 (Iowa); M.P.H., 1942 (Minnesota)
- ELIZABETH LOUANNA KEMBLE (1950), *Professor of Nursing and Dean of the School of Nursing*
Diploma in Nursing, 1927 (College of Nursing and Health, University of Cincinnati); R.N.; B.S., 1940 (New York University); M.A., 1943, Ed.D., 1948 (Teachers College, Columbia)
- ERNESTINE KENNETTE (1943), *Mathematics and Physics Librarian*
A.B., 1918 (North Carolina); B.L.S., 1933 (Columbia)
- E. B. KENSLE (1956), *Assistant Football Coach*
B.S., 1952 (Maryland)
- ROSEMARY MAY KENT (1951), *Associate Professor of Public Health Education*
A.B., 1933 (Agnes Scott); M.A., 1934 (Emory); M.P.H., 1946, Ph.D., 1949 (North Carolina)
- LOUIS TODD KERMON (1952), *Clinical Instructor in Medicine*
B.S., 1941 (Wake Forest); M.D., 1950 (Jefferson Medical College)
- JOHN ROBERT KERNODLE (1957), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1935 (Elon College); M.D., 1942 (Duke)
- THOMAS CLEVELAND KERNS (1952), *Consultant in Surgery (Ophthalmology)*
A.B., 1907 (North Carolina); M.D., 1911 (Pennsylvania)
- ALBERT WARREN KING (1958), *Lecturer in Social Work*
A.B., 1950, M.S.W., 1956 (North Carolina)
- ARNOLD KIMSEY KING (1925), *Professor of Education and Director of the Summer Session*
A.B., 1925 (North Carolina); A.M., 1927, Ph.D., 1951 (Chicago)

23. Absent on leave 1958-1959.

24. Resigned September 1, 1958.

- JAMES EDWARD KING, JR. (1948), *Professor of History and Social Science*
B.A., 1938 (Richmond); Ph.D., 1947 (Johns Hopkins)
- RICHARD AUSTIN KING (1958), *Instructor in Psychology*
A.B., 1954, M.A., 1955 (Cincinnati)
- JOHN ALVIN KIRKLAND (1958), *Instructor in Obstetrics and Gynecology*
B.S., 1948 (North Carolina); M.D., 1952 (Harvard)
- CHARLES ATKINSON KIRKPATRICK (1946), *Professor of Marketing*
A.B., 1928, A.M., 1929 (Duke); D.C.S., 1933 (New York University)
- DAVID KLEIMAN (1952), *Clinical Instructor in Medicine*
B.S., 1932, M.D., 1935 (Illinois)
- FRANK WYSOR KLINGBERG (1948), *Professor of History*
B.A., 1941, Ph.D., 1948 (U.C.L.A.)
- SAMUEL BRADLEY KNIGHT (1941), *Professor of Chemistry*
B.S., 1934 (Clemson); S.M., 1937, Ph.D., 1938 (North Carolina)
- ERNEST A. KNIPP (1957), *Research Associate in Chemistry*
B.S. in Chem. E., 1950, M.S. in Chem. E., 1952 (Rice)
- DONALD WILSON KNOEPLER (1957), *Assistant Professor of Radio, Television, and Motion Pictures*
B.S., 1953, M.A., 1957 (Iowa)
- KERMIT FREDERICK KNUDTZON (1953), *Professor, Department of Practice Administration and Dental Science*
D.D.S., 1927 (Illinois)
- EHUD KOCH (1957), *Instructor in Psychology in the Departments of Psychiatry and Psychology*
B.A., 1952 (Chicago); B.A., 1953, M.A., 1955, Ph.D., 1958 (North Carolina)
- WILLIAM JULIAN KOCH (1950), *Assistant Professor of Botany*
A.B., 1947, M.A., 1950, Ph.D., 1956 (North Carolina)
- JOHN CHARLES KOUNS (1953), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1937 (Emory)
- CLIFTON HOLLAND KREPS, JR. (1955), *Wachovia Associate Professor of Banking*
B.A., 1941 (William and Mary); M.A., 1942 (North Carolina); Ph.D., 1948 (Duke)
- ROY R. KUEBLER, JR. (1958), *Associate Professor of Biostatistics in the School of Public Health*
A.B., 1933 (Dickinson); M.A., 1947 (Pennsylvania); Ph.D., 1958 (North Carolina)
- JOHN GOTTHOLD KUNSTMANN (1955), *Professor of German*
Cand. rev. min., 1916 (Concordia Theological Seminary); Ph.D., 1938 (Chicago)
- MAURINE BOIE LABARRE (1955), *Instructor in Psychiatric Social Work*
B.S., 1928, M.A., 1932 (Minnesota); M.S., 1934 (Bryn Mawr)
- JOHN E. LACEY (1956), *Instructor in Physical Education*
- ANDREW LACZKO (1957), *Clinical Instructor in Psychiatry*
M.D., 1950 (University of Munich, Germany)
- GEORGE SHERMAN LANE (1937), *Kenan Professor of Germanic and Comparative Linguistics*
B.A., 1926, M.A., 1927 (Iowa); Ph.D., 1930 (Chicago)
- ROBERT DANA LANGDELL (1951), *Assistant Professor of Pathology*
M.D., 1948 (George Washington)
- HAROLD QUENTIN LANGENDERFER (1953), *Associate Professor of Accounting*
B.S., 1949 (Miami University); M.B.A., 1950 (Northwestern); D.B.A., 1954 (Indiana); C.P.A. (State of Indiana)
- CORNELIUS LANSING (1957), *Instructor in Psychiatry*
M.D., 1947 (Harvard)
- JOHN EDGAR LARSH, JR. (1943), *Professor of Parasitology*
A.B., 1939, M.S., 1940 (Illinois); Sc.D., 1943 (Johns Hopkins)
- JOHN WAYNE LASLEY, JR. (1910), *Professor of Pure Mathematics*
A.B., 1910, A.M., 1911 (North Carolina); Ph.D., 1920 (Chicago)
- HENRY ALLEN LATANÉ (1958), *Research Associate in Economics*
B.A., 1928 (Richmond); M.B.A., 1930 (Harvard); Ph.D., 1958 (North Carolina)

- JAMES WALTER LEA (1956), *Clinical Instructor in Medicine*
B.A., 1948, M.D., 1952 (Emory)
- STURGIS ELLENO LEAVITT (1917), *Kenan Professor of Spanish*
A.B., 1908 (Bowdoin); A.M., 1913, Ph.D., 1917 (Harvard); Litt.D. (Bowdoin; Davidson)
- MAURICE WENTWORTH LEE (1956), *Professor and Dean of the School of Business Administration*
B.S., 1933 (Illinois Institute of Technology); Ph.D., 1939 (Chicago)
- HUGH TALMAGE LEFLER (1935), *Kenan Professor of History*
A.B., 1921, A.M., 1922 (Trinity College); Ph.D., 1931 (Pennsylvania)
- HARVEY EUGENE LEHMAN (1948), *Associate Professor of Zoology*
A.B., 1941 (Maryville College); A.M., 1944 (North Carolina); Ph.D., 1948 (Stanford)
- LILLIAN YOUNGS LEHMAN (1958), *Visiting Assistant Professor of Zoology*
A.B., 1949 (Catawba); M.A., 1952, Ph.D., 1955 (North Carolina)
- RONALD FRANKLIN LEHR (1957), *Lieutenant, United States Navy; Assistant Professor of Naval Science*
B.S., 1954 (Colorado)
- RICHARD IVOR LEVIN (1957), *Lecturer in Industrial Management*
B.S. in Ind.E., 1951, M.S. in Ind.E., 1953 (North Carolina State)
- ELOISE RALLINGS LEWIS (1953), *Associate Professor of Nursing (Medical-Surgical Nursing)*
B.S., 1941 (Vanderbilt); M.S.Ed., 1951 (Pennsylvania); R.N.
- HENRY WILKINS LEWIS (1946), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1937 (North Carolina); LL.B., 1940 (Harvard)
- RODDEY M. LIGON, JR. (1951), *Associate Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1948, J.D., 1951 (North Carolina)
- ALBERT LINCX (1954), *Assistant Professor of Psychiatric Social Work*
B.A., 1940 (Chicago); M.S., 1952 (Wisconsin)
- ROY LAWRENCE LINDAHL (1952), *Professor of Pedodontics*
B.S., 1950, D.D.S., 1950 (Southern California); M.S., 1952 (Michigan)
- RUTH EMELIA LINDBERG (1952), *Associate Professor of Nursing (Obstetric Nursing)*
Diploma in Nursing, 1922 (Swedish Covenant, Chicago); R.N.; B.S., 1936 (Northwestern)
M.S.Ed., 1950 (Pennsylvania)
- ROBERT BOYD LINDSAY (1947), *Associate University Physician and Clinical Instructor in Medicine*
B.S., 1936 (Davidson); M.D., 1940 (Jefferson Medical College)
- JOE BURTON LINKER (1918), *Professor of Mathematics*
A.B., 1918, A.M., 1920 (North Carolina); Ph.D., 1924 (Johns Hopkins)
- ROBERT WHITE LINKER (1927), *Professor of Romance Languages*
A.B., 1925, A.M., 1928, Ph.D., 1933 (North Carolina)
- WILLIAM FREDERICK LITTLE (1956), *Assistant Professor of Chemistry*
B.S., 1950 (Lenoir Rhyne); M.A., 1952, Ph.D., 1955 (North Carolina)
- ISAAC THOMAS LITTLETON (1951), *Director, Interlibrary Center, University Library*
A.B., 1943 (North Carolina); M.A., 1950 (Tennessee); M.S. in L.S., 1951 (Illinois)
- WILLIAM DAVIS LOCKE (1958), *Major, United States Air Force; Assistant Professor of Air Science*
B.S., 1940 (High Point College)
- EUGENE WILLIAM LOESER, JR. (1957), *Assistant Professor of Neurological Medicine*
M.D., 1952 (Buffalo)
- CLEMENT SEARL LOGSDON (1947), *Professor of Marketing*
B.S., 1924 (Georgetown); M.A., 1928, Ph.D., 1940 (Ohio State)
- JULIAN L. LOKEY (1955), *Lecturer in Psychiatry*
B.S., 1940 (Davidson); M.D., 1943 (Georgia)
- ARTHUR HILL LONDON (1937), *Clinical Professor of Pediatrics*
B.S., 1925 (North Carolina); M.D., 1927 (Pennsylvania)
- LAWRENCE FOUSHEE LONDON (1952), *Curator, Rare Book Room, University Library*
A.B., 1931, A.M., 1933, Ph.D., 1936 (North Carolina)

- ALLISON DENEALE LONG (1956), *Clinical Instructor in Dental Hygiene*
B.S., 1956 (North Carolina); R.D.H.
- DOROTHY ELIZABETH LONG (1952), *Reference Librarian, Division of Health Affairs*
A.B., 1929 (Woman's College, North Carolina); M.A., 1942 (Wisconsin); B.S. in L.S., 1946 (Illinois)
- EUGENE ROBERT LONG, JR. (1949), *Associate Professor of Psychology*
A.B., 1946, A.M., 1947, Ph.D., 1950 (Virginia)
- IRA C. LONG (1954), *Lecturer in Psychiatry*
B.A., 1914 (Trinity); M.D., 1923 (Maryland)
- WILLIAM LUNSFORD LONG, JR. (1952), *Clinical Assistant Professor of Medicine*
A.B., 1940 (North Carolina); M.D., 1943 (Virginia)
- MARY LOUISE LUCY (1952), *Chief, Circulation Department, University Library*
B.A., 1943 (Eastern Kentucky); B.S. in L.S., 1944 (Peabody); M.S. in L.S., 1953 (Columbia)
- HERBERT ZACHAREUS LUND (1952), *Visiting Professor of Pathology*
A.B., 1928 (Utah); M.D., 1931 (Pennsylvania)
- CECIL RHODES LUPTON (1958), *Instructor in Oral Surgery*
D.D.S., 1954 (North Carolina)
- NORVAL NEIL LUXON (1953), *Professor of Journalism and Dean of the School of Journalism*
B.S., 1923, M.A., 1931 (Ohio State); Ph.D., 1940 (U.C.L.A.)
- JOHN FRANKLIN LYNCH, JR. (1953), *Clinical Instructor in Pediatrics*
A.B., 1940 (North Carolina); M.D., 1944 (Jefferson)
- JAMES WILEY LYNN, JR. (1954), *Clinical Instructor in Pediatrics*
M.D., 1946 (Tulane)
- CLIFFORD PIERSON LYONS (1946), *Professor of English*
A.B., 1925, Lit.D. (Cornell College); Ph.D., 1932 (Johns Hopkins)
- JOHN CORIDEN LYONS (1923), *Professor of Romance Languages*
B.S., 1920, M.A., 1921 (William and Mary); Ph.D., 1927 (North Carolina)
- JEAN C. MCALISTER (1954), *Clinical Instructor in Pediatrics*
B.A., 1921 (Agnes Scott); M.D., 1933 (Pennsylvania)
- HUGH A. MCALLISTER (1953), *Clinical Assistant Professor of Obstetrics and Gynecology*
B.S., 1931 (Davidson); M.D., 1937 (Duke)
- GRACIA SOMERVILLE McCABE (1957), *Instructor in Nursing and Research Assistant*
B.S., 1955, M.S., 1957 (Maryland)
- JOHN LEWIS MCCAIN (1956), *Clinical Instructor in Medicine*
B.A., 1948 (North Carolina); M.D., 1952 (Virginia)
- FREDERICK BAYS MCCALL (1926), *Professor of Law*
A.B., 1915 (North Carolina); LL.B., 1928 (Yale)
- GERALD RALEIGH MACCARTHY (1921), *Professor of Geology and Geophysics*
A.B., 1921 (Cornell); A.M., 1924, Ph.D., 1926 (North Carolina)
- PAULINE WAYNE McCASKILL (1958), *Assistant Professor of Nursing*
Diploma in Nursing, 1937 (Catawba Sanatorium, Virginia); R.N.; B.S., 1954 (Duke)
- WALTER STUART McCLELLAN (1954), *Clinical Lecturer in Physiology*
B.A., 1916 (Colgate); M.D., 1923 (Harvard)
- HAROLD GRIER McCURDY (1948), *Professor of Psychology and Research Professor in the Institute for Research in Social Science*
A.B., 1930, Ph.D., 1938 (Duke)
- DONALD MACDONALD (1957), *Clinical Instructor in Psychiatry*
M.B., Ch.B., 1948 (University of St. Andrews, Scotland)
- RUTH LOWENS MACE (1956), *Research Associate in Public Law and Government*
A.B., 1944 (George Washington); B.S., in L.S., 1945 (Catholic University of America); M.R.P., 1956 (North Carolina)
- WALTER T. MCFALL, JR. (1958), *Instructor in Periodontology and Oral Pathology*
B.S., 1955, D.D.S., 1958 (North Carolina)
- EDWARD GRAFTON MCGAVRAN (1947), *Professor of Epidemiology and Dean of the School of Public Health*
A.B., 1924 (Butler); M.D., 1928 (Harvard Medical School); M.P.H., 1935 (Harvard School of Public Health); Sc.D. (Butler)

- CLARENCE HENRY MCGREGOR (1946), *Burlington Professor of Business Administration*
 B.S., 1925 (Kansas State Teachers College of Emporia); M.B.A., 1930 (Kansas); Ph.D., 1937 (Northwestern)
- FRANK MCGUIRE (1952), *Head Basketball Coach*
 B.S., 1936 (St. John's)
- KENNETH MURCHISON MCINTYRE (1948), *Bureau of Audio-Visual Education, Extension Division*
 B.S., 1940 (Davidson College); M.Ed., 1952 (North Carolina)
- JOHN S. MCKEE, JR. (1954), *Lecturer in Psychiatry*
 B.S., 1927 (North Carolina); M.D., 1929 (Pennsylvania)
- ROBERT LAMBERT MCKEE (1946), *Professor of Chemistry*
 B.S., 1938 (Rice); M.A., 1940, Ph.D., 1943 (Texas)
- WILLIAM JOHN MCKEE (1926), *Professor of Education in Extension Teaching, Emeritus (1956)*
 C.E., 1909 (Cornell); M.A., 1919, Ph.D., 1930 (Columbia)
- OWEN RAY MCKENZIE (1958), *Clinical Assistant Professor of Prosthodontics*
 A.B., 1951 (Elon College); D.D.S., 1957 (North Carolina)
- ERNEST LLOYD MACKIE (1921), *Professor of Mathematics and Dean of Student Awards and Distinctions*
 A.B., 1917 (North Carolina); A.M., 1920 (Harvard); Ph.D., 1927 (Chicago)
- LOREN CAREY MACKINNEY (1930), *Kenan Professor of Medieval History*
 A.B., 1913 (Lawrence College); A.M., 1916 (Wisconsin); Ph.D., 1925 (Chicago)
- LOREN GREENWOOD MACKINNEY (1958), *Assistant Professor of Pediatrics*
 B.S., 1942, M.D., 1945 (Harvard)
- CATHERINE FRANCES MACKINNON (1949), *Associate Professor of Public Health Nutrition*
 A.B., 1924 (Montana State University); M.S., 1936 (Michigan)
- WILLIAM ALBERT MCKNIGHT (1934), *Associate Professor of Spanish*
 B.S., 1932 (Davidson); A.M., 1937, Ph.D., 1951 (North Carolina)
- CHARLOTTE POPE MCLEOD (1950), *Assistant Professor of Experimental Medicine*
 B.S., 1936 (Miami); Sc.D., 1939 (Johns Hopkins)
- JOHN BLOUNT MACLEOD (1945), *Instructor in Social Science*
 LL.B., 1922 (Wake Forest); A.B., 1939, A.M., 1947 (North Carolina)
- MARY MARGARET MCLEOD (1953), *Clinical Instructor in Pediatrics*
 B.S., 1932 (North Carolina); M.D., 1935 (Vanderbilt)
- ELIZABETH LOVELL MCMAHAN (1956), *Associate Professor of Public Health Education*
 B.S., 1943 (Nebraska State Teachers College); M.S.P.H., 1944 (North Carolina)
- JOHN ALEXANDER MCMAHON (1948), *Professor of Public Law and Government and Assistant Director of the Institute of Government*
 A.B., 1942 (Duke); LL.B., 1948 (Harvard)
- DOUGALD MACMILLAN (1919), *Kenan Professor of English*
 A.B., 1918, A.M., 1920, Ph.D., 1925 (North Carolina)
- DESMOND PATRICK MCNELIS (1955), *Clinical Instructor in Psychiatry*
 M.B., B.Ch., B.A., 1946, D.P.M., 1948 (University College, Dublin, Eire)
- JOHN SHERIDAN MAC NERNEY (1952), *Associate Professor of Mathematics*
 B.A., 1948, Ph.D., 1951 (Texas)
- DANIEL ALLAN MACPHERSON (1923), *Professor of Bacteriology*
 Ph.B., 1919, Sc.M., 1920 (Brown); Ph.D., 1929 (Chicago)
- SAMUEL DACE MCPHERSON, JR. (1952), *Clinical Professor of Surgery (Ophthalmology)*
 A.B., 1940 (North Carolina); M.D., 1943 (Johns Hopkins)
- ANN CAROL MANEY (1958), *Instructor in Sociology and Research Associate in the Social Research Section of the Division of Health Affairs and Institute for Research in Social Science*
 B.A., 1953 (Woman's College, North Carolina); M.A., 1955, Ph.D., 1958 (North Carolina)
- GEORGE PHILIP MANIRE (1950), *Associate Professor of Bacteriology*
 B.S., 1940, M.S., 1941 (North Texas State College); Ph.D., 1949 (California)
- ISAAC VAUGHAN MANLY (1954), *Clinical Instructor in Surgery*
 B.S., 1944 (North Carolina); M.D., 1946 (Harvard)

- JAMES HOLLOWELL MANLY, JR. (1954), *Clinical Instructor in Surgery*
B.S., 1944 (North Carolina); M.D., 1946 (Pennsylvania)
- VIRGIL IVOR MANN (1950), *Associate Professor of Geology*
B.A., 1942 (Macalester College); Ph.D., 1950 (Wisconsin)
- WILLIAM ROBERT MANN (1949), *Associate Professor of Mathematics*
A.B., 1941 (Rochester); Ph.D., 1949 (California)
- ISAAC HALL MANNING, JR. (1941), *Clinical Associate Professor of Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Harvard)
- EDWIN CARLYLE MARKHAM (1934), *Smith Professor of Chemistry*
A.B., 1923 (Trinity College); Ph.D., 1927 (Virginia)
- ²⁵BARCLAY MARTIN (1959), *Visiting Assistant Professor of Psychology*
B.S., 1947, Ph.D., 1953 (Stanford)
- BENNY WORTH MARTIN (1958), *Instructor in Oral Surgery*
D.D.S., 1958 (North Carolina)
- DAN ANDERSON MARTIN (1957), *Instructor in Medicine*
B.S., 1949 (North Carolina); M.D., 1952 (Harvard)
- FAYE JENKINS MARTIN (1958), *Instructor in Nutrition*
B.S., 1950 (Woman's College, North Carolina)
- ALBERT VICTOR HUGO MASKET (1948), *Associate Professor of Physics*
B.S., 1935 (New York University); M.S., 1936, Ph.D., 1938 (Virginia)
- WILTON MASON (1949), *Associate Professor of Music*
A.B., 1937, A.M., 1947, Ph.D., 1949 (North Carolina)
- ROSALIE McNEILL MASSENGALE (1957), *Head Cataloguer, Division of Health Affairs Library*
A.B., 1937 (Mount Holyoke); M.A., 1939, B.S. in L.S., 1955 (North Carolina)
- ELTA MAE MAST (1947), *Associate Professor of Public Health Education*
B.Ed., 1942 (Illinois State Normal University); M.S.P.H., 1945 (North Carolina)
- DONALD ROWE MATTHEWS (1957), *Associate Professor of Political Science*
A.B., 1948, M.A., 1951, Ph.D., 1953 (Princeton)
- WILLIAM PARKER MATTHEWS (1957), *Assistant Professor of Education*
B.A., 1949 (Lynchburg College); M.A., 1951, D.Ed., 1953 (Columbia)
- NORMAN W. MATTIS (1947), *Professor of English*
A.B., 1926 (Pittsburgh); M.A., 1929 (Cornell)
- CATHERINE MARIE MAYBURY (1954), *Librarian of the Institute of Government*
A.B., 1947 (West Virginia); M.S. in L.S., 1956 (North Carolina)
- ²⁶WILSON MEADERS (1957), *Instructor in Psychology in Department of Psychiatry*
A.B., 1953 (Southern Methodist); M.A., 1955, Ph.D., 1957 (North Carolina)
- JOAN M. MEILLER (1958), *Instructor in Child Psychiatry*
A.B., 1948 (Mount Holyoke); M.D., 1952 (State University of New York)
- CHARLOTTE DAVIS MERRITT (1957), *Instructor in Medical Technology*
A.B., 1941 (College of Notre Dame)
- EUGEN MERZBACHER (1952), *Associate Professor of Physics*
Licentiate Diploma, 1943 (Istanbul); A.M., 1948, Ph.D., 1950 (Harvard)
- GEORGE W. MEYER (1958), *Instructor in Surgery*
B.A., 1942 (North Carolina); M.D., 1951 (Duke)
- HAROLD DIEDRICH MEYER (1921), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1912, A.M., 1916 (Georgia); LL.D. (Florida Southern College); R.S.D. (Salem College, Salem, W. Va.); L.H.D. (Catawba)
- ROBERT BRYANT MIDGETTE (1957), *Assistant Director of the Institute of Government*
A.B., 1952 (Duke); J.D., 1957 (North Carolina)
- AUGUSTUS TAYLOR MILLER, JR. (1939), *Professor of Physiology*
B.S., 1931, M.S., 1933 (Emory); Ph.D., 1939 (Michigan); M.D., 1953 (Duke)
- EULA HUX MILLER (1956), *Instructor in Nursing*
A.A., 1951 (Louisburg College); Diploma in Nursing, 1954, B.S.N., 1956 (Duke); R.N.

25. Spring semester, 1959.

26. Called into military service, September 18, 1958.

- NORMAN MILLER (1958), *Research Associate Professor of Biostatistics in the School of Public Health*
A.B., 1942 (Pennsylvania State); Ph.D., 1958 (Columbia)
- 27 ROBERT ALFRED MILLER (1955), *Assistant Professor of Library Science*
A.B., 1950, B.S. in L.S., 1953, A.M., 1953 (North Carolina)
- ROBERT MOATS MILLER (1956), *Assistant Professor of History*
B.A., 1947 (Grinnell); M.A., 1949, Ph.D., 1955 (Northwestern)
- CHARLES FREMONT MILNER (1937), *Professor of Education in Extension Teaching and Acting Director of the Extension Division*
A.B., 1933 (Guilford); A.M. in Ed., 1941 (North Carolina)
- CHARLES RUDOLPH MILTON (1957), *Lecturer in Economics*
B.A., 1949 (North Carolina); M.S., 1951 (North Carolina State)
- MONTE GEORGE MISKA (1951), *Professor of Crown and Bridge Prosthodontics*
D.D.S., 1937 (Minnesota)
- DAVID LEE MITCHELL (1956), *Instructor in Anatomy*
D.D.S., 1956 (North Carolina)
- KEITH EUGENE MIXTER (1953), *Music Librarian*
B.M., 1947 (Michigan State); M.A., 1951 (Chicago)
- JACK E. MOHR (1958), *Clinical Instructor in Obstetrics and Gynecology*
A.B., 1949 (North Carolina); M.D., 1953 (Tufts)
- ANN LOUISE MOLLESON (1953), *Assistant Professor of Nutrition*
B.S., 1944 (Tennessee); M.N.Sc., 1952 (Cornell)
- DAVID GEETING MONROE (1947), *Professor of Political Science*
LL.B., 1926 (Baldwin-Wallace College); Ph.B., 1930 (Chicago); Ph.D., 1940 (Northwestern)
- JOHN ROBERT MONTGOMERY, JR. (1957), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
B.S., 1950, J.D., 1953 (North Carolina)
- BARBARA MAYNARD MOORE (1958), *Clinical Instructor in Psychiatry*
A.B., 1949 (Woman's College, North Carolina); M.D., 1954 (North Carolina)
- MARGARET LEE MOORE (1957), *Assistant Professor of Physical Therapy*
B.S., 1942 (Madison); M.S., 1948 (Medical College of Virginia)
- WILLIAM EVERETT MOORE (1958), *Captain, United States Air Force; Assistant Professor of Air Science*
A.B., 1951 (North Carolina)
- LUCIA CAMERON MORGAN (1958), *Assistant Professor of English*
B.A., 1931, M.A., 1937, Ph.D., 1954 (Louisiana State)
- LUCY SHIELDS MORGAN (1942), *Professor of Public Health Education*
A.B., 1922, M.S., 1932 (Tennessee); M.A., 1929 (Columbia); Ph.D., 1938 (Yale)
- WILLIAM GARDNER MORGAN (1937), *Associate University Physician and Clinical Instructor in Medicine*
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania)
- JAMES FRANCIS MORRIS (1957), *Clinical Instructor in Pediatrics*
B.S., 1949 (North Carolina); M.D., 1952 (Louisville)
- WARREN MORRIS (1957), *Instructor in Physical Education*
B.A., 1954, B.S., 1955 (Iowa State Teachers College)
- JOSEPH L. MORRISON (1946), *Associate Professor of Journalism*
A.B., 1940 (North Carolina); A.M., 1958 (Columbia)
- JOHN CHARLES MORROW, III (1949), *Associate Professor of Chemistry*
S.B., 1944 (North Carolina); Ph.D., 1949 (Massachusetts Institute of Technology)
- OLIN TERRELL MOUZON (1936), *Professor of Economics*
B.S. in Commerce, 1933 (Southern Methodist); Ph.D., 1940 (North Carolina)
- CLYDE EDWARD MULLIS (1940), *Associate Professor of Physical Education*
A.B., 1938, A.M., 1940 (North Carolina)
- 28 JAMES WILSON MURDOCH (1954), *Lecturer in Psychiatry*
M.B., Ch.B., 1924 (Aberdeen, Scotland)

27. Absent on leave, 1958-1959.

28. Died September 16, 1958.

- ROBERT JENNINGS MURPHY (1952), *Clinical Instructor in Pediatrics*
B.S., 1936 (Teachers College, Tennessee); M.D., 1940 (Vanderbilt)
- RICHARD L. MURLAND (1957), *Instructor in Surgery*
A.B., 1946 (Washington and Jefferson); M.D., 1950 (Jefferson)
- ARNOLD SAMUEL NASH (1947), *Professor of the History and Sociology of Religion*
B.Sc., 1928, M.Sc., 1930, M.A., 1933 (Liverpool); M.Sc.Econ., 1937 (London); D.D., 1946 (Coe College)
- PETER HUGH NASH (1957), *Associate Professor of Planning and Research Associate in the Institute for Research in Social Science*
B.A., 1942, M.A., 1946 (U.C.L.A.); Cert. d'Et, 1946 (University of Grenoble, France); M.C.P., 1949, M.P.A., 1956, Ph.D., 1958 (Harvard)
- MAURICE ALEXANDER NATANSON (1957), *Associate Professor of Philosophy*
A.B., 1945 (Lincoln Memorial); M.A., 1948 (New York); Ph.D., 1950 (Nebraska); D.S.Sc., 1953 (New School for Social Research)
- ROBERT MELLINGER NELSON (1953), *Associate Professor of Orthodontics*
B.S., 1940, D.D.S., 1950, M.S., 1951 (Iowa)
- KENNETH NESS (1941), *Resident Artist and Professor of Art*
Diploma, 1932 (The Art Institute of Chicago)
- WILLIAM S. NEWMAN (1945), *Professor of Music*
B.S., 1933, M.A., 1935, Ph.D., 1939 (Western Reserve)
- JAMES FREDERICK NEWSOME (1956), *Instructor in Surgery*
A.B., 1944 (North Carolina); M.D., 1949 (Vanderbilt)
- GEORGE EDWARD NICHOLSON, JR. (1948), *Professor of Statistics and Research Professor in the Institute for Research in Social Science*
A.B., 1940, A.M., 1941, Ph.D., 1948 (North Carolina)
- EDWARD WILLIAM NOLAND (1949), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1930, A.M., 1936 (West Virginia); Ph.D., 1944 (Cornell)
- JANE SNYDER NORRIS (1957), *Instructor in Nursing*
B.S.N., 1956 (North Carolina)
- JOHN WILLIAM ROY NORTON (1938-40; 1948), *Visiting Associate Professor of Public Health*
A.B., 1920 (Duke); M.D., 1928 (Vanderbilt); M.P.H., 1936 (Harvard School of Public Health)
- LAWRENCE CLYDE NORTON (1956), *Major, United States Marine Corps; Assistant Professor of Naval Science*
B.S., 1943 (Alabama Polytechnic Institute)
- RACHEL LEE NUNLEY (1957), *Instructor in Physical Therapy*
B.A., 1946 (Marshall); M.A., 1955 (Duke)
- ELMER ROSENTHAL OETTINGER, JR. (1957), *Lecturer in Radio, Television, and Motion Pictures*
B.A., 1934, LL.B., 1939, M.A., 1952 (North Carolina)
- JUNJIRO OGAWA (1958), *Visiting Associate Professor of Biostatistics in the School of Public Health*
M.A., 1937, Ph.D., 1954 (Tokyo Imperial University)
- DANIEL ALEXANDER OKUN (1952), *Professor of Sanitary Engineering*
B.S.C.E., 1937 (Cooper Union Institute of Technology); M.S., 1938 (California Institute of Technology); Sc.D., 1948 (Harvard)
- MARY WILHELMINA OLIVER (1952), *Assistant Professor of Law and Law Librarian*
A.B., 1940 (Western Maryland College); B.S. in L.S., 1943 (Drexel Institute of Technology); LL.B., 1951 (North Carolina)
- OTTO HAROLD OLSEN (1958), *Instructor in Social Science*
B.A., 1957 (Columbia College, New York)
- WILLIAM ANDERSON OLSEN (1923), *Professor of English*
A.B., 1923 (Cornell); A.M., 1928 (North Carolina)
- JERROLD ORNE (1957), *University Librarian and Chairman of the Library Division*
B.A., 1932, M.A., 1933 (Minnesota); Cert. (University of Paris, Sorbonne); Ph.D., 1939 (Chicago); B.S. in L.S., 1940 (Minnesota)
- EVERETT D. PALMATIER (1949), *Professor of Physics*
B.Sc., 1938 (Manitoba); Ph.D., 1951 (Cornell)

- JEFFRESS GARY PALMER (1952), *Associate Professor of Medicine*
B.S., 1942, M.D., 1944 (Emory)
- LEONARD PALUMBO, JR. (1952), *Associate Professor of Obstetrics and Gynecology*
M.D., 1944 (Duke)
- FRANCES CHERRY C. PARKER (1957), *Instructor in Nursing*
Diploma in Nursing, 1941 (St. Thomas School of Nursing, Nashville); R.N.; B.S.P.H.N., 1957 (North Carolina)
- JOHN ALBERT PARKER (1946), *Professor of Planning and Research Professor in the Institute for Research in Social Science*
S.B., 1931, M.Arch., 1933, M.C.P., 1946 (Massachusetts Institute of Technology)
- JOHN WILLIAM PARKER (1934), *Professor of Dramatic Art*
A.B. in Educ., 1930, A.M., 1935 (North Carolina)
- MABEL MARIE PARKER (1958), *Instructor in Physical Therapy*
B.S., 1939 (Western Michigan); M.A., 1940 (Michigan)
- SAMUEL L. PARKER, JR. (1956), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1938 (North Carolina); M.D., 1942 (George Washington)
- ²⁹WILLIAM NELSON PARKER (1956), *Associate Professor of Economics and Research Associate in the Institute for Research in Social Science*
B.A., 1939, M.A., 1941, Ph.D., 1951 (Harvard)
- RALPH C. PATRICK, JR. (1958), *Associate Professor of Epidemiology*
A.B., 1946 (North Carolina); A.M., 1952, Ph.D., 1954 (Harvard)
- CARL NORRIS PATTERSON (1953), *Clinical Consultant in Surgery (Otolaryngology)*
B.S., 1941 (Franklin Marshall); M.D., 1944 (Maryland)
- DANIEL WATKINS PATTERSON (1957), *Instructor in English*
A.B., 1949 (Duke); M.A., 1955 (North Carolina)
- FRED GEER PATTERSON (1941), *Clinical Instructor in Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Pennsylvania)
- HUBERT CLIFTON PATTERSON, JR. (1950), *Assistant Professor of Surgery*
A.B., 1936 (Duke); M.D., 1937 (Harvard)
- THOMAS MCEVOY PATTERSON (1950), *Associate Professor of Dramatic Art*
A.B., 1934, A.M., 1936 (Texas)
- FRANCES GRAY PATTON (1956), *Lecturer in English*
Litt.D., 1950 (Woman's College, North Carolina)
- JAMES WELCH PATTON (1948), *Professor of History, Chief, Manuscripts Department, and Director of the Southern Historical Collection, University Library*
A.B., 1924 (Vanderbilt); A.M., 1925, Ph.D., 1929 (North Carolina)
- ERLE EWART PEACOCK (1920), *Professor of Accounting*
A.B., 1914 (Georgia); M.B.A. 1916 (Harvard); C.P.A. (State of North Carolina)
- ERLE EWART PEACOCK, JR. (1956), *Assistant Professor of Surgery*
M.D., 1949 (Harvard)
- WILLIAM HENRY PEACOCK (1946), *Professor of Physical Education*
A.B., 1932 (Maryville College); A.M., 1940, Ph.D., 1945 (North Carolina)
- RICHARD LEHMER PEARSE (1940), *Clinical Assistant Professor of Obstetrics and Gynecology*
M.D., 1931 (Harvard)
- CARL HAMILTON PEGG (1930), *Professor of History*
A.B., in Educ., 1927, A.M., 1927, Ph.D., 1930 (North Carolina)
- GEORGE DIAL PENICK (1949), *Associate Professor of Pathology*
S.B., 1944 (North Carolina); M.D., 1946 (Harvard)
- RALPH PENNIALL (1958), *Assistant Professor of Biochemistry and Nutrition*
B.A., 1947 (Knox College); M.S., 1950, Ph.D., 1953 (Iowa)
- JOSEPH H. PERLMUTT (1953), *Associate Professor of Physiology*
B.S., 1939 (College of Charleston); A.M., 1942 (North Carolina); Ph.D., 1949 (Princeton)
- ARNOLD PERRY (1948), *Professor of Education and Dean of the School of Education*
A.B., 1926, Ed.M., 1933 (Duke); Ed.D., 1943 (Columbia)
- SOLOMON PAUL PERRY (1954), *Clinical Associate Professor of Radiology*
A.B., 1921 (Davis and Elkins College); M. D., 1926 (Chicago)

²⁹. Absent on leave, 1958-1959.

- WILLIAM DECATUR PERRY (1937), *Professor of Education, Director of the University Testing Service*
A.B. in Educ., 1929 (North Carolina); M.A., 1934 (Columbia); Ed.D., 1937 (Teachers College, Columbia)
- ANN DEHUFF PETERS (1953), *Assistant Professor of Pediatrics*
B.A., 1936 (New Mexico); B.S., 1937, M.S.S.W., 1938 (Simmons College); M.D., 1946 (Washington University)
- RICHARD MORSE PETERS (1952), *Associate Professor of Surgery*
B.S., 1943, M.D., 1945 (Yale)
- BILLY JAMES PETTIS (1957), *Professor of Mathematics*
B.A., 1932 (Wofford College); M.A., 1933 (North Carolina); Ph.D., 1937 (Virginia)
- RALPH WILLIAM PFOUTS (1949), *Professor of Economics and Research Professor in the Institute for Research in Social Science*
A.B., 1942, A.M., 1947 (Kansas); Ph.D., 1952 (North Carolina)
- PETER GEORGE PHIALAS (1953), *Assistant Professor of English*
B.A., 1938 (Northeast Missouri State Teachers College); M.A., 1939 (Missouri); Ph.D., 1948 (Yale)
- ³⁰CLARENCE EDWARD PHILBROOK (1947), *Professor of Economics*
A.B., 1936, Ph.D., 1949 (Chicago)
- ³¹BERNARD S. PHILLIPS (1956), *Research Assistant Professor of Biostatistics in School of Public Health and Institute for Research in Social Science*
B.A., 1952 (Columbia); M.A., 1953 (State College of Washington); Ph.D., 1956 (Cornell)
- CHARLES A. SPEAS PHILLIPS (1957), *Clinical Assistant Professor of Anatomy*
B.S., 1942 (North Carolina); B.M., 1945, M.D., 1946 (Northwestern)
- GUY BERRYMAN PHILLIPS (1936), *Professor of Education*
A.B., 1913 (North Carolina); M.A., 1942 (Columbia); D.Litt. (High Point College)
- CLAUDE PIANTADOSI (1957), *Assistant Professor of Pharmaceutical Chemistry*
B.S., 1949 (Brooklyn College of Pharmacy, Long Island); M.S., 1952 (Columbia); Ph.D., 1956 (North Carolina)
- ANNIE PICKARD (1952), *Circulation Librarian, Division of Health Affairs*
A.B.L.S., 1931 (Emory)
- WILLIAM WHATLEY PIERSON (1915), *Dean of the Graduate School, Emeritus (1957), University Professor of History and Political Science*
A.B., 1910, A.M., 1911 (Alabama); M.A., 1912, Ph.D., 1916 (Columbia); Litt.D. (Boston); LL.D. (Washington and Lee)
- JOHN SANDERS PIKE (1957), *Associate Professor of Pedodontics*
A.B., 1948, D.D.S., 1953 (Emory); M.S., 1957 (Nebraska)
- EDWARD LEE PINNEY (1958), *Instructor in Social Science*
B.S., 1952 (Alabama Polytechnic Institute); M.A., 1956 (North Carolina)
- FELIX A. E. PIRANI (1958), *Lecturer and Research Associate in Physics*
B.Sc., 1948 (Western Ontario); M.A., 1949 (Toronto); D.Sc., 1951 (Carnegie Institute of Technology); Ph.D., 1956 (Cambridge)
- IRENE PATRICIA PITONAK (1958), *Instructor in Nursing*
Diploma in Nursing, 1947 (Jersey City School of Nursing); R.N.; B.S., 1955 (Seton Hall); M.A., 1958 (New York)
- MORTON ELI PIZER (1955), *Clinical Instructor in Pediatrics*
M.D., 1947 (Louisville)
- KENNETH ARTHUR PODGER (1955), *Clinical Assistant Professor of Obstetrics and Gynecology*
A.B., 1937, M.D., 1941 (Duke)
- DANIEL H. POLLITT (1957), *Associate Professor of Law*
A.B., 1943 (Wesleyan); LL.B., 1949 (Cornell)
- WILLIAM SPROTT POLLITZER (1957), *Instructor in Anatomy*
A.B., 1944, M.A., 1947 (Emory); Ph.D., 1957 (Columbia)
- HUGH J. PORTER (1955), *Instructor in the Institute of Fisheries Research*
B.S., 1950 (Millersville Teachers College); M.Sc., 1956 (Delaware)
- JOSEPH PORTNOY (1954), *Assistant Professor of Experimental Medicine*
B.S., 1936 (College of the City of New York); M.S., 1937 (New York University); Ph.D., 1954 (Columbia)

30. Absent on leave, 1958-1959.

31. Resigned September 1, 1958.

- GERALD S. POSNER (1955), *Assistant Professor in the Institute of Fisheries Research*
B.S., 1949 (College of the City of New York); M.S., 1951 (Miami University); Ph.D., 1956 (Yale)
- JAMES POTTER (1958), *Acting Associate Professor of Economics*
B.A., 1947, M.A. in Econ., 1949 (Manchester)
- WILLIAM CARLYLE POWELL (1957), *Clinical Instructor in Pediatrics*
A.B., 1948 (North Carolina); M.D., 1952 (Bowman Gray)
- WILLIAM STEVENS POWELL (1951), *Chief, North Carolina Collection, University Library*
B.A., 1940, M.A., 1947, B.S. in L.S., 1947 (North Carolina)
- ARTHUR JERGEN PRANGE, JR. (1957), *Instructor in Psychiatry*
B.S., 1947, M.D., 1950 (Michigan)
- CARLETON ESTEY PRESTON (1927), *Professor of Education, Emeritus (1945)*
A.B., 1899, A.M., 1900, Ph.D., 1902 (Harvard)
- PADDISON W. PRESTON (1956), *Assistant Football Coach*
A.B., 1948 (Wake Forest)
- DANIEL O'HAYER PRICE (1947), *Professor of Sociology and Director of the Institute for Research in Social Science*
B.S., 1939 (Florida Southern); A.M., 1942, Ph.D., 1948 (North Carolina)
- RUTH I. PRICE (1949), *Assistant Professor of Physical Education*
B.S., 1926 (Columbia); M.S., 1936 (Southern California)
- NEWTON GEORGE PRITCHETT (1953), *Clinical Instructor in Medicine*
M.D., C.M., 1943 (Dalhousie, Canada)
- ARDELL MAE PROCTOR (1957), *Instructor in Medical Technology (Bacteriology)*
B.S., 1945, M.S., 1950 (Minnesota)
- JAMES THORNTON PROCTOR (1954), *Assistant Professor of Psychiatry*
A.B., 1943, M.D., 1946 (Kansas)
- ³²WILLIAM RUSSELL PULLEN (1951), *Associate Professor of Political Science and Assistant Librarian for Technical Processes*
A.B., 1942, S.B. in L.S., 1947, A.M., 1948, Ph.D., 1951 (North Carolina)
- WALTER WAGNER RABB (1946), *Associate Professor of Physical Education and Head Baseball Coach*
B.S., 1937 (North Carolina State); A.M. in Educ., 1941 (North Carolina)
- GORDON ELLIS RADER (1957), *Assistant Professor of Psychology in Departments of Psychiatry and Psychology*
B.S., 1950 (Washington); M.S., 1952, Ph.D., 1956 (Yale)
- ALBERT ERNEST RADFORD (1946), *Associate Professor of Botany*
B.S., 1939 (Furman); Ph.D., 1948 (North Carolina)
- IRENE SMART RAINS (1940), *Lecturer in Dramatic Art and Costume Director of The Carolina Playmakers*
- MARY WALKER RANDOLPH (1956), *Professor of Nursing*
Diploma in Nursing, 1924 (Los Angeles County General Hospital); R.N.; B.S., 1932 (Virginia); M.A., 1940 (Teachers College, Columbia)
- REBECCA GRIER RANDOLPH (1953), *Director of Social Service, North Carolina Memorial Hospital*
A.B., 1933 (Woman's College, North Carolina); M.S.S., 1936 (William and Mary); M.S.W., 1943 (Pennsylvania)
- RICHARD BEVERLY RANEY (1944), *Professor of Surgery (Orthopaedics)*
A.B., 1926 (North Carolina); M.D., 1930 (Harvard)
- EDGAR RALPH RANKIN (1913), *Bureau of School Relations, Extension Division*
A.B., 1913, A.M., 1914 (North Carolina)
- MURPHEY DALE RANSON (1925), *Instructor in Physical Education*
S.B.Comm., 1924 (North Carolina)
- EDWIN ALBERT RASBERRY, JR. (1954), *Clinical Assistant Professor of Medicine*
A.B., 1937 (North Carolina); M.D., 1941 (Pennsylvania)
- SAMUEL FITSIMONS RAVENEL (1954), *Clinical Professor of Pediatrics*
A.B., 1918 (North Carolina); M.D., 1923 (Johns Hopkins)

- CHARLES AUGUSTUS REAP (1958), *Instructor in Prosthodontics*
D.D.S., 1958 (North Carolina)
- CLYNE E. RECTOR (1956), *Staff Sergeant, United States Air Force; Instructor in Air Science*
- 33NORMAN OLIVER REESE (1958), *Instructor in Surgery (Anesthesiology)*
B.S., 1948 (Western Reserve); M.D., 1952 (Rochester)
- MARGARET E. REESOR (1958), *Instructor in Classics*
B.A., 1945 (Victoria College, Toronto); M.A., 1946 (Toronto); Ph.D., 1951 (Bryn Mawr College)
- JESSIE REHDER (1947), *Lecturer in English*
A.B., 1929 (Randolph-Macon); M.A., 1931 (Columbia)
- 34HERBERT WILLIAM REICHERT (1947), *Associate Professor of German*
B.A., 1938, M.A., 1940 (Columbia); Ph.D., 1942 (Illinois)
- CHARLES NORWOOD REILLEY (1952), *Associate Professor of Chemistry*
B.S., in Chem., 1947 (North Carolina); Ph.D., 1952 (Princeton)
- ISAAC NEWTON REYNOLDS (1949), *Assistant Professor of Accounting*
B.S., 1948 (East Carolina College); S.M., 1951, Ph.D., 1957 (North Carolina)
- TOM REZZUTO, JR. (1956), *Instructor in Dramatic Art and Technical Director of The Carolina Playmakers*
A.B., 1952, M.A., 1954 (North Carolina)
- JACQUELINE LEARDI RHAME (1958), *Instructor in Nursing*
Diploma in Nursing, 1955 (New Hampshire State Hospital); R.N.; B.S.N.Ed., 1958 (Duke)
- DWIGHT CARROLL RHYNE (1951), *Associate Director of the Extension Division and Instructor in Political Science in Extension Teaching*
A.B., 1949, A.M., 1950 (North Carolina)
- OSCAR KNEFLER RICE (1936), *Professor of Chemistry*
B.S., 1924, Ph.D., 1926 (California)
- RICHARD EDGEWORTH RICHARDSON (1952), *Associate Professor of Oral Diagnosis and Treatment Planning*
D.D.S., 1937 (Maryland)
- WILLIAM PERRY RICHARDSON (1936), *Professor of Preventive Medicine and Assistant Dean in Charge of Continuation Education; Research Professor of Public Health Administration*
A.B., 1926 (Wake Forest); M.D., 1928 (Medical College of Virginia); M.P.H., 1933 (Johns Hopkins)
- LYMAN ALONZO RIPPERTON (1958), *Assistant Professor of Sanitary Engineering*
B.A., 1942, B.S., 1946, Ph.D., 1953 (Texas)
- WILSON CRUNK RIPPY, JR. (1958), *Clinical Instructor in Child Psychiatry*
B.S., 1949, M.D., 1952 (Emory)
- LOUIS C. ROBERTS (1953), *Clinical Instructor in Surgery*
B.S., 1930 (Davidson); M.D., 1934 (Duke)
- 35CHARLES BASKERVILL ROBSON (1925), *Professor of Political Science*
A.B., 1919 (Davidson); A.M., 1924 (Princeton); Ph.D., 1930 (North Carolina)
- NATHANIEL FULFORD RODMAN, JR. (1958), *Instructor in Pathology*
A.B., 1947 (Princeton); M.D., 1951 (Pennsylvania)
- ARTHUR ROE (1941), *Kenan Professor of Chemistry*
B.A., 1933 (Oberlin); M.A., 1935 (Colorado College); Ph.D., 1938 (Northwestern)
- JAMES FRANKLIN ROGERS (1958), *Visiting Lecturer in Education*
B.S., 1947, M.A., 1947 (Sul Rose State, Texas); Ph.D., 1952 (Texas)
- MICHAEL Z. RONMAN (1936), *Instructor in Physical Education*
B.S., 1935, Ed.M., 1938 (Pennsylvania State)
- 36WILLIAM EVERETT ROSENSTENGEL (1941), *Professor of Education*
B.S. in Ed., 1923 (Northeast Missouri State Teachers College); A.M., 1927, Ph.D., 1931 (Missouri)

33. Resigned September 30, 1958.

34. Absent on leave, fall, 1958, as Kenan Professor for the Term of One Semester; Absent on leave, spring semester, 1959.

35. Absent on leave, 1958-1959.

36. Died April 23, 1958.

- ROBERT ALEXANDER ROSS (1934), *Professor of Obstetrics and Gynecology*
S.B., 1920 (North Carolina); M.D., 1922 (Pennsylvania)
- SAMARENDRA NATH ROY (1950), *Professor of Statistics*
B.Sc., 1928, M.Sc., 1931 (Calcutta)
- CHAUNCEY LAKE ROYSTER (1952), *Clinical Associate Professor of Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Cornell)
- THOMAS SAMPSON ROYSTER, JR. (1953), *Clinical Instructor in Surgery*
A.B., 1940 (North Carolina); M.D., 1943 (Pennsylvania)
- MAURICE HARVEY RUBIN (1955), *Clinical Instructor in Surgery (Ophthalmology)*
M.D., 1948 (Long Island College of Medicine)
- ROBERT ARTHUR RUPEN (1958), *Associate Professor of Political Science and Research Associate in the Institute for Research in Social Science*
A.B., 1948 (Williams); M.A., 1949 (Fletcher School of Law and Diplomacy); Ph.D., 1954 (Washington)
- CHARLES PHILLIPS RUSSELL (1931), *Professor of Journalism, Emeritus (1956)*
A.B., 1904 (North Carolina)
- HARRY KITSUN RUSSELL (1929), *Professor of English*
A.B., 1923 (Davidson); A.M., 1928, Ph.D., 1931 (North Carolina)
- FRANK WINKLER RYAN, JR. (1957), *Assistant Professor of Social Science*
B.S., 1940 (College of Charleston); M.A., 1947, Ph.D., 1956 (North Carolina)
- WILL CARSON RYAN (1940), *Kenan Professor of Education, Emeritus (1956)*
A.B., 1907 (Harvard); Ph.D., Ed.D., 1918, LL.D. (George Washington)
- FAWZY SHUKRY SADEK (1957), *Research Associate in Chemistry*
B.S., 1951 (Cairo University, Egypt); Ph.D., 1953 (Graz University, Austria)
- ALTON GUY SADLER (1946), *Lecturer in Accounting*
A.B., 1930 (Duke); M.S., 1937 (North Carolina); C.P.A. (State of Georgia)
- ROBERT HENRY SAGER (1954), *Associate Professor of Periodontology and Oral Pathology*
D.D.S., 1949 (Northwestern)
- JOHN LASSITER SANDERS (1956), *Assistant Professor of Public Law and Government and Assistant Director of the Institute of Government*
A.B., 1950, J.D., 1954 (North Carolina)
- WILEY BRITTON SANDERS (1923), *Professor of Sociology*
A.B., 1919, A.M., 1920 (Emory); A.M., 1921 (North Carolina); Ph.D., 1929 (Chicago)
- MYRON GUY SANDIFER, JR. (1955), *Assistant Professor of Psychiatry*
B.S., 1943 (Davidson); M.D., 1947 (Harvard)
- AHMED EBADA SARHAN (1955), *Research Associate Professor of Biostatistics in the Institute of Statistics and the School of Public Health*
B.Sc., 1943 (Cairo); M.Sc., 1952 (Liverpool); M.S.Hy., 1953 (Harvard); Ph.D., 1955 (North Carolina)
- JASON LEWIS SAUNDERS (1954), *Associate Professor of Philosophy*
A.B., 1947 (Tufts); A.M., 1949, Ph.D., 1952 (Columbia)
- LOIS CUMMINGS SAUTE (1958), *Instructor in Psychology in Departments of Psychiatry and Psychology*
B.A., 1953, M.A., 1954 (Mississippi)
- HERMAN MAX SCHIEBEL (1942), *Clinical Assistant Professor of Surgery*
A.B., 1929, M.D., 1933 (Johns Hopkins)
- ³⁷JAN PHILIP SCHINHAN (1935), *Professor of Music, Emeritus (1958)*
A.B., 1931, M.A., 1933 (California); Ph.D., 1937 (Vienna)
- RUDOLPH W. SCHMID (1956), *Research Associate in Chemistry*
Dr. Sc. Techn., 1955 (Swiss Federal Institute of Technology, Zurich)
- JAMES BART SCHOLDS (1958), *Instructor in English*
A.B. 1942 (Middlebury); M.A., 1948 (Kansas)
- JOHN SCHOPLER (1957), *Instructor of Psychology in Departments of Psychiatry and Psychology*
B.A., 1952 (Rochester); M.A., 1953 (New Mexico); Ph.D., 1958 (Colorado)
- JOHN HARRIS SCHWAB (1953), *Assistant Professor of Bacteriology*
B.A., 1949, M.S., 1950, Ph.D., 1953 (Minnesota)

- GUSTAV THEODOR SCHWENNING (1926), *Professor of Business Administration*
B.H., 1920 (Springfield); M.A., 1921, Ph.D., 1925 (Clark)
- FRANK J. SCHWENTKER (1954), *Julian Price Lecturer in Life Insurance*
A.B., 1928 (Harvard); C.L.U., 1938 (American College of Life Underwriters); C.P.C.U.
1956 (American Institute of Property and Liability Underwriters)
- ANDREW MACKAY SCOTT (1958), *Acting Associate Professor of Political Science*
B.A., 1946 (Dartmouth); M.A., M.P.A., 1949, Ph.D., 1950 (Harvard)
- ANNIE VELLNA SCOTT (1954), *Clinical Professor of Pediatrics*
B.S., 1914 (Woman's College, North Carolina); M.D., 1918 (Woman's Medical College
of Pennsylvania)
- LUDWIG GASTON SCOTT (1958), *Clinical Assistant Professor of Crown and Bridge
Prosthodontics*
A.B., 1949, D.D.S., 1954 (North Carolina)
- ROBERT NEILL SCOTT (1957), *Assistant Professor of Education*
B.S., 1948 (Western Carolina College); M.A., 1950 (George Peabody College for Teachers);
Ed.D., 1956 (Tennessee)
- ROSS E. SCROGGS, JR. (1949), *Associate Director, Communication Center; Assistant
Professor of Physics; Assistant Professor of Radio, Television, and Motion
Pictures*
B.S., 1942 (North Carolina)
- STUART WILSON SECHRIST (1946), *Associate Professor of Journalism and Adviser
in the General College*
A.B., 1935 (North Carolina)
- 38SAMUEL SELDEN (1927), *Professor of Dramatic Art and Director of The Carolina
Playmakers*
A.B., 1922 (Yale); Litt.D. (Illinois College)
- 39KARL LUDWIG SELIG (1958), *Associate Professor of Spanish*
A.B., 1946, M.A., (Ohio State); Ph.D., 1954 (Texas)
- FRED THEODOR SEMENIUK (1947), *Professor of Pharmaceutical Chemistry*
B.Sc., 1939 (Alberta); Ph.D., 1947 (Purdue)
- WILLIAM JEFFRESS SENTER (1952), *Clinical Instructor in Medicine*
B.S., 1938 (Wake Forest); M.D., 1942 (Maryland)
- JOHN TURNER SESSIONS, JR. (1952), *Associate Professor of Medicine*
B.S., 1943, M.D., 1945 (Emory)
- HANSON DOUGLAS SESSOMS (1954), *Instructor in Sociology*
A.B., 1953 (North Carolina); M.S., 1954 (Illinois)
- 40HARLEY CECIL SHANDS (1953), *Associate Professor of Psychiatry*
B.S., 1936, M.D., 1939 (Tulane); M.S. (Med.), 1945 (Minnesota)
- ROBERT JACK SHANKLE (1951), *Associate Professor of Operative Dentistry*
D.D.S., 1948 (Emory)
- ROYAL G. SHANNONHOUSE (1955), *Assistant Professor of Public Law and Government
and Assistant Director of the Institute of Government*
A.B., 1950, J.D., 1955 (North Carolina)
- DAVID GORDON SHARP (1957), *Professor of Biophysics*
B.S., 1932 (Rutgers); M.A., 1937, Ph.D., 1939 (Duke)
- LAWRENCE ALBRIGHT SHARPE (1946), *Assistant Professor of Spanish and Portuguese*
A.B., 1940, Ph.D., 1956 (North Carolina)
- ROBERT BOIES SHARPE (1931), *Professor of English*
A.B., 1918 (Wesleyan); M.A., 1923 (Wisconsin); Ph.D., 1928 (Yale)
- PAUL EDMONDSON SHEARIN (1936), *Professor of Physics*
A.B., in Educ., 1929, A.M., 1930 (North Carolina); Ph.D., 1934 (Ohio State)
- FREDERICK CARLYLE SHEPARD (1946), *Adviser to Veterans and Associate Dean of the
General College*
A.B., 1921, A.M., 1926, Ph.D., 1938 (North Carolina)
- GEORGE EDWARD SHEPARD (1929), *Professor of Physical Education and Adviser in
the General College*
S.B., 1929 (North Carolina); M.A., 1940, Ed.D., 1948 (Columbia)

38. Resigned January 26, 1959.

39. Absent on leave, 1958-1959.

40. Absent on leave, September 1, 1958, to, August 31, 1959.

- CLAUDE C. SHOTTS (1947), *General Secretary, Y.M.C.A.*
B.S. in E.E., 1922 (Alabama); B.D., 1925 (Yale)
- SHARAD-CHANDRA SHANKAR SHRIKHANDE (1958), *Visiting Associate Professor of Statistics*
B.Sc. (Hons.) 1939 (Nagpur); Ph.D., 1950 (North Carolina)
- EMIR HAMVASY SHUFORD, JR. (1957), *Assistant Professor of Psychology*
B.A., 1951, M.A., 1953 (Arkansas); A.M., 1955, Ph.D., 1955 (Illinois)
- WALTER ALLEN SIKES (1954), *Clinical Assistant Professor of Psychiatry*
B.S., 1945 (Georgia); M.D., 1946 (Medical College of Georgia)
- JOHN LEWIS SIMMONS (1957), *Instructor in Surgery*
M.D., 1951 (Washington)
- GEORGE L. SIMPSON, JR. (1950), *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1941, A.M., 1944, Ph.D., 1951 (North Carolina)
- RICHARD LEE SIMPSON (1958), *Assistant Professor of Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1950 (North Carolina); M.A., 1952 (Cornell); Ph.D., 1956 (North Carolina)
- WILLIAM VANCE SINGLETARY (1952), *Clinical Instructor in Medicine*
A.B., 1940 (North Carolina); M.D., 1943 (Duke)
- JOSEPH CARLYLE SITTESON (1935), *Professor of History and Dean of the College of Arts and Sciences*
A.B., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)
- DONALD EDMOND SKAKLE, SR. (1958), *Instructor in Physical Education*
A.B., 1950 (North Carolina)
- WILLIAM G. SLATTERY (1957), *Lecturer in Distributive Education*
B.S., 1932 (State Teachers College, Clarion, Pa.); M.S., 1951 (Woman's College, North Carolina)
- LAWRENCE MYER SLIFKIN (1955), *Associate Professor of Physics*
A.B., 1947 (New York University); M.A., 1949, Ph.D., 1950 (Princeton)
- 41 JOSEPH CURTIS SLOANE (1959), *Professor of Art and Director of the Ackland Memorial Art Center*
B.A., 1951, M.F.A., 1954, Ph.D., 1949 (Princeton)
- EARL ANDERSON SLOCUM (1933), *Professor of Music*
B.Mus., 1931, M.M., 1936 (Michigan)
- TROY BUNYON SLUDER, JR. (1955), *Assistant Professor of Operative Dentistry*
D.D.S., 1955 (North Carolina)
- DEAN EDWARDS SMITH (1958), *Instructor in Physical Education*
B.S., 1953 (Kansas)
- EDWARD MARVIN SMITH (1957), *Instructor in Pharmacy Administration*
S.B. in Phar., 1953 (North Carolina)
- HARVEY L. SMITH (1952), *Professor of Sociology in Departments of Sociology and Anthropology and Psychiatry; Research Professor in the Institute for Research in Social Science and Director of the Social Research Section of the Division of Health Affairs*
B.A., 1941, M.A., 1947, Ph.D., 1949 (Chicago)
- JULIA DUPUY SMITH (1954), *Associate Professor of Nursing (Public Health)*
A.B., 1923 (Hollins); Diploma in Nursing, 1928 (Hospital of the University of Pennsylvania); R.N.; M. A., 1937 (Columbia)
- WALTER LAWS SMITH (1954), *Associate Professor of Statistics*
B.A., 1947, M.A., 1951, Ph.D., 1953 (Cambridge)
- CLARENCE LEE SOCKWELL (1952), *Assistant Professor of Operative Dentistry*
D.D.S., 1952 (Emory)
- JAMES EARL SOMERS (1957), *Instructor in Psychiatry*
A.B., 1949 (North Carolina); M.D., 1953 (Duke)
- CLEMENS SOMMER (1939), *Professor of the History of Art*
Ph.D., 1919 (Freiburg)
- ROY ELMER SOMMERFELD (1956), *Associate Professor of Education*
B.S., 1937 (Western Michigan); M.A., 1947, Ph.D., 1952 (Michigan)

- JOHN MITCHELL SORROW (1954), *Assistant Professor of Medicine and Assistant to the Dean of the School of Medicine*
B.S., 1943 (North Carolina); M.D., 1946 (Pennsylvania)
- EVANGELINE ELEANOR SOUTSOS (1953), *Assistant Professor of Nursing (Psychiatric Nursing)*
Diploma in Nursing, 1947 (Boston City Hospital); R.N.; B.S., 1952, M.S., 1953 (Boston)
- 42 JOHN BRIGHT SOWTER (1955), *Assistant Professor of Prosthodontics*
D.D.S., 1952 (Pennsylvania)
- WALTER SPEARMAN (1935), *Professor of Journalism*
A.B., 1929, A.M., 1937 (North Carolina)
- CHARLES RAYMOND SPELL (1956), *Assistant Professor of Biochemistry in Medicine*
A.B., 1937 (Wofford); M.S., 1944 (Georgia); Ph.D., 1955 (North Carolina)
- LOUISA LANHAM SPELL (1958), *Instructor in Nursing*
B.A., 1937 (Converse College); B.S., 1941 (Vanderbilt); R.N.; M.S.P.H., 1945 (North Carolina)
- JOHN KEITH SPITZNAGEL (1957), *Assistant Professor of Bacteriology*
B.A., 1943, M.D., 1946 (Columbia)
- GEORGE HANSFORD SPOONER (1958), *Instructor in Biochemistry and Nutrition*
B.S., 1950 (Miami); Ph.D., 1958 (North Carolina)
- 43 CORYDON PERRY SPRUILL (1922), *Professor of Economics*
A.B., 1920 (North Carolina); B.Lit., 1922 (Oxford)
- WILLIAM HUTCHINSON SPRUNT, III (1952), *Associate Professor of Radiology*
B.S., 1942 (Davidson); M.D., 1945 (Harvard)
- MRS. MARVIN HENDRIX STACY (1919), *Dean of Women, Emeritus (1946)*
Graduate, 1907 (N. C. State Normal and Industrial College)
- LOIS FOOTE STANFORD (1940), *Clinical Assistant Professor of Medicine*
M.D., 1921 (Pennsylvania)
- WILLIAM RANEY STANFORD (1934), *Clinical Associate Professor of Medicine*
A.B., 1915 (North Carolina); M.D., 1919 (Pennsylvania)
- CHARLES RAY STARLING (1957), *Instructor in Psychiatry*
B.S., 1949 (North Carolina); M.D., 1952 (Maryland)
- JAMES GORDON STEAGALL (1956), *Bureau of Conferences and Short Courses, Extension Division*
B.S. in B.A., 1954 (North Carolina)
- ALBERT STEWART, JR. (1957), *Clinical Instructor in Medicine*
B.A., 1941 (North Carolina); M.D., 1944 (Washington)
- PEARSON HASLAM STEWART (1952), *Lecturer in Planning*
A.B., 1940 (Amherst); M.C.P., 1946 (Massachusetts Institute of Technology)
- ROBERT EDWIN STIPE (1957), *Assistant Director of the Institute of Government*
A.B., 1950, LL.B., 1953 (Duke)
- JOSEPH ST. JEAN, JR. (1957), *Assistant Professor of Geology*
B.S., 1949 (College of Puget Sound); M.A., 1953, Ph.D., 1956 (Indiana)
- FREDERICK W. STOCKER (1952), *Clinical Consultant in Surgery (Ophthalmology)*
M.D., 1920 (Bern)
- THOMAS STORER (1958), *Visiting Professor of Philosophy*
A.B., 1941, Ph.D., 1947 (Iowa)
- STERLING AUBREY STOUDEMIRE (1923), *Professor of Spanish*
A.B., 1923, A.M., 1924, Ph.D., 1930 (North Carolina)
- JOSEPH WARD STRALEY (1944), *Professor of Physics*
B.S. in Ed., 1936 (Bowling Green State University); M.Sc., 1937, Ph.D., 1941 (Ohio State)
- WILLIAM RINGGOLD STRAUGHN, JR. (1944), *Assistant Professor of Bacteriology and Adviser in the General College*
B.S., 1935 (Mansfield State Teachers College); M.S., 1940 (Cornell); Ph.D., 1958 (Pennsylvania)
- HAMMOND STRAYHORN (1946), *Instructor in Physical Education*
S.B., 1938, A.M., 1949 (North Carolina)

42. Absent on leave, September 15, 1958, to, August 31, 1959.

43. Absent on leave, fall semester, 1958-1959.

- LLOYD H. STRICKLAND (1958), *Lecturer in Psychology and Research Associate in the Institute for Research in Social Science*
A.B., 1953 (Johns Hopkins); M.A., 1956, Ph.D., 1958 (North Carolina)
- WILLIAM DOUGLAS STRICKLAND (1956), *Assistant Professor of Operative Dentistry*
B.S., 1950 (Wake Forest); D.D.S., 1956 (North Carolina)
- HANS HERMANN STRUPP (1957), *Associate Professor of Psychology in the Departments of Psychiatry and Psychology and Director of Psychological Services, Department of Psychiatry*
A.B., 1945, A.M., 1947, Ph.D., 1954 (George Washington)
- OTTO STUHLMAN, JR. (1919), *Professor of Physics, Emeritus (1953)*
B.A., 1907 (Cincinnati); M.A., 1909 (Illinois); Ph.D., 1911 (Princeton)
- CLIFFORD MAX STURDEVANT (1950), *Associate Professor of Operative Dentistry*
D.D.S., 1943 (Emory)
- ROGER EDWARD STURDEVANT (1950), *Professor of Operative Dentistry*
D.D.S., 1916 (Nebraska)
- KENNETH SUGIOKA (1954), *Associate Professor of Surgery (Anesthesiology)*
B.S., 1946 (Denver); M.D., 1949 (Washington University)
- GEORGE KENDRICK SUMMER (1957), *Instructor in Pediatrics*
B.S., 1944 (North Carolina); M.D., 1951 (Harvard)
- ALBERT IRVING SUSKIN (1936), *Professor of Latin*
A.B. in Educ., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)
- BENJAMIN FRANKLIN SWALIN (1935), *Professor of Music in Extension; Director, North Carolina Symphony Orchestra*
B.S., 1928, M.A., 1930 (Columbia); Ph.D., 1932 (Vienna); Diplomas, 1926, 1928 (Institute of Musical Art, New York City); Diplomas, 1932 (Hochschule für Musik, Vienna)
- FRANKLIN WILBURN SWANN (1956), *Lieutenant Colonel, United States Air Force; Professor of Air Science*
B.A., 1939 (Florida)
- MARGARET CATHERINE SWANTON (1948), *Associate Professor of Pathology*
A.B., 1943 (North Carolina); M.D., 1946 (Johns Hopkins)
- LUTHER RAYMOND TAFF (1956), *Associate Professor of Education*
A.B., 1936, M.Ed., 1952, Ph.D., 1954 (North Carolina)
- ERNEST WILLIAM TALBERT (1949), *Professor of English*
A.B., 1929 (San Jose State College); M.A., 1931, Ph.D., 1936 (Stanford)
- 44 LUTHER MARCUS TALBERT (1958), *Instructor in Obstetrics and Gynecology*
B.A., 1949 (Emory and Henry); M.D., 1953 (Virginia)
- DONALD GENTRY TARBET (1952), *Associate Professor of Education*
B.S., 1938, M.E., 1946, Ed.D., 1952 (Missouri)
- JAMES MOORE TATUM (1956), *Head Football Coach*
B.S., 1935 (North Carolina)
- HENRY TAUBER (1950), *Associate Professor of Experimental Medicine*
Ph.D., 1927 (Vienna)
- GEORGE COFFIN TAYLOR (1925), *Kenan Professor of English, Emeritus (1949)*
A.B., 1897, Litt.D. (South Carolina); A.M., 1899 (Harvard); Ph.D., 1906 (Chicago)
- GEORGE VANDERBECK TAYLOR (1952), *Associate Professor of History*
B.A., 1941 (Rutgers); M.A., 1949, Ph.D., 1950 (Wisconsin)
- HARDEN FRANKLIN TAYLOR (1949), *Consultant in the Institute of Fisheries Research*
A.B., 1913 (Trinity College); Sc.D. (Duke)
- ISAAC MONTROSE TAYLOR (1952), *Associate Professor of Medicine and Markle Scholar in Medical Science*
A.B., 1942 (North Carolina); M.D., 1945 (Harvard)
- JAMES ALEXANDER TAYLOR (1949), *Associate University Physician and Clinical Assistant Professor of Medicine*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)
- RANSOM THEODORE TAYLOR (1956), *Assistant Professor of German*
Lic.Oec., 1939 (Handelssochsch, St. Gallen, Switzerland); A.M., 1949 (U.C.L.A.); Ph.D., 1956 (California)

- WILLIAM WEST TAYLOR (1952), *Instructor in Hospital Pharmacy and Chief Pharmacist, North Carolina Memorial Hospital*
S.B., 1947 (North Carolina)
- WILLIAM ADOLPH TERRILL (1951), *Associate Professor of Accounting*
B.B.A., 1938, B.S., 1940 (Cincinnati); M.S., 1949, Ph.D., 1952 (Illinois); C.P.A., 1952 (State of Illinois)
- JAMES D. THAYER (1950), *Assistant Professor of Experimental Medicine*
B.S., 1929, M.S., 1931, Ph.D., 1936 (Washington)
- JOHN WALTER THIBAUT (1953), *Professor of Psychology and Sociology and Research Professor in the Institute for Research in Social Science*
B.A., 1939 (North Carolina); Ph.D., 1949 (Massachusetts Institute of Technology)
- COLIN G. THOMAS, JR. (1952), *Associate Professor of Surgery*
B.S., 1940, M.D., 1943 (Chicago)
- HENRY CARRISON THOMAS (1957), *Professor of Chemistry*
B.S. in Chem., 1931, M.S., 1932 (North Carolina); Ph.D., 1935 (Yale)
- HERMAN ORA THOMPSON (1946), *Professor of Pharmacy*
S.B. in Phar., 1937 (North Carolina); M.S., 1940, Ph.D., 1944 (Purdue)
- LEE ROY THOMPSON (1956), *Clinical Instructor in Periodontology and Oral Pathology*
D.D.S., 1922 (Atlanta-Southern Dental College)
- ELIZABETH DUDLEY THOMSON (1957), *Librarian for Personnel*
B.S. in L.S., 1950 (Mississippi State College for Women)
- EDGAR FAULCON THORNE (1956), *Assistant Professor of Art*
A.B., 1941, A.M., 1949 (North Carolina)
- GARETH D. THORNE (1957), *Lecturer in Psychology in Department of Psychiatry*
B.A., 1951, M.A., 1954 (Denver)
- DOROTHY BRADLEY THORP (1954-56; 1957), *Instructor in Nursing*
B.S.N., 1952 (Western Reserve); R.N.
- LEWIS SUMNER THORP (1957), *Clinical Instructor in Medicine*
B.S., 1949 (North Carolina); M.D., 1952 (Pennsylvania)
- THELMA GWINN THURSTONE (1952), *Professor of Education*
A.B., 1917, B.S. in Ed., 1920 (Missouri); A.M., 1923 (Carnegie Institute of Technology); Ph.D., 1926 (Chicago)
- CARL TIEDEMAN (1958), *Captain, United States Navy; Professor of Naval Science*
B.S., 1933 (United States Naval Academy); Diploma, 1953 (U. S. War College, Newport)
- CHARLES WALTER TILLET, III (1957), *Instructor in Surgery (Ophthalmology)*
A.B., 1942 (North Carolina); M.D., 1946 (Johns Hopkins)
- LOIS PUTNAM TILLMAN (1957), *Instructor in Medical Technology (Microbiology)*
B.S., 1946 (Mississippi State College for Women)
- ⁴⁵ROBERT LANSING TIMMONS (1958), *Instructor in Surgery*
B.S., 1950 (Yale); M.D., 1953 (Harvard)
- GEORGE BROWN TINDALL (1958), *Associate Professor of History*
A.B., 1942 (Furman); M.A., 1948, Ph.D., 1951 (North Carolina)
- RUSSELL STUART TOBIAS (1958), *Research Associate in Chemistry*
B.S., 1952, Ph.D., 1956 (Ohio State)
- AUBREY GRANVILLE TOLLEY (1956), *Instructor in Psychiatry*
M.D., 1952 (Virginia)
- LOIS C. TORGESON (1958), *Instructor in Nursing*
B.S.N.Ed., 1952 (Oregon State); R.N.; M.S.N.Ed., 1958 (Oregon)
- HENRY ROLAND TOTEN (1913), *Professor of Botany*
A.B., 1913, A.M., 1914, Ph.D., 1923 (North Carolina)
- NEAL HERRER TRACY (1958), *Assistant Professor of Education*
B.S., 1940 (North Dakota State College); M.Ed., 1950 (South Dakota); Ed.D., 1958 (Colorado)
- RALPH McCOY TRIMBLE (1923), *Professor of Applied Mathematics*
C.E., 1921 (Virginia); S.M., 1927 (North Carolina)
- JOAN R. TRON (1956), *Research Associate in the Institute for Research in Social Science*
A.B., 1945 (Radcliffe), M.I.A., 1948 (Columbia)

- VALENTIN IVANOVICH TSONEV (1952), *Research Associate in the Institute for Research in Social Science*
Degree of Mechanical Engineer, 1930 (Lomonosov Institute of Technology, Moscow)
- ELIZABETH SIMMONS TUCKER (1957), *Chemistry Librarian*
A.B., 1957 (North Carolina)
- EMILY TUFTS (1955), *Clinical Instructor in Pediatrics*
A.B., 1946 (North Carolina); M.D., 1950, M.S., 1954 (Temple)
- FRED TULLAI (1956), *Assistant Football Coach*
B.S., 1956 (Maryland)
- LARRY TURNER (1952), *Consultant in Surgery (Ophthalmology)*
A.B., 1935, M.D., 1939 (Duke)
- ARTHUR NORMAN TUTTLE, JR. (1958), *Lecturer in Planning and Research Fellow in the Institute for Research in Social Science*
B.S., 1952 (Virginia Polytechnic Institute); M.F.A., 1955 (Princeton)
- EUNICE NICKERSON TYLER (1945), *Professor of Public Health Education*
Ph.B., 1931 (Brown); C.P.H., 1933, M.P.H., 1936, Ph.D., 1946 (Yale)
- SHEPPARD YOUNG TYREE, JR. (1946), *Professor of Chemistry*
B.S., 1942, Ph.D., 1946 (Massachusetts Institute of Technology)
- BERTHOLD LOUIS ULLMAN (1944), *Kenan Professor of Classical Languages and Literatures*
A.B., 1903, Ph.D., 1908 (Chicago)
- HARRY S. UPSHAW (1958), *Lecturer in Psychology and Assistant Research Professor of Public Health Nursing in the School of Public Health*
A.B., 1949 (Chicago); M.A., 1951 (Northwestern); Ph.D., 1956 (North Carolina)
- LON ESKER USSERY, JR. (1956), *Instructor in Psychology*
B.A., 1950 (Richmond)
- RUPERT BAYLESS VANCE (1929), *Kenan Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1920 (Henderson-Brown); A.M., 1921 (Vanderbilt); Ph.D., 1928 (North Carolina); LL.D. (Hendrix College; Arkansas)
- 46 CHARLES DURWARD VAN CLEAVE (1940), *Associate Professor of Anatomy*
A.B., 1925 (Colorado); Ph.D., 1928 (Chicago)
- MAURICE TAYLOR VAN HECKE (1921), *Kenan Professor of Law*
Ph.B., 1916, J.D., 1917 (Chicago)
- JUDSON JOHN VAN WYK (1955), *Assistant Professor of Pediatrics and Markle Scholar in Medical Science*
A.B., 1943 (Hope College); M.D., 1948 (Johns Hopkins)
- 47 WALTER WEDDLE VAUGHAN (1940), *Clinical Associate Professor of Radiology*
A.B., 1929 (North Carolina); M.D., 1933 (Jefferson Medical College)
- DAVID L. VENEZKY (1958), *Instructor in Chemistry*
B.S., 1948 (George Washington)
- CHARLES ROBERTSON VERNON (1956), *Instructor in Psychiatry*
A.B., 1948 (North Carolina); M.D., 1952 (Western Reserve)
- TOM ALFORD VESTAL (1957), *Clinical Instructor in Obstetrics and Gynecology*
A.B., 1949 (North Carolina); M.D., 1953 (Duke)
- ROBERT BROWN VOITL (1952), *Assistant Professor of English*
A.B., 1949, A.M., 1950, Ph.D., 1954 (Harvard)
- WILLIAM JOSEPH WADDELL (1958), *Assistant Professor of Pharmacology*
A.B., 1951, M.D., 1955 (North Carolina)
- PAUL WOODFORD WAGER (1926), *Professor of Political Science and Staff Affiliate in the Institute for Research in Social Science*
B.S., 1917 (Hobart College); A.M., 1920 (Haverford); Ph.D., 1927 (North Carolina)
- ROBERT HOWARD WAGNER (1950), *Assistant Professor of Pathology in Pathological Chemistry and Assistant Professor of Biochemistry*
A.B., 1943 (DePauw); Ph.D., 1950 (Cincinnati)
- PETER FRANKLIN WALKER (1958), *Instructor in History*
A.B., 1952 (Mississippi College); M.A., 1956, Ph.D., 1958 (Vanderbilt)

46. Absent on leave, September 1, 1957, to, August 31, 1959.

47. Resigned October 1, 1958.

- 47a DRURY WILLIAM WALL (1955), *Assistant Professor of Mathematics*
B.S., 1948, M.S., 1950 (Tulane); Ph.D., 1954 (Michigan)
- EARLE WALLACE (1956), *Instructor in Political Science*
A.B., 1951 (Citadel); M.A., 1953 (North Carolina)
- WESLEY H. WALLACE (1952), *Associate Professor of Radio, Television, and Motion Pictures*
B.S., 1932 (North Carolina State); M.A., 1954 (North Carolina)
- MARTIN J. WALSH (1958), *Instructor in Experimental Medicine*
B.S., 1953, M.S., 1955 (Kentucky)
- BENJAMIN WALTER (1958), *Instructor in Political Science*
A.B., 1952 (Yale); M.P.A., 1953 (Syracuse)
- LOUISE MURPHY WARD (1952), *Instructor in Bacteriology and Research Associate in Medicine*
A.B., 1933 (Woman's College, North Carolina); M.P.H., 1947 (Michigan)
- SARAH LOU WARREN (1956), *Instructor in Preventive Medicine and Medicine*
A.B., 1944 (North Carolina); M.D., 1949 (Medical College of Virginia)
- THOMAS CAMPBELL WASHBURN (1958), *Instructor in Experimental Medicine*
B.A., 1953 (Amherst); M.D., 1955 (Harvard)
- GLENN ELSON WATKINS (1958), *Assistant Professor of Music*
A.B., 1948, M.M., 1949 (Michigan); Ph.D., 1953 (Rochester)
- RALPH M. WATKINS (1953), *Clinical Associate Professor of Medicine*
B.S., 1918, M.D., 1920 (Syracuse)
- LEWIS POINDEXTER WATTS, JR. (1958), *Assistant Director of the Institute of Government*
A.B., 1949 (Wofford); J.D., 1957 (North Carolina)
- FREDERICK HENRY WEAVER (1946), *Dean of Student Affairs*
A.B., 1937 (North Carolina); A.M., 1950 (Harvard)
- ALEXANDER WEBB, JR. (1953), *Clinical Assistant Professor of Surgery*
A.B., 1933 (North Carolina); M.D., 1937 (Harvard)
- JAMES MURRAY WEBB (1947), *Professor of Planning*
A.B., in Architecture, 1937 (California); M.C.P., 1946 (Massachusetts Institute of Technology)
- FREDERICK RENFROE WEEDON (1956), *Visiting Professor of Anatomy*
B.S., 1921, M.S., 1923 (Florida); M.D., 1929 (Rush Medical College, University of Chicago)
- WALTER ERWIN WEILAND (1958), *Instructor in Physical Education*
B.S., 1957 (Cortland State); M.S., 1958 (Penn State)
- DONALD DOUGLAS WEIR (1958), *Instructor in Medicine*
B.A., 1948 (Drake); M.D., 1953 (Iowa)
- CHARLES MANUEL WEISS (1956), *Associate Professor of Sanitary Science*
B.S., 1939 (Rutgers); Ph.D., 1950 (Johns Hopkins)
- SHIRLEY FRIEDLANDER WEISS (1958), *Lecturer in Planning and Research Associate in the Institute for Research in Social Science*
B.A., 1942 (Rutgers); M.R.P., 1958 (North Carolina)
- HENRY BRADLEY WELLS (1958), *Instructor in Biostatistics in the School of Public Health*
B.A., 1950 (Emory); M.S.P.H., 1953 (North Carolina)
- JAMES HOWARD WELLS (1958), *Instructor in Mathematics*
B.S., 1952, M.S., 1954 (Texas Technological College); Ph.D., 1958 (Texas)
- WARNER LEE WELLS (1952), *Assistant Professor of Surgery*
A.B., 1934, M.D., 1938 (Duke)
- WILLIAM SMITH WELLS (1935), *Kenan Professor of English and Chairman of the Faculty*
A.B., 1929, A.M., 1930 (Southern California); Ph.D., 1935 (Stanford)
- 48 GEORGE SCHLAGER WELSH (1953), *Associate Professor of Psychology in Department of Psychology; Clinical Associate Professor of Psychology in Department of Psychiatry*
A.B., 1940 (Pennsylvania); Ph.D., 1949 (Minnesota)
- LOUIS GORDON WELT (1952), *Professor of Medicine*
A.B., 1934 (New York); M.D., 1938 (Yale)

47a. Absent on leave, spring semester, 1959.

48. Absent on leave, 1958-1959.

- ROBERT HASLEY WETTACH (1921), *Professor of Law*
A.B., 1913, M.A., 1914, LL.B., 1917 (Pittsburgh); S.J.D., 1921 (Harvard)
- WALTER HALL WHEELER (1951), *Associate Professor of Geology*
B.S., 1945, M.S., 1948 (Michigan); Ph.D., 1951 (Yale)
- PAUL FREDERICK WHITAKER (1953), *Clinical Associate Professor of Medicine*
M.D., 1922 (Medical College of Virginia); LL.D. (North Carolina)
- JAMES STARK WHITE (1956), *Clinical Instructor in Pediatrics*
B.S., 1945 (North Carolina); M.D., 1947 (Northwestern)
- KERR LACHLAN WHITE (1953), *Associate Professor of Medicine and Preventive Medicine*
B.A., 1940, M.D., C.M., 1949 (McGill)
- WILLIAM ALEXANDER WHITE (1944), *Professor of Geology*
A.B., 1930 (Duke); A.M., 1931, Ph.D., 1938 (North Carolina); M.S., 1934 (Montana School of Mines)
- ARTHUR MURRAY WHITEHILL, JR. (1949), *Reynolds Professor of Human Relations in Industry*
B.S., 1942, M.A., 1943, Ph.D., 1945 (Virginia)
- MAURICE WHITTINGHILL (1942), *Professor of Zoology*
A.B., 1931 (Dartmouth); Ph.D., 1937 (Michigan)
- ⁴⁹WILLIAM M. WHYBURN (1948), *Kenan Professor of Mathematics*
A.B., 1922, M.A., 1923, Ph.D., 1927 (Texas); LL.D. (Texas Technological College)
- WARREN J. WICKER (1955), *Assistant Director of the Institute of Government*
A.B., 1948, M.A., 1950 (North Carolina)
- ABE WIDRA (1955), *Instructor in Bacteriology*
A.B., 1948 (Brooklyn); M.S., 1952 (Florida); Ph.D., 1954 (Pennsylvania)
- WILLIAM LEON WILEY (1925-28; 1931), *Kenan Professor of French*
A.B., 1921 (Chattanooga); A.M., 1925, Ph.D., 1930 (Harvard)
- CHARLES B. WILKERSON (1952), *Clinical Instructor in Medicine*
A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Virginia)
- AUSTIN BEATTY WILLIAMS (1952-55; 1956), *Associate Professor in the Institute of Fisheries Research*
A.B. 1943 (McPherson); Ph.D., 1951 (Kansas)
- CHARLES FREDERICK WILLIAMS (1957), *Clinical Instructor in Pediatrics*
A.B., 1930 (North Carolina); M.D., 1934 (Jefferson)
- JOAN VIRGINIA WILLIAMS (1958), *Instructor in Psychology in the Department of Psychiatry*
B.A., 1951 (Bryn Mawr); M.A., 1953 (Michigan)
- THOMAS FRANKLIN WILLIAMS (1956), *Assistant Professor of Medicine and Preventive Medicine and Markle Scholar in Medical Science*
B.S., 1942 (North Carolina); M.A., 1943 (Columbia); M.D., 1950 (Harvard)
- ERNEST WILLIAMSON (1956), *Instructor in Physical Education*
B.A., 1951, M.A., 1952 (North Carolina)
- GERTRUDE MITCHELL WILLIS (1957), *Clinical Instructor in Medicine*
B.A., 1927 (Wayne); M.D., 1930 (Michigan)
- HENRY STUART WILLIS (1954), *Clinical Associate Professor of Medicine*
B.A., 1914 (North Carolina); M.D., 1919, M.A., 1920 (Johns Hopkins)
- JOHN ERIC WILSON (1950), *Assistant Professor of Biochemistry and Nutrition*
S.B., 1941 (Chicago); M.S., 1944 (Illinois); Ph.D., 1948 (Cornell)
- LOUIS ROUND WILSON (1901-32; 1942), *Professor of Library Science and Administration*
A.B., 1899, A.M., 1902, Ph.D., 1905 (North Carolina); Litt.D. (Denver); LL.D. (Haverford; North Carolina); L.H.D. (Catawba)
- ROBERT LOUIS WILSON (1957), *Lecturer in Planning and Research Associate in the Institute for Research in Social Science*
B.A., 1952 (Antioch College); M.R.P., 1957 (North Carolina)
- WALTER HOWARD WILSON (1952), *Clinical Assistant Professor of Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Jefferson)

49. On leave, 1958-1959.

- WHITTEN PHILIP WINDHAM (1958), *Instructor in Accounting*
B.S., 1957, M.S., 1958 (Alabama)
- REX SHELTON WINSLOW (1929), *Professor of Economics and Director, Bureau of Business Services and Research, School of Business Administration*
A.B., 1923 (Simpson College); A.M., 1929 (Illinois); Ph.D., 1936 (North Carolina)
- ARTHUR SIMEON WINSOR (1919), *Professor of Mathematics, Emeritus (1956)*
A.B., 1914, A.M., 1915 (Mount Allison College); Ph.D., 1927 (Johns Hopkins)
- WILLIAM ALPHONSO WITHERS (1952), *Clinical Instructor in Medicine*
A.B., 1932 (North Carolina); M.D., 1937 (Chicago)
- HARRY DEMERLE WOLF (1928), *Professor of Economics*
B.S., 1922 (Kansas State Teachers College); A.M., 1923, Ph.D., 1926 (Chicago)
- NATHAN ANTHONY WOMACK (1951), *Professor of Surgery*
S.B., 1922 (North Carolina); M.D., 1924 (Washington University)
- ERNEST HARVEY WOOD (1952), *Professor of Radiology*
B.A., 1935 (Duke); M.D., 1939 (Harvard)
- MARION STAUNTON WOOD (1956), *Professor of Nursing*
Diploma in Nursing, 1929 (Garfield Memorial Hospital, Washington); R.N.; B.S., 1939 (Ohio State); M.A., 1955 (Teachers College, Columbia)
- MATTHEW THOMAS WOOD (1958), *Instructor in Prosthodontics*
D.D.S., 1958 (North Carolina)
- MILDRED LOUISE WOOD (1957), *Assistant Professor of Physical Therapy*
B.S., 1942 (East Stroudsburg State Teachers College); M.A., 1957 (Duke)
- EDWARD JAMES WOODHOUSE (1926), *Professor of Political Science, Emeritus (1954)*
B.A., 1903 (Randolph-Macon); LL.B., 1907 (Virginia)
- JAMES WATSON WOODS (1953), *Associate Professor of Medicine*
A.B., 1939 (Tennessee); M.D., 1943 (Vanderbilt)
- ISAAC CLARK WRIGHT (1952), *Clinical Instructor in Medicine*
B.S., 1942 (North Carolina); M.D., 1944 (Maryland)
- JOHN JOSEPH WRIGHT (1957), *Professor of Public Health Administration*
A.B., 1931, M.D., 1935 (Vanderbilt); M.P.H., 1939 (Johns Hopkins)
- EARL WYNN (1938), *Professor of Radio, Television, and Motion Pictures, Director of the Communication Center, and Director of Television*
A.B., 1932 (Augustana College); M.S., 1934 (Northwestern)
- WILLIAM GEOFFREY WYSOR, JR. (1956), *Instructor in Medicine*
B.A., 1947, M.D., 1950 (Virginia)
- CLAUDE L. YARBRO (1955), *Instructor in Biochemistry and Nutrition*
B.A., 1943 (Lambuth); Ph.D., 1954 (North Carolina)
- FRANCES LYDIA YOCOM (1946), *Chief, Catalogue Department, University Library*
A.B., 1921 (Oberlin); B.L.S., 1931 (Western Reserve); M.A. in L.S., 1939 (California)
- JOHN T. YOKE, III (1958), *Instructor in Chemistry*
B.S., 1948 (Yale); M.S., 1950, Ph.D., 1954 (Michigan)
- LLOYD ROBERT YONCE (1957), *Assistant Professor of Physiology*
B.S., 1949 (Montana State); M.S., 1952 (Oregon State); Ph.D., 1955 (Michigan)
- DANIEL TEST YOUNG (1955), *Assistant Professor of Medicine*
B.S., 1946 (Guilford College); M.D., 1950 (Harvard)
- DAVID ALEXANDER YOUNG (1945), *Clinical Professor of Psychiatry*
A.B., 1928 (North Carolina); M.D., 1931 (Harvard)
- ⁵⁰JOHN E. YOUNG (1950), *Assistant Professor of Radio, Television, and Motion Pictures and Director of Television, Chapel Hill Studios, WUNC-TV*
A.B., 1948 (North Carolina); M.A., 1956 (Northwestern)
- WILLIAM BEAUREGARD YOUNG (1957), *Clinical Instructor in Medicine*
M.D., 1948 (Emory)
- E-AN ZEN (1958), *Visiting Assistant Professor of Geology*
B.A., 1951 (Cornell); M.A., 1952, Ph.D., 1955 (Harvard)
- ROBERT ZEPPA (1958), *Instructor in Surgery*
A.B., 1948 (Columbia); M.D., 1952 (Yale)
- BETTY GRAY ZOUCK (1949), *Botany-Zoology Librarian*
A.B., 1933, A.B. in L.S., 1934 (North Carolina)

⁵⁰ 50. Absent on leave, 1958-1959.

GRADUATE APPOINTMENTS, 1958-1959

Teaching Fellows

JAMES WILLIAM BATTEN, A.B., M.A.	Education
SAMUEL OSCAR BIRD, II, B.S., M.S.	Geology and Geography
MARTHA JEAN BURTON, A.B., M.A.	English
PAUL RAY BURTON, B.S., M.S.	Zoology
LARRY STEPHEN CHAMPION, A.B., M.A.	English
ROBERT LEE GREEN CONNELLY, B.A.	Romance Languages
RAYMOND HOWARD COX, B.S.	Mathematics
MARION BAYARD FOLSOM, B.A., M.A.	English
JUSTIN FULLER, JR., B.S., M.A.	History
JEROME HOLLANDER, B.A.	Chemistry
DONALD BEARSS JEFFREYS, B.S., M.A.	Botany
NORMAN McCLURE JOHNSON, B.S.	History
JULIAN WARD JONES, B.A., M.A.	Classics
WILLIAM LUPO KING, A.B., M.A.	Romance Languages
EDMUND TAYLOR KITTLEMAN, B.A., B.S., M.S.	Chemistry
MYRON L. KOCHER, B.A., M.A.	Romance Languages
MARGARET ROGERS LAW, B.A., M.A.	Political Science
WILBUR TERRY LAYTON, B.S.	Chemistry
NELDA HOOPER McDERMOTT, B.A.	Mathematics
JAMES FRANCIS OAKES, B.A.	Psychology
JOHN H. RUGHEIMER, B.S.	Physics
JOHNNY BOOTH SMALLWOOD, JR., B.A., M.A.	History
MARK CUSHMAN THELIN, A.B.	Sociology and Anthropology
WALLACE GLENN WEBB, B.S., M.S.	Economics
HAROLD OSWALD WHITE, A.B.	Germanic Languages
JUNE MARY ZACCONE, A.B., A.M.	Economics

Part-Time Instructors

BARRY B. ADAMS, B.S.	English
ANN ROYAL ARTHUR, B.S.M., M.M.	Germanic Languages
RALPH PAGE ASHWORTH, B.S., M.A.	Botany
IEVA AŠMYTE, A.B., M.A.	Germanic Languages
ROY E. AYCOCK, B.A., M.A.	English
SPURGEON WHITFIELD BALDWIN, B.S., M.A.	Romance Languages
ROBERT W. VALENTINE, B.A.	Psychology
DONALD L. BALL, B.A., M.A.	English
ROBERT JOHN BARNETT, B.A.	Classics
ROBERT EGNER BEITZELL, A.B., M.A.	History
AGNES LEE BELL, B.S.	Mathematics
WALTER HOUGHTON BISHOP, A.B., M.A.	Romance Languages
PHILIP E. BLANK, JR., A.B., M.A.	English
SAUL BORODKIN, B.S.	Pharmacy
ROBERT LEWIS BOWMAN, B.A.	Political Science
ROMULUS JACK BROWN, B.A.	Mathematics
LARRY LEE BUMGARNER, B.A.	Mathematics
SARAH H. CARAWAY, A.B., M.Ed.	Education
ALICE FELICITAS CARSE, A.B., B.D.	Germanic Languages
ALLEN HARRIS CHAPPEL, A.B., M.A.	Germanic Languages
SHU-SING CHENG, B.S.	Pharmacy
ROBERT JEROLD CLACK, B.A.	Philosophy
LAWRENCE J. CLIPPER, A.B., M.A.	English

WALTER RANDALL CRADDOCK, A.B., M.A.	History
GEORGE EDWARD CREVAR, B.S.	Pharmacy
ARNOLD EUGENE CROTTY, B.C.S., B.S.	Business Administration
GILBERT R. DAVIS, A.B., A.M.	English
RUSSELL DUKE DEMENT, B.A., M.A.	Romance Languages
JO JUNE DEWEESE, A.B., M.A.	English
JOSEPH VICTOR DiBERARDINO, A.B.	Economics
DOROTHY ANN DISSINGER, B.A.	Psychology
JOHN DANIEL DUKE, B.A., M.A.	Psychology
RUFUS SHELDON DUNHAM, JR., A.B.	Germanic Languages
RICHARD MAREEN DUVALL, B.S., M.S.	Economics
JOHN B. EASLEY, B.A., M.A.	English
RICHARD B. EATON, B.A., M.A.	English
DONALD LEE ELLIOTT, B.A.	Mathematics
HERBERT A. ELLIS, B.A., M.A.	English
JOHN ROSE FAUST, B.A., M.A.	Political Science
FRED TUCKER FAYED, S.B.	Pharmacy
METRO FEDORCHUK, B.S.P., M.S.	Pharmacy
DAVID A. FINLEY, B.S., M.B.A.	Business Administration
CARL V. FISHER, B.S.	Business Administration
JESSE C. FISHER, B.S., A.M.	Economics
RICHARD McILWAINE FRAZER, B.A., M.A.	Classics
WILLIAM JOSEPH FREE, A.B.	English
DONALD MCKINLEY FREEMAN, B.A., M.A.	Political Science
RONALD OWEN FULP, B.S.	Mathematics
HAROLD W. FULWEILER, A.B., M.A.	English
ROSEMARIE FUSSENEGGER, Mag.d. Phar.	Pharmacy
JAMES WATTS GARDNER, B.A., M.A.	English
JOHN SANFORD GIBSON, JR., B.A.	Mathematics
STUART GOLANN, B.A.	Psychology
PAUL C. GOLDIN, B.A.	Psychology
SARAH LEE GOODMAN, B.A.	Mathematics
JOHN ALFRED GORMAN, A.B.	Psychology
PHILIP M. GRIFFITH, B.A., M.A.	English
JOHN MINOR GWYNN, JR., B.S.	Mathematics
ROBERT AUBURN HALL, A.B., M.A.	Romance Languages
NED FINLEY HARBIN, B.A.	Romance Languages
DAVID ALFRED HERNÁNDEZ, B.A., M.A.	Romance Languages
WAVERLY ERWIN HESTER, B.A., M.A.	English
ALETTE LOUISE HILL, B.A.	English
SAMUEL PHILIP HINES, A.B.	English
RICKEY JOE HINSON, B.A.	Mathematics
ALLEN FREDERICK HIRSCH, B.S.	Pharmacy
PAUL B. HOUNSHELL, B.S., M.S.	Education
MARGARET AGNES HUNT, B.A., M.A.	Political Science
ELIZABETH HUNTER, B.A.	Classics
CHARLES JAVENS, B.A., M.A.	Romance Languages
ERNEST H. JOHANSSON, A.B., B.S., M.A.	English
DAVID DONOVAN JOHNSON, B.S.Ed., M.A.	Romance Languages
JERAH WILLIAMS JOHNSON, B.A., M.A.	History
MAXIMILIAN BUCHARDT JONES, B.A., M.S.	Business Administration
MARTIN PETER JURKAT, B.A.	Mathematics
FRANCIS E. KEARNS, B.A., M.A.	English
DONALD CARLTON KING, B.S., M.B.A.	Business Administration
HARRY LEE KING, B.A., M.A.	Romance Languages
ROBERT LEE KNOX, B.S., M.S.	Economics

JOHN HENRY LAPRADE, B.A.	Romance Languages
MARVIN E. LEE, A.B.	Economics
PHILIP A. LEE, B.A.	Romance Languages
ARTHUR LESSING, B.A.	Philosophy
JAMES BAXTER LINDER, B.S., M.A.	Mathematics
DAVID HALLAM LITTLEJOHN, B.A.	Romance Languages
LORRAINE R. LIVELY, B.A.	English
ANTHONY G. LORE, B.A., M.A.	Romance Languages
RICHARD F. MCCOART, B.A., M.A.	Mathematics
JAMES J. MCKEON, B.A., M.A.	Psychology
WILLIAM ERNEST MACKIE, A.B., M.A.	History
HAVEN RAY MCKNIGHT, A.B., M.A.	English
JAMES R. MCQUISTON, A.B., M.A.	English
NATHANIEL FUQUA MAGRUDER, A.B., M.A.	History
WILLIAM RAINEY MANSON, B.A.	Romance Languages
F. MILDRED MARLETTE, A.B., M.A.	English
PHILIP L. MARTIN, B.S.	Political Science
JULIAN DEWEY MASON, A.B., M.A.	English
EDWARD JOHN MATULICH, B.S.	Mathematics
FRANCES MAY, A.B.	Psychology
RICHARD WILLIAM MECHLING, B.A., M.A.	English
WALTER ELMORE MEEKS, B.A., M.A.	Romance Languages
MICHAEL MERBAUM, B.A., M.A.	Psychology
ANCEL CLYDE MEWBORN, B.A., M.A.	Mathematics
CHARLES JOHN MILHAUSER, B.A.	Classics
ROBERT FLOYD MIXON, B.S.	Romance Languages
WILLIAM JUCHTER MONAHAN, B.A.	Romance Languages
CATHERINE ELIZABETH MOORE, A.B., M.A.	English
JACK B. MOORE, A.B., M.A.	English
EDWARD JOSEPH NEUGAARD, B.A., M.A.	Romance Languages
DAVID ORR, A.B., M.A.	English
FRED PARKER, A.B.	Economics
LENNARD JAY PEPPER, B.A., M.A.	Psychology
MICHAEL STERN PINCUS, B.A.	Romance Languages
ROBERT JARED PORTER, B.A., M.B.A.	Economics
ROBERT KARL RAUCH, B.S.	Pharmacy
MARGARET ISABEL RAYNAL, B.A., M.A.	English
WILLIAM FRANCIS REAGAN, A.I.A., B.A., M.A.	Romance Languages
L. TULLY REED, A.B., M.A.	English
ROBERT CHARLES REYNOLDS, B.A., M.A.	English
ALFRED LEONARD RHYNE, JR., B.A.	Mathematics
DOROTHY LOUISE RICHMOND, A.B.	Psychology
WALTER LEROY ROBBINS, A.B.	Germanic Languages
RAY ROBERTS, B.A.	Economics
FRED C. ROBINSON, B.A., M.A.	English
RONALD EDWARD ROBLIN, B.A., M.A.	Philosophy
WARREN ROSE, B.S.	Economics
FRANCIS ROSSNER, LL.B.	Economics
RICHARD LAMAR ROWAN, A.B.	Economics
PRABIR ROY, B.S.	Mathematics
GERALD F. RUTAN, B.A., M.A.	Political Science
FRANKLIN DAVID SANDERS, A.B., M.A.	English
ALFRED OTTO SCHMITZ, B.A.	Philosophy
JAMES ROBERT SELIG, B.S.	English
WILLIAM HARRIS SHUFORD, B.A., M.A.	Romance Languages
PETER KIRK SINCLAIR, B.A., M.A.	Economics

ALBERT BREWSTER SMITH, JR., A.B., M.A.	Romance Languages
GAIL VEERHOFF SMITH, B.A.	Psychology
JANE STUART SMITH, A.B., M.A.	Germanic Languages
LOYD B. SMITH, B.S., M.A.	Mathematics
SIDNEY RUFUS SMITH, JR., A.B.	Germanic Languages
JACKSON GILLEN SPARKS, B.A.	Romance Language
RIA STAMBAUGH, A.B.	Germanic Languages
DAVID PHILLIP STANFORD, B.A.	Mathematics
CARL EDWARD STEINHAUSER, A.B., B.D., M.A.	Germanic Languages
BEVERLY B. SWAN, A.B., M.A.	Education
JAMES CHARLES THOMAS, A.B.	Germanic Languages
JACK EDWARDS THORNTON, B.S.	Economics
JOHN KEYSER TICE, B.A.	Philosophy
DONALD WEBB TUCKER, B.S., M.A.	Romance Languages
FRANK LEROY TURNER, JR., A.B., M.A.	History
FREDERICK WRIGHT VOGLER, A.B., M.A.	Romance Languages
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JOAN ISABEL CASTLE, B.S.	Education
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 WILLIAM A. RUSHING, B.A., M.A., U.S. Public Health Service Trainee in the Institute for Research in Social Science
 ELAINE FREDERICKA SANDS, B.A., U.S. Public Health Service Trainee in Social Work
 BRADBURY SEASHOLES, B.A., M.A., Falk Fellow in Political Science
 FREDERICK SITTON, B.A., M.A., M.F.A., Licentiate in Dramatic Art Scholar in Dramatic Art
 ROLAND HERBERT SNEED, B.S., U.S. Public Health Service Trainee in Social Work
 CHARLES FRED SPERANZA, B.S., Smith, Kline, and French Research Fellow in Pharmacy
 C. MICHAEL SPSSARD, B.S., du Pont Fellow in Education
 REGINALD H. STARR, A.B., Executive Program Scholar in Business Administration
 DOUGLAS WAYNE STEEPLES, A.B., M.A., Danforth Fellow in History
 JOSEPH ELLIS SUGGS, B.A., U.S. Public Health Service Research Fellow in Biochemistry and Nutrition
 RONALD EMERSON THOMAS, B.A., M.A., Institute of Statistics Trust Fund Fellow in Statistics
 JACK EDWARDS THORNTON, B.S., Julian Price Fund Fellow in Economics
 DONALD TOMLIN, B.C.E., Erwin Mills Scholar in Business Administration
 DONALD M. TRAPP, B.A., Jefferson Standard Scholar in Radio, Television, and Motion Pictures
 CLYDE JEFFERSON UMPHLETT, B.S., M.S., William Chambers Coker Fellow in Botany
 EVELYN UNDERWOOD, A.B., M.A., State of North Carolina Delta Kappa Gamma Scholar in History
 ALFRED P. VAN HUYCK, B.A., Sears Roebuck Fellow in City and Regional Planning
 MARTIN S. WALLACH, B.A., M.A., U.S. Public Health Service Trainee in Psychology
 MEREDITH TYLER WHITE, B.A., U.S. Public Health Service Trainee in Social Work
 MICHAEL WOGAN, B.A., M.A., U.S. Public Health Service Trainee in Psychology

Special First-Year Graduate Scholars

- HARVEY AVERCH, B.A. Economics
 EDDIE COVINGTON BASS, A.B. Music
 CHARLES HARWOOD BOWMAN, A.B. History

JAMES CHARLES BROWN, B.S.	Physics
JO ANNE CARLSON, B.S.	English
WALLACE CRAFT FALLAW, B.S.	Geology and Geography
PATRICIA ELIZABETH FOGARTY, A.B.	English
ANN ELIZABETH MORTON, A.B.	Sociology and Anthropology
WILLIAM R. R. TRANSUE, A.B.	Mathematics

Behavioral Science Scholars

MAURICE GLEN JOHNSON, B.A.	Political Science
CORA LOUISE NELSON, B.S.	Economics
GARY MARTIN OLSON, B.A.	Psychology
MARY KATHRYN PUGH, B.A.	Sociology and Anthropology
TIMOTHY ANDRE SMITH, B.A.	Psychology

Southern Fellowship Fellows

GUY FLETCHER ALLEN, B.S.	Chemistry
RICHARD DON BAKER, B.A., M.A.	Political Science
ROBERT F. BANKS, B.A.	Economics
MARY DAVIS BEATY, B.A.	Classics
JOSEPH SCOTT BYRD, B.A.	English
STANLEY WALLACE CAMPBELL, A.B.	History
WAYNE BOYD COUNTS, B.S.	Chemistry
RICHARD AKIN DAVIS, A.B.	History
RALPH LEWIS DAY, B.S., M.S.	Economics
JAMES WESLEY DIMMICK, B.A., M.A.	Political Science
BARBARA ANNE DUVALL, A.B.	History
CHARLES EDWARD EDWARDS, B.S., M.S.	Business Administration
OLIVER B. FULMER, A.B., M.A.	English
JAMES E. GILL, B.A.	English
WILLIAM L. GRAVES, A.B.	Sociology and Anthropology
HARRIET C. JONES, A.B.	English
EMORY KIMBROUGH, B.S.	Sociology and Anthropology
CAROLYN MARSH, B.A.	English
W. EUGENE MORRISON, B.A.	Music
DOROTHY E. PITMAN, B.A., M.A.	Sociology and Anthropology
ROSAMOND PUTZEL, A.B., M.A.	English
JOHN SHERWOOD RISER, B.A.	Philosophy
JOANNA H. SCROGGS, A.B.	English
JAMES E. SHOCKLEY, JR., A.B.	Mathematics
JAMES P. SMITH, A.B.	English
HERMAN WARD TAYLOR, B.A.	Classics
THOMAS C. WARE, B.A.	English
ROBERT B. WHITE, JR., A.B., M.A.	English
PETER BEEKEN YOUNG, A.B.	History

Woodrow Wilson Fellowship Fellows

DOROTHY JEAN ADAMSON, B.S.	Sociology and Anthropology
EARL FRANKLIN BARGAINNIER, B.A.	English
RICHARD THOMAS BIENVENU, A.B.	History
CONSTANCE ELIZABETH DEUCHER, B.A.	English
GARY MELVIN HIPPS, A.B.	English
JAMES CHARLES HOGAN, B.A.	Classics
JOHN GILL HOLLAND, JR., B.A.	English
DARRYL GILMER HOWERY, B.S.	Chemistry
RICHARD CARL JENSEN, B.A.	Classics
ROGER CONRAD JONES, A.B.	History

MIRIAM LOVE McLAUGHLIN, A.B.	English
NANCY McMEANS, A.B.	English
BENNY FRANK NELMS, B.A.	English
FRANCES LOUISE OSBORN, A.B.	English
LOUIS T. PARKER, JR., B.S.	Mathematics
CARLEY ANN REES, B.A.	Germanic Languages
RANDAL FINK ROBINSON, A.B.	English
ARTHUR JOSEPH SLAVIN, A.B.	History
REBECCA ELLEN SLOVER, B.S.	Mathematics
DORIS MARGARET THOMPSON, B.S.	Chemistry
RINALDO A. L. WALKER, B.A.	English
MARY BESS WHIDDEN, B.A.	English
WILLIAM WILLARD WOLFE, A.B.	History
THOMAS F. WRIGHT, A.B.	English

John Motley Morehead Scholars

WILLIAM G. DOTSON, B.S.	Mathematics
JASPER DURHAM MEMORY, B.S.	Physics

Business Foundation Service Fellows

HARVEY AVERCH, B.A.	Economics
ROBERT CULBERTSON, B.M.E.	Business Administration
JAMES FRANKLIN HICKS, B.S.	Business Administration
WILLIAM EDWARD KESTLER, A.B.	Business Administration
CORA LOUISE NELSON, B.S.	Economics
MICHAEL DOUGLAS SHERIDAN, B.S.	Business Administration
ROBERT HOUSTON SPENCER, B.A.	Business Administration
WILLIAM PRESTON TUGGLE, B.S.	Business Administration

Members of the National Science Foundation Institute for the Academic Year 1958-1959

RONALD EUGENE APPLEMAN	EUGENIA F. McARVER
WAYNE R. AUSTIN	JEAN A. McNEELY
CLARENCE H. BALES	FLOYD E. MATTHEIS
JOSEPH E. BEESON	JAMES D. MELLON, JR.
ROBERT S. BENNETT	ROGER V. MINIONIS
CHARLES A. BUCHER	HARRIETT L. NUNN
STEPHEN J. BURK	HARRY BROWN PACKARD
CHARLES A. CABLE	WILLIAM F. PALMER
RAY VON CALDWELL	JERRY J. PARISI
DOROTHY U. CARTER	LEWIS T. PARRISH
ELIZABETH CAULEY	ALVAH RAYMOND
JOHN S. COLLIER	JANE E. RIDGEWAY
STEVE COON	JOHN PRESTON ROBINSON
NORMAN L. CRAWFORD	CAROLYN K. SHULER
LEOLA CROSTHWAITE	FREDA SILER
OLIVE I. DAVIS	WILLIAM ARTHUR SMITH
GENE T. DEW	BETTY ANN SNYDER
MARGARET M. EASON	GERALD H. STAHLMAN
JUNIUS BUTLER FRANCIS	GEORGE H. STEELE
JOHN R. GORDON	ELLA MAE TOMLINSON
WALTER B. HARRIS	GERSHOM G. TOMLINSON
ALTICUS HAGOOD HATSELL, JR.	JAMES VALSAME
FRANCES R. HINSON	JOHN I. WALSER
FRANKLIN M. JONES	GROVER B. WILLIAMS
MAGDALEN P. JUSTICE	EUGENE W. WOMBLE

Part Two

GENERAL INFORMATION

THE UNIVERSITY

Historical Sketch of the University of North Carolina

The University of North Carolina, provided for in the state constitution in 1776 and chartered in 1789, laid the cornerstone of its first building in 1793 and opened its doors to students in 1795. It thereby became the first state university in the United States to admit students and send them out into the nation bearing a state university diploma.

The origin of the University may be traced to Section XLI of the North Carolina Constitution of 1776, which declared that "all useful learning shall be duly encouraged and promoted in one or more universities." Sponsored by William Richardson Davie, "father of the University," the University was chartered by the General Assembly through an act passed December 11, 1789, which declared that "in all well regulated Government, it is the indispensable duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education." On December 21, 1789, the General Assembly passed an accompanying act providing for the erection of buildings and for the support of the University through escheats and arrearages due the state.

A special meeting of the Board of Trustees was held at Fayetteville on December 18, 1789, to accept Benjamin Smith's offer of 20,000 acres of land. The first regular meeting of the trustees occurred at Fayetteville on November 15, 1790, as required by the charter. In 1792, a committee headed by Frederick Hargett selected New Hope Chapel, now Chapel Hill, as the site for the University. On October 12, 1793, Davie, as Grand Master of Masons, laid the cornerstone of Old East, the first building. Formal opening exercises were held January 15, 1795, but the first student did not arrive "on the hill" until February 12. For two weeks he was the student body. At the end of the term there were two professors and forty-one students.

The University began its career with a gift of land warrants for 20,000 acres, cash amounting to \$2,706.41, and a loan of \$10,000 (afterward converted into a gift) made by the legislature in 1791 as a result of the interest and leadership of Davie as a member of the

House. By constant struggle and periodic appeals for private benefactions, the institution grew despite general poverty, opposition to taxation, denominational hostility, and sectional controversies between eastern and western North Carolina. The General Assembly made no specific appropriations for its maintenance until 1881, but through the act passed in 1789 it exempted the University from taxation and made it the beneficiary of escheats and arrearages due the state; and in 1867 it appropriated \$7,000 to pay to officers indebtedness incurred during and immediately after the Civil War.

Before 1804, the University was under a succession of "presiding professors." This was not a satisfactory system, and in 1804, Joseph Caldwell was elected the first president. Under Caldwell (1804-1812, 1817-1835), the University grew from a small classical school into a creditable liberal arts college. After 1815, natural sciences were placed on terms of equality with the humanities.

When Caldwell was succeeded by David L. Swain in 1835, the University was widely known as a center of sound scholarship and teaching. During his long tenure (1835-1868), Swain devoted his administration to a program of drawing the institution and the state close together. More emphasis was placed on subjects designed to prepare men for public service—history, law, rhetoric, and public speaking. The ideal of public service overshadowed general culture prior to 1860. During these years, the enrollment of the University reached a peak of 456 (1858), and its alumni included one president of the United States, one vice-president, seven cabinet officials, ten United States senators, forty-one representatives in Congress, fifteen state governors, and many state judges and legislators. From 1814, when a University alumnus first became governor, until the present time, twenty-eight of the forty-seven governors of North Carolina have studied at Chapel Hill.

The University remained open during the Civil War, although most of its faculty and students joined the Confederate armies. Reconstruction, however, closed its doors for five years (1870-1875). Through the efforts of the alumni and Mrs. Cornelia Phillips Spencer, a Chapel Hill resident, the University was reopened in 1875.

By the constitution adopted in 1868 the General Assembly has "power to provide for the election of Trustees of the University of North Carolina in whom, when chosen, shall be vested all the privileges, rights, franchises and endowments thereof in anywise granted to or conferred upon the trustees of said University; and the General Assembly may make such provisions, laws and regulations, from time to time, as may be necessary and expedient for the maintenance and management of said University." The governor of the state is, ex-officio, president of the Board of Trustees.

The same constitution, in connection with "Benefits of the University," further states: "The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition; also, that all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the University."

In 1875 the University reopened with the Reverend Dr. Charles Phillips as Chairman of the Faculty (1875-1876). From 1876 to 1958 the University has had nine presidents, each of whom has contributed to its expansion and progress. Dr. Kemp Plummer Battle (1876-1891) reorganized the University (1876), established the first summer normal session in the South (1877), secured the first regular appropriation for maintenance (1881), and wrote a two-volume history of the University. George Tayloe Winston (1891-1896) "made its campus the dwelling place for dynamic democracy and a citadel against the forces of intolerance and bigotry." Edwin Anderson Alderman (1896-1900) opened its doors to women. During the administration of Francis Preston Venable (1900-1914), the University's financial condition improved, the physical plant was considerably expanded, athletics were encouraged, and creative scholarship was required of the faculty. The brief administration of Edward Kidder Graham (1914-1918) was notable for the enlargement of the University's service to the state, increased resources, and a strengthening of student morale.

In the summer of 1917 the University was the recipient of a legacy from Mrs. Mary Lily Kenan (Flagler) Bingham, which amounted to \$75,000 per year for twenty-one years, after which the principal was given outright. The "Kenan Professorships Fund" thus established is, according to the will, to be "perpetually used . . . for the purpose of paying the salaries of professors" who are to be known as "Kenan Professors," the bequest "being given in the interest of education of the youth of North Carolina." Elevation to a Kenan Professorship, with its corresponding salary increase, made on the basis of distinction in research, in teaching, or in service to the University and the state, is an honor which, since 1918, has been given to fifty-three professors, twenty of whom are still active. Through the years the Kenan Fund has enabled the University to retain on its faculty and to attach to it scholars and teachers of wide reputation and recognized leadership.

The administration of President Harry Woodburn Chase (1919-1930), was marked by rapid physical expansion, and achievement of an international reputation for high standards of scholarship and freedom in research and teaching. Student enrollment increased

rapidly, and maintenance appropriations reached \$894,379 in 1928-1929. Increasing emphasis was shown in social sciences and graduate work. The Graduate School was reorganized in 1920, the University of North Carolina Press was incorporated in 1922, and the Institute for Research in Social Science was organized in 1924. Early in the decade professional schools of engineering and commerce were inaugurated.

Under President Frank Porter Graham (1930-1949) University progress continued. The administrative consolidation of the University of North Carolina, the North Carolina College for Women at Greensboro, and the North Carolina State College of Agriculture and Engineering at Raleigh into the University of North Carolina was effected in 1932. New schools and divisions were added at Chapel Hill—Library Science in 1931, the General College in 1935, and Public Health in 1936. The Institute of Government became a part of the University in 1942, the Communication Center was established in 1945, and the School of Education, discontinued in 1933, was re-instituted in 1948. New departments were added—City and Regional Planning in 1946, Radio in 1947, and Religion in 1947. In 1949, the \$3,000,000 Morehead Building and Planetarium was completed.

The Division of Health Affairs, organized in 1949 for the purpose of integrating the work of all of the health professional schools and the hospital, includes the schools of Medicine, Public Health, Pharmacy, Dentistry, and Nursing; and the North Carolina Memorial Hospital. In 1950, a School of Social Work and a School of Journalism were established and the School of Commerce became the School of Business Administration.

In the development of the consolidation process, Robert Burton House was selected by President Graham and duly confirmed by the Trustees in 1934 to serve as Dean of Administration of the University at Chapel Hill. In 1945, Dean House's title was changed by the Trustees to Chancellor of the University at Chapel Hill and Vice-President of the University of North Carolina.

In World War II the University rendered noteworthy service. Some 20,000 officers and cadets in naval aviation were trained in the United States Navy Pre-Flight School, established in 1942. A naval R. O. T. C. unit, established in 1940, still continues, and a Navy V-12 program was set up. Army and Army Air Corps groups were also trained.

Upon the appointment of President Graham to the Senate of the United States in March, 1949, Controller W. D. Carmichael, Jr., became Acting President; and in February, 1950, Gordon Gray was elected President, assuming office in September, 1950. President Gray's administration saw continued growth of the physical plant of the

University, the opening of the North Carolina Memorial Hospital, the Dental Clinic, the Nurses' home, and a unit of the State Tuberculosis Hospital, The Gravely Sanatorium. Under his guidance, the University opened an F.M. Radio Station and Educational Television Station, both currently in operation.

Upon President Gray's resignation in November, 1955, Harris Purks, Vice-President and Provost, was appointed Acting President. In March, 1956, William Clyde Friday, Secretary of the University, became Acting President upon Mr. Purk's resignation to become Director of Higher Education. In October, 1956, Mr. Friday was elected President.

With the growth of the University has come a need for the re-defining of the relation of the faculty to the University. On November, 6, 1942, the General Faculty authorized the appointment of a committee, under the chairmanship of Professor John M. Booker to study faculty government and prepare a report embodying a uniform set of principles defining the powers, duties, and status of the various divisions which constitute the University. The committee, known as the Committee on University Government, submitted its report in sections during the next eight years. On May 10, 1950, the General Faculty adopted, in its entirety, the new instrument known as "Faculty Legislation on University Government," with the provision that it go into effect in January, 1951.

The chief departure from previous legislative practice in University Government made by the new legislation is in its establishment of a Faculty Council as the governing body. The Council, elected for three-year staggered terms from all the divisions of the University and embracing all ranks of professorship on a proportional basis, has assumed all the legislative functions of the General Faculty except the power to amend the "General Faculty Legislation." Consisting of ex-officio and elected members, the Council meets on the first Friday of each month during the academic year for the transaction of University business. Names of the present Council, together with the dates of their terms, appear on pages 11-13.

Growth of the University at Chapel Hill is depicted in enrollment figures. In the fall of 1920 students in residence numbered some 1,300; in 1930, 2,700; and in the fall of 1941 enrollment reached 4,108—up to then an all-time high. Because of the G. I. Bill and the general pressure for university and college education at the conclusion of the war, enrollment at Chapel Hill in 1948-1949 reached 7,603, the highest figure to date.

With expanded facilities in the Division of Health Affairs, the Library, the School of Business Administration, the Law School, and the Departments of Chemistry and English, the University has already embarked upon a new era of service to the state. With a bright past

and the opportunities for an even more brilliant future, the University of North Carolina looks ahead with confidence and challenge.¹

Organization and Degrees

The University is organized into a General College (which gives the general academic work of the first two years); a College of Arts and Sciences, and twelve schools which have jurisdiction over degrees as shown below:

THE COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts
 Bachelor of Arts in International Studies
 Bachelor of Science in Chemistry
 Bachelor of Science in Geology
 Bachelor of Science in Physics
 Bachelor of Science in Medical Technology
 Bachelor of Science in Bacteriology
 Bachelor of Science in Industrial Relations
 Bachelor of Science in Mathematics
 Bachelor of Science in Dentistry (with the School of Dentistry)
 Bachelor of Arts and Laws (with the School of Law)
 Bachelor of Science in Medicine (with the School of Medicine)
 Bachelor of Music

THE SCHOOL OF BUSINESS ADMINISTRATION

Bachelor of Science in Business Administration
 Bachelor of Science in Business Administration and Laws
 (with the School of Law)

THE SCHOOL OF EDUCATION

Bachelor of Arts in Education
 Bachelor of Science in Science Teaching
 Bachelor of Science in Health Education

THE SCHOOL OF JOURNALISM

Bachelor of Arts in Journalism

THE GRADUATE SCHOOL

Master of Arts
 Master of Arts in Communication
 Master of Arts in Creative Art

1. For more detailed information concerning the University, see Kemp Plummer Battle's two-volume *History of the University of North Carolina*, published in 1907-12; Archibald Henderson's *The Campus of the First State University*, published in 1949; R. D. W. Conner's two-volume *A Documentary History of the University of North Carolina, 1776-1799*, published in 1953, and Louis R. Wilson's *The University of North Carolina 1900-1930*, published in 1957.

Master of Science
Master of Science in Industrial Relations
Master of Science in Library Science
Master of Science in Nursing
Master of Science in Oral Surgery
Master of Science in Orthodontics
Master of Science in Pedodontics
Master of Science in Personnel Administration
Master of Science in Public Health
Master of Science in Recreation Administration
Master of Science in Sanitary Engineering
Master of Business Administration
Master of Education
Master of Music
Master of Public Health
Master of Regional Planning
Master of Social Work
Doctor of Education
Doctor of Public Health
Doctor of Philosophy

THE SCHOOL OF LAW

Bachelor of Laws
Doctor of Law
Bachelor of Arts and Laws
(with the College of Arts and Sciences)
Bachelor of Science in Business Administration and Laws
(with the School of Business Administration)

THE SCHOOL OF SOCIAL WORK

(see above)

DIVISION OF HEALTH AFFAIRS

THE SCHOOL OF MEDICINE

Bachelor of Science in Medicine (see above)
Doctor of Medicine

THE SCHOOL OF PUBLIC HEALTH

Bachelor of Science in Public Health Nursing
Bachelor of Science in Public Health

THE SCHOOL OF DENTISTRY

Bachelor of Science in Dentistry (see above)
Bachelor of Science in Dental Hygiene
Doctor of Dental Surgery

THE SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

THE SCHOOL OF NURSING

Bachelor of Science in Nursing

SUMMER SESSION

Many of the regular courses as described in this catalogue are offered during the summer session with the same credit value. In addition to this, special courses, institutes, and workshops may be offered.

Department of Naval Science

A Naval Reserve Officers Training Corps Unit is maintained at the University of North Carolina under the provisions of Public Law No. 729, which authorizes such units at fifty-two college and universities throughout the United States.

Detailed information on the Naval Reserve Officers Training Corps Unit is in Part IV of this catalogue.

Department of Air Science

With the cooperation of the United States Air Force a course in Air Science has been established at the University. Under this program students may enroll in the Air Force Reserve Officers Training Corps for a four-year course of formal instruction in Air Science.

Detailed information on the Air Force Reserve Officers Training Corps Unit is in Part IV of this catalogue.

ADMISSIONS

Undergraduate students may be admitted to the General College, to the School of Pharmacy, to the College of Arts and Sciences, to the School of Business Administration, to the School of Education, to the School of Journalism, to the Dental Hygiene Program of the School of Dentistry, and to the School of Nursing. *Application blanks for admission may be secured by writing the Director of Admissions.* Applications along with complete records should be submitted at least fifteen days before the opening of the semester in which a student desires to enroll.

WOMEN STUDENTS: Women students are eligible to enter the following schools and curricula as freshmen:

- The School of Nursing
- The School of Pharmacy
- The Dental Hygiene program of the School of Dentistry
- The Medical Technology curriculum in the General College
- The Physical Therapy curriculum in the General College

A woman is eligible to enter the General College as a freshman if she lives in her permanent and *bona fide* home with her parents or husband in Chapel Hill township. Women in all other categories must complete two years of acceptable college work in another accredited college or university in order to become eligible for admission to the junior class of the College of Arts and Sciences, the School of Business Administration, the School of Education, and the School of Journalism. Applications for admission may be secured from the Director of Admissions.

ADMISSIONS TESTS: Each applicant for admission to the freshman class is required to make satisfactory scores on the SCHOLASTIC APTITUDE TESTS of the College Entrance Examination Board. Applicants should write directly to the College Entrance Examination Board, P. O. Box 592, Princeton, New Jersey, requesting an official test application form and a copy of the Bulletin of Information.

AGE: Each applicant must be sixteen years of age before or by the actual date of his registration.

CHARACTER: Each applicant is required to furnish satisfactory evidence of good character.

HEALTH: Each new student, before his arrival at the University, is required to send to the University Physician a medical history properly completed by his physician. The health questionnaire is furnished by the Office of Admissions when the applicant is notified of his or her admission and must be received by the University Physician before the period of his or her first registration. A former student who has been approved for readmission to the University but who has been away from the University for a year or more is required to submit a special medical form (to be supplied by the Office of Admissions) to the University Physician before registration.

ADMISSION TO FRESHMAN STANDING

Formal application for admission to freshman standing in the General College, the School of Nursing, the School of Pharmacy, or the Dental Hygiene Program may be made by a certificate showing graduation or its equivalent from an accredited high school with

fifteen acceptable units and a satisfactory recommendation from the school last attended. For specific requirements for admission to the School of Nursing, to the School of Pharmacy, and to the Dental Hygiene Program, see the catalogues of those schools. Fifteen units are required for admission to the General College and the School of Pharmacy. Of these, ten and one-half must be in academic subjects and must include four in English, two in one foreign language, one and one-half in algebra, one in plane geometry, one in history of the United States, one in a natural science. The remaining four and one-half units are elective. Not more than four units in vocational subjects may be allowed toward admission. Specific foreign language requirements are found in the curricula outlined on pages 139-148. A student may be admitted with a deficiency of one-half unit in algebra, one unit in plane geometry, and two units in foreign language if he presents fifteen other acceptable units.

REMOVING DEFICIENCIES: The algebra deficiency may be removed by passing Mathematics 7, 11, or 15 here, or by a special examination given by the Department of Mathematics. A deficiency in plane geometry may be removed by a special examination given by the Department of Mathematics, or by a course offered by the University's Correspondence Division, or by summer work at an approved high school. A deficiency in a foreign language may be removed by passing the elementary part of the language here. It is very desirable that applicants with deficiencies try to clear these during the summer immediately preceding the fall opening at which they expect to matriculate. All entrance deficiencies must be removed before registration for the fifth semester in residence, not counting the summer session.

A graduate of a non-accredited high school, or a mature student who cannot meet the formal requirements, may qualify for admission by a special entrance examination.

The right is reserved to reject the application of any applicant who ranked in the lower half of his graduating class in high school. For cause the Committee on Admissions may disapprove any application for admission.

ADMISSION OF NON-RESIDENTS: An applicant who is a non-resident of North Carolina may be required to supplement his application and transcript with a personal interview with a representative of the University and other information requested by the Committee on Admissions.

ADMISSION TO THE COLLEGE OF ARTS AND SCIENCES AND TO THE
SCHOOLS OF BUSINESS ADMINISTRATION, EDUCATION, AND JOURNALISM

Admission to the College of Arts and Sciences and to the schools of Business Administration, Education, and Journalism is based upon the satisfactory completion of the first two years of college work given in the General College of this University (pages 133-148) or its equivalent certified by another institution of recognized academic standing.

Satisfactory completion of the first two years of college work is interpreted to mean that a C average or better is achieved, except that for the School of Business Administration, there is the further requirement that a C average or better is required on all Business Administration and Economics courses.

ADMISSION TO ADVANCED STANDING

A person seeking admission to the University on the basis of work at another recognized college or university is required to furnish a properly certified transcript of his record at that college or university and to make application for admission at least fifteen days before the opening of the term in which the applicant desires to enroll. It is the responsibility of the person seeking admission to the University as a transfer to request the proper official at the institutions last attended to send to the Director of Admissions transcripts of his previous records. Application blanks may be secured by writing to the Director of Admissions. Each transfer student must submit a fee of \$10.00. This fee is not refundable. However, the fee will be applied to the student's first registration expense if he is accepted and registers at the University.

Each transferred record will be evaluated in terms of requirements here. Not more than sixty-four semester hours, exclusive of hygiene and physical education, may be transferred from a junior college. A transferring student must have at least a C average on the work taken at other institutions to be considered for admission to this University. A course passed with the lowest passing grade at another institution does not give hours credit toward graduation, but may be used to satisfy a subject requirement in the University. No credit is allowed for work done at non-standard or non-accredited colleges and universities unless a substantiating examination is passed here in each subject for which credit is sought. Any record submitted for advanced standing may be rejected in whole or in part, and validating examinations may be required in any or all subjects.

Applicants who have ever attended for any period of time a college or university are required to present properly certified transcripts or records of such attendance. It will be considered a violation of the honor code if in his application for admission any applicant makes a

false statement with reference to previous college or university attendance in order to gain admission on the basis of a high school record alone.

The University is not an accrediting agency. It accepts the accreditation of the North Carolina State Department of Education in so far as high and preparatory schools and colleges (junior colleges or four-year institutions) are concerned. Outside of North Carolina the University depends upon the accreditation of the departments of education of the various states, upon the accreditation of the state universities or institutions of comparable rank, and upon the accreditation of regional accrediting agencies.

HONORS PROGRAMS AND ADVANCED WORK FOR SUPERIOR STUDENTS

For students of unusual promise and achievement the University offers four special opportunities. (1) Incoming freshmen are assigned to courses and sections according to ability and preparation; in some fields they can begin at the sophomore level, receiving automatic credit for omitted freshman work. (See "Credit by Examination," pp. 136-137.) (2) Advanced sections of several freshman and sophomore courses are open to qualified students; the work is more sophisticated, more extensive, and more demanding than in the regular sections. (See "Advanced Sections for General College Honor Students," pp. 138-139.) (3) About fifty qualified freshmen are invited to enroll in the Freshman Honor Student Program, taking advanced sections of three courses as a group and sharing in a Freshman Colloquium. (See "Advanced Sections for General College Honor Students," pp. 138-139.) (4) Outstanding juniors and seniors in several departments may enroll in honors work and undergraduate seminars. (See the descriptions of these honors programs, pp. 153-158.)

These arrangements for superior students are being expanded with the aid of a five-year grant from the Carnegie Foundation amounting to \$100,000. A detailed brochure may be obtained from the Secretary of the Chancellor's Committee on Superior Students, General College.

ADMISSION TO SPECIAL STATUS

Persons twenty-one years of age or over who cannot meet the requirements for admission as degree candidates, or others desiring to improve themselves professionally, may be admitted as special students, with the approval of the dean of the college concerned, to pursue a non-degree program. Application is made through the Director of Admissions, and satisfactory evidence of the student's ability to profit from the program desired must be furnished. The applicant should have an interview with the dean having supervision over the work to be taken.

Special students are on probation. Anyone enrolled in the University as a special student is required to carry at least fifteen hours of work unless he has permission of the dean concerned to carry less. They are required to pass all of their courses in order to be eligible to continue in the University.

ADMISSION TO GRADUATE AND PROFESSIONAL SCHOOLS AND THE SUMMER SESSION

For the requirements for admission to the graduate and professional schools, the applicant should address his inquiry to the dean of the school in which he desires to enroll or consult the special catalogue of that school. For admission to the summer session only, the applicant should write to the Director of the Summer Session.

The College Year

The college year is divided into fall and spring semesters of approximately seventeen weeks each, and a summer session divided into two terms of about six weeks each. Currently the School of Medicine and the School of Dentistry are operating on the quarter system. There are recesses at Thanksgiving, Christmas, and Easter.

Religious Influence

The interest of the University in the religious life of students is expressed in the encouragement and support which it extends to the University YMCA and YWCA. These associations are campus-centered groups which seek to meet the religious interests and needs of the student body. They are staffed by theologically trained persons.

Just as important to the religious life of students are the various religious foundations which represent the major Protestant denominations, the Roman Catholic Church, and the Jewish faith. These foundations, located on the edge of the campus, are directed, for the most part, by ordained clergy who are sent to work with students and faculty by state and national religious groups. The churches of Chapel Hill also provide an effective ministry to the University community through their ministry of worship and religious education.

Physical Education

A thorough physical examination by the University Physician is required of all applicants before the time of his first registration. All students are classified on the basis of the examination and an effort is made to adapt the program to the individual's particular needs.

Physical education is required of all undergraduate men two periods each week for the first two years; and of all undergraduate

women two periods each week for the first two years. A two-semester-hour course in hygiene is required of all freshmen. Upperclassmen are offered the opportunity to major in the field of health and physical education.

Athletic sports and all kinds of physical activity are encouraged. The program of intercollegiate athletics includes a great variety of seasonal competitive games, with the idea of promoting maximum participation by members of the student body.

In addition to intercollegiate athletics the University fosters an unusually extensive program of intramural athletics. During the 1957-1958 school year the program involved 65 per cent of the male student body. Every effort is made to provide each interested student with the opportunity to participate in a healthful form of competition with his fellows and to learn teamwork and good sportsmanship.

Medical Attention

In order to provide proper medical attention for the student, the University employs five full-time physicians and maintains a well-appointed infirmary, with a modern X-ray unit under the direction of a full-time technician, and with a laboratory for diagnostic purposes under the direction of two full-time technicians. The infirmary is under the immediate supervision of the University Physician and is provided with ten experienced nurses who are under the general supervision of a head nurse. At the discretion of his attending physician a student may be admitted to its wards, and for such services as may be rendered by the staff no charges are made. But the student will be required to pay any additional service (consultation, special nurses, and operations), recommended by the attending physician and approved by the parent or guardian.

THE DIVISION OF STUDENT AFFAIRS

The Division of Student Affairs was approved by the Board of Trustees on July 1, 1954. It is the purpose of the Division to coordinate and promote University services and organizations affecting the welfare of students—that is, University relationships with students other than formal instruction.

The Dean of Student Affairs is the administrative head of the Division. It comprises the following offices and activities: Admissions; Records and Registration; Student Financial Aid, including Scholarships; Student Activities; the Student Union; the Student Health Service; the Testing Service; special counseling services, including the Offices of Adviser to Foreign Students and Adviser to Veterans; the Office of the Dean of Women; and Housing.

Administrative Officers of Student Affairs

- FREDERICK HENRY WEAVER, A.M., *Dean of Student Affairs*
 SAMUEL HAYS MAGILL, B.D., *Assistant Dean of Student Affairs*
 RAYMOND LEWIS JEFFERIES, JR., B.S., *Assistant to the Dean of Student Affairs*
 KATHERINE KENNEDY CARMICHAEL, Ph.D., *Dean of Women*
 MARTHA DECKER DEBERRY, B.S., *Assistant to the Dean of Women*
 LUANNE THORNTON, A.B., *Personnel Adviser to Women*
 JAMES PEARCE CARSE, B.D., *Chairman, YMCA-YWCA Staff*
 ANNE E. QUEEN, B.D., *YMCA-YWCA Staff*
 CLAUDE C. SHOTTS, B.D., *YMCA-YWCA Staff*
 HOWARD DOUGLAS HENRY, B.S., *Director, Graham Memorial Student Union*
 CHARLES CECIL BERNARD, A.M., *Acting Director of Admissions*
 GEORGE EDWARD FRENCH, A.B., *Assistant to the Director of Admissions*
 ALMONTE CHARLES HOWELL, Ph.D., *Adviser to Foreign Students*
 EDWARD MCGOWAN HEDGPETH, M.D., *University Physician*
 TYNDALL PEACOCK HARRIS, M.D., *Associate University Physician*
 ROBERT BOYD LINDSAY, M.D., *Associate University Physician*
 WILLIAM GARDNER MORGAN, M.D., *Associate University Physician*
 JAMES ALEXANDER TAYLOR, M.D., *Associate University Physician*
 JAMES E. WADSWORTH, A.M., *Director of Housing*
 JOSEPH M. GALLOWAY, B.S., *Director, University Placement Service*
 MARY BARBER HOLMES, A.M., *Assistant Director, University Placement Service*
 EDWIN SIDNEY LANIER, *Director, Central Office of Records and Director of Student Aid*
 RAYMOND E. STRONG, A.B., *Assistant Director, Central Office of Records*
 ELIZABETH MILLNER WORTH, A.B., *Assistant Director of Student Aid*
 WILLIAM DECATUR PERRY, Ed.D., *Director, University Testing Service*
 JAMES W. LITTLE, M.S., *Associate Director, University Testing Service*
 FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Assistant Adviser to Foreign Students*

Administrative Board of Student Affairs

The General Faculty in its meeting of May 1, 1953, approved an amendment to the Faculty Legislation authorizing the appointment of an Administrative Board of Student Affairs. The Board is composed of six members of the faculty appointed by the Chancellor. The Dean of Student Affairs presides over the meetings.

The term of office for the members of the Board is five years. Members may not succeed themselves immediately.

The function of the Board is: (1) to formulate, together with the Dean of Student Affairs, student welfare policies; (2) to advise the Dean of Student Affairs in administrative matters; (3) to perform other duties that may be delegated to it.

The members of the Board, with expiration dates of terms, are:

FREDERICK HENRY WEAVER, *Chairman*

- | | |
|----------------------------------|---------------------------|
| FREDERIC NEILL CLEAVELAND (1958) | WALTER SPEARMAN (1961) |
| EDWARD WILLIAM NOLAND (1959) | RUTH DALRYMPLE (1962) |
| HARRY KITSUN RUSSELL (1960) | GEORGE DIAL PENICK (1962) |

STUDENT GOVERNMENT

No detailed code of rules is designed to govern student behavior. High standards of morality under the Honor System and of gentlemanly conduct under the Campus Code constitute the core of student responsibility and policy. The student councils, consisting entirely of student members, are the responsible courts in which violators of the Honor System and the Campus Code are tried. If a student is found guilty of violating the Honor System or the Campus Code, he may be suspended from the University for an indefinite period. Indefinite suspension is the established penalty, although there has been some variation in sentences from one student generation to another. Among the offenses traditionally requiring suspension are cheating, stealing, lying, drunkenness, and gambling.

Officers of the Student Body, 1958-1959

DONALD A. FURTADO	<i>President of the Student Body</i>
RALPH W. CUMMINGS, JR.	<i>Vice President of the Student Body</i>
PADDY SUE WALL	<i>Secretary of the Student Body</i>
CHARLES D. GRAY, III	<i>Treasurer of the Student Body</i>

The student body of the University is self-governing, its functions being both disciplinary and administrative. These functions are exercised by executive, legislative, and judicial branches of representative government under a student constitution.

The executive department consists of the President of the Student Body, assisted by the Vice-President, the Secretary, and the Treasurer, all elected by the student body at large.

Legislative power is vested in:

Student Legislature. This body is the legislative branch of student government and is composed of fifty members elected annually. In addition to enacting nearly all the rules governing students here at the University, it has the responsibility for the annual budget of operations, for the supervision of certain committees, and for the proper performance of many constitutional duties.

Women's Residence Council. Composed of representatives elected by the women students, the Residence Council is responsible for drafting rules for women students and for coordinating women's activities.

The judiciary comprises the Student Council, the Men's Council, the Women's Council, and special councils for dormitories, fraternities and professional schools.

Student Council Members

JAMES MONROE LONG, *Chairman*

LEMUEL SHOWELL BLADES, III	ALTON EVERETTE JAMES	JOHN BRUCE OWENS
ROBERT HANES BORDEN	ROSALIND TOY JOHNSON	ERIC RUSSELL ROPER
DAVID SAMUEL EVANS	JOHN GAMBRELL LEE	CATHERINE JEAN STEWART
RADFORD GARRETT FOLGER	DONALD WOFFORD MILLEN	

Men's Council Members

HUGH LESTER PATTERSON, *Chairman*

WAYNE STATON BISHOP

WADE HAMPTON LEFLER, JR.

GARY EDWARD COOPER

HOWARD HOLDERNESS, JR.

ROBERT WHITWORTH CUNNINGHAM

JAMES LEE SMALLEY, JR.

Women's Council Members

NANCY ANN ADAMS, *Chairman*

MARY LOUISE CRUMBLEY

PADDY SUE WALL

LUCY ANN FORSYTH

LILLIAN SHANNONHOUSE WELLER

VIRGINIA ELAINE PEARCE

The following three councils serve as governing bodies for specific campus groups:

Interdormitory Council. The functions of this agency are the regulation of living conditions in the men's dormitories and the maintenance of good living standards by dormitory residents.

Interfraternity Council. As the governing body for social fraternities in the University, this council attempts to further the ideals of fraternities through the unification of programs and action of the various chapters on the campus.

Panhellenic Council. This group is composed of representatives of the six campus national fraternities for women and the stray Greek organization. A clearing house for common problems and the regulating group for rush week, the Council also plans and directs various projects throughout the year.

TESTING SERVICE

The facilities of the University Testing Service are available without charge to all University students to assist them in selecting an appropriate academic major and ultimate vocation. Students who request this service receive a comprehensive series of tests and are interviewed by experienced vocational counselors. An occupational information library is maintained for student use. Students who are having academic difficulties, who are in doubt as to a suitable academic major, or who have been unable to make satisfactory long-range vocational plans may find these services of particular value. Additional information on this service may be found in Part V of this catalogue.

PLACEMENT SERVICE

Through its placement facilities the University aids students and alumni in solving the problem of postgraduate employment. Registration is voluntary, and there is no charge for the service.

The Placement Service, while primarily concerned with employment opportunities for students and alumni in business, industry, and government, serves as a coordinating agency for all campus recruitment. The professional schools assist directly in the placement of their graduates.

Students should register for placement early in their senior year even though they have a job or may enter military service immediately following graduation. Registration with the Placement Service assures a complete and permanent personnel file, including a summary of college activities and confidential ratings from faculty members, which is available to employers upon request.

In addition, student-employer interviews are arranged on the campus throughout the year, and occupational information and company literature are available for student use. The Placement Service also makes available information regarding postgraduate scholarships and temporary summer employment.

For prospective employers the Placement Service arranges interviews with students and faculty members, supplies a personnel file for students interviewed or recommended, and attempts to answer inquiries about unregistered alumni.

ADVISERS TO FOREIGN STUDENTS

Two Advisers to Foreign Students, A. C. Howell and F. Carlyle Shepard, aid in solving problems peculiar to students from other lands. All questions relating to foreign students are referred to them.

UNIVERSITY ORGANIZATIONS

The organizations listed below offer opportunities for interested students to participate in activities which appeal to them and to become acquainted with others in the University having similar interests. Further information about them, and other organizations not listed, may be secured from the Dean of Student Affairs and the officers of the organizations.

Religious Organizations

The Young Men's Christian Association, organized at the University in 1859, is a fellowship of Carolina students, faculty, and friends seeking to discover and practice the Christian way of life in all their relationships and activities. The program and service of the Association are developed by its active members on the basis of student needs. Membership is open to all men.

The Young Women's Christian Association is the religious, social, and welfare agency for women students. Its purpose is to unite students in a desire to realize a full and creative college life. Its office is in the YMCA Building.

The Campus Christian Council consists of student representatives of each Protestant student fellowship at the University. It seeks to plan those activities in which all the denominations can cooperate and to foster a spirit of unity among these groups.

Student religious groups presently represented on the campus are Presbyterian, Methodist, Baptist, Episcopalian, Congregational-Christian, Lutheran, Roman Catholic, Jewish.

Debate and Discussion

The Senate of the Dialectic Literary Society and *The General Assembly of the Philanthropic Literary Society*, founded 1795, offer opportunity to participate in debates and discussion and to learn parliamentary procedure.

The Debate Council is an outgrowth of the debating societies on the campus. It is composed of students who are selected by the forensic squad, one member for each of the debating societies, and two faculty advisers.

The Carolina Forum cooperates with other organizations in procuring, coordinating, and presenting to the campus speakers of national and international note in government, labor, industry, education, etc.

Learned Societies

The Elisha Mitchell Scientific Society, an organization of students and faculty members interested in science, holds monthly meetings for the presentation and discussion of papers and maintains a journal which is widely circulated.

The Philological Club meets monthly during the academic year for presentation of papers dealing with languages and literature in all fields. A journal founded by the club is widely circulated.

Music and Dramatic Art

Musical Organizations center their activities in Hill Hall, whose auditorium seats eight hundred and contains a four-manual concert organ. Hill Hall houses a collection of records, scores, books on music, and phonographs for audition purposes. Among organizations open to students and faculty are:

Glee Clubs for Men and Women
Symphony Orchestra
University Band
Chapel Hill Choral Club

The Carolina Playmakers, the University dramatic organization affords opportunity to students for writing, producing, and acting. For further information see Part V of this catalogue.

Sports and Sportsmanship

Intramural Activities provide a program of competitive sports and recreational activities for students and faculty members. Competition is conducted within the fraternity division and the dormitory-independent division. A play-off between the division champions determines the University championship. In addition, badminton, fencing, and dance clubs are sponsored by the Intramural Department.

The Women's Athletic Association provides for every woman student opportunities for participation in recreational activities and tournaments. The program is organized and conducted by a cabinet of elected officers, appointed sorority and dormitory representatives, and appointed sports managers. Membership is open to all women students.

The University Club seeks to promote and maintain good sportsmanship in all University events and contests by sponsoring pep rallies, entertaining visiting teams, and encourage college spirit.

Foreign Languages and Customs

Foreign Language Clubs, including *Le Cercle Français*, *El Club Español*, and *Delta Phi Alpha* (honorary German fraternity), meet regularly for the purpose of developing facility in understanding and speaking the foreign languages and of discussing topics relating to the life, customs, and literature of the countries where the languages are native.

The Cosmopolitan Club is an organization for the foreign students on the campus. Its purpose is to provide a means by which these students can join together in social activities and various educational trips and programs.

Social

The Carolina Women's Council, composed of representatives of dormitory and town groups of non-sorority women students, endeavors to provide opportunities for the development of social, civic, and intellectual interests among the women of the University who do not belong to sororities.

The Chapel Hill Club is open to Chapel Hill residents. It provides an organization for local coeds and is aimed toward aiding the freshman women in the University.

The University Dance Committee authorizes and supervises University dances. It is composed of representatives from several campus organizations.

HONOR AND RECOGNITION SOCIETIES

Phi Beta Kappa, national scholarship fraternity founded at the College of William and Mary in 1776, has its Alpha of North Carolina Chapter here, established in 1904. Juniors and seniors who meet the requirements in scholastic achievement and character are invited to become members.

Sigma Xi, founded at Cornell University in 1886 for the purpose of encouraging original investigation in science, has a chapter here established in 1920. Membership is contingent upon evidence of excellence in research in one of the sciences. Advanced undergraduates and graduates who show promise in scientific research may be elected to associate membership, to be promoted to full membership later if deemed worthy.

Phi Eta Sigma, national freshman scholarship fraternity for men, was founded at the University of Illinois in 1923 to encourage and reward high scholastic attainment and thus promote good study habits early in college life. The chapter here was established in 1947. The freshman men who make at least half A's and the rest B's their first semester or their first two semesters are eligible for membership.

Beta Gamma Sigma, national scholastic honor society for students in commerce and business administration, was founded in 1913 by the union of three local societies at the universities of Wisconsin, California, and Illinois. Its Alpha of North Carolina Chapter was established here in 1933. Juniors and seniors in the School of Business Administration who achieve sufficiently high scholastic standing become eligible for membership.

Rho Chi was founded at the University of Michigan in 1922 to encourage high scholastic achievement and fellowship among students in pharmacy. Its Xi Chapter was established here in 1929, and students in the School of Pharmacy who qualify in scholarship, character, personality, and leadership are elected to membership.

Order of the Coif, honor society for men in schools of law, was founded at the University of Illinois in 1902. Its chapter here was established in 1928. Students who have sufficiently high scholastic standing at graduation in the School of Law are elected to membership.

Order of the Golden Fleece, senior honor society for men, was founded here in 1903. It selects each year from the men in the junior class, or above, those considered to possess the highest qualifications in character, ability, achievement, and leadership.

The Valkyries, senior honorary organization for women, recognizes and honors the women students most outstanding in character and achievement, the number selected each year not exceeding 2 per cent of the women enrolled. It was established here in 1941.

Order of the Grail was founded here in 1920 as an honorary service organization. Each year thirteen outstanding rising junior and senior men are honored with membership, the number almost evenly divided between fraternity and non-fraternity men. Its purpose is to help provide social life to all students by sponsoring informal script dances, to award scholarships to needy and deserving students, and to serve the campus generally.

Order of the Old Well was founded here in 1949 for the purpose of recognizing and honoring campus service and accomplishment on a point basis. Whereas the Golden Fleece, the Valkyries, and the Grail select their honorees on an intangible appraisal basis, the Old Well honors those juniors and seniors, both men and women, who achieve at least a certain minimum number of points—all activities, such as scholarship, student government, athletics, forensics, publications, dramatics, music, being evaluated by a proper distribution of points.

Amphoterotheren, an honorary organization of thirteen junior and senior men, was founded here in 1912 for the purpose of training in extemporaneous speaking. It became temporarily inactive in 1947 and was reactivated during the winter quarter of 1952.

Alpha Epsilon Delta, pre-medical honor society, was founded at the University of Alabama in 1926. Its Beta of North Carolina Chapter was established here in 1936. Its object is to encourage excellence in scholarship and to promote cooperation and common interests among the pre-medical students.

Alpha Kappa Delta, sociology recognition society, was founded at the University of Southern California in 1920 for the purpose of promoting scholarship and research among the advanced students in sociology. The Alpha of North Carolina Chapter was established here in 1931.

Alpha Phi Omega, national campus service fraternity, was founded at Lafayette College in 1925. Its purpose is to bind together college men in the fellowship of the Scout Oath and Law, to develop friendship, and to promote service to humanity. The Rho Chapter was established here in 1930.

Delta Phi Alpha, recognition society for students of German, was founded at Wofford College in 1929, its Beta Rho Chapter being established here in 1938. It aims to promote interest in the language, literature, and culture of German-speaking people.

Kappa Tau Alpha, national society dedicated to the recognition and promotion of scholarship in the field of journalism, founded at the University of Missouri in 1910, granted a charter to the University of North Carolina at Chapel Hill on May 17, 1955. The society elects approximately ten per cent of the journalism student body to membership. Eligibility is determined entirely on academic standing in journalism courses and in all other courses taken on the Chapel Hill campus.

Phi Alpha Theta, national honor society for recognizing excellence in the study of history, was founded at the University of Arkansas in 1921. Eligibility for membership, both on the undergraduate and graduate levels, is based on superior scholastic achievement. The Delta Pi Chapter was established here in 1952.

Pi Delta Phi, recognition society for men and women students who have attained honor in the study of French, was founded at the University of California in Berkeley in 1906 for the purpose of promoting the study of French and French culture in America. Its Beta Alpha Chapter was established here in 1952.

Pi Mu Epsilon, recognition society for students of mathematics, grew out of the Mathematics Club at Syracuse University. It was incorporated under the laws of New York in 1914. Its North Carolina Beta Chapter was established here in 1948. The purpose of the society is to promote interest in the study of undergraduate and graduate mathematics.

Pi Sigma Alpha, a national honor society for students in political science, established a chapter here in 1949. It was founded at the University of Texas in 1920. Eligibility for membership is based on high scholastic achievement in the subject.

Scabbard and Blade, national military society, has as its qualifications for membership good scholarship, leadership, initiative, and character. The organization was founded at the University of Wisconsin in 1904, the chapter was established here in 1949.

Sigma Gamma Epsilon, national honor society for students in the earth sciences, was founded at the University of Kansas in 1915. High scholarship and active interest in one of these fields are requirements for membership. The Alpha Alpha Chapter of the fraternity was established here in 1931.

STUDENT PUBLICATIONS

The Publications Board of the University is the publishing agency for two student publications—*The Daily Tar Heel* and *The Yackety Yack*. It is composed of two faculty members appointed by the Chancellor, four student members elected by the student body, and a representative of the Student Legislature. The Board controls the financial policies of the publications under its jurisdiction. These publications are financed by appropriations from student fees and by receipts from advertising. The editor of each is elected by the student body, and he appoints his staff.

The Daily Tar Heel, published since 1893, is the student newspaper. It is issued six times a week. The paper is edited and prepared by students.

The Yackety Yack is the college yearbook album.

The Carolina Quarterly is an independent student publication. A faculty committee composed of five professors in the field of the humanities serves as a consulting board and selects the editor and business manager each year. The *Quarterly* appears each December, March, and May.

EXPENSES

The University reserves the right to make, with the approval of the proper authorities, changes in tuition and other fees at any time.

Tuition and Other Fees for Each Semester

Each student whose bona fide residence has not been established in North Carolina for at least the six months immediately preceding his first registration in the University must pay a higher rate of tuition than that paid by a legal resident of North Carolina. The residence

of a minor is that of his parents or guardian. The residence of an adult remains with his parents unless he has independently set up one of his own.

Bona fide residence in North Carolina means that the student is not in the state primarily to attend the University and that his status as a resident has not been set up merely as a technical bar to the higher tuition charge. Mere ownership of property or payment of taxes apart from residence does not qualify one as a resident, nor may a student qualify by living in North Carolina the six months immediately preceding his first registration unless he continues so to live during the whole period of his stay at the University.

Students are presumed to know their correct residence status and to state the facts concerning it truthfully on their application and registration blanks. Students in doubt should state their cases in writing to the Chancellor, preferably in advance of registration. Students who misrepresent the facts of their residence status for the purpose of defrauding the University will be dealt with as are all other violators of the Honor System.

The tuition rates for students registered in the General College, College of Arts and Sciences, School of Education, School of Nursing, Curriculum for Dental Hygiene, School of Business Administration, School of Journalism, School of Social Work, and Graduate School are as follows:

Residents of North Carolina, each semester	\$ 75.00
Non-resident of North Carolina, each semester	250.00

In addition to the tuition charge, the fees payable at the beginning of each semester are listed as follows:

FEES:	<i>General College, Arts & Sciences, Journalism, Nursing, Education</i>	<i>Business Administration</i>	<i>Social Work and Graduate</i>	<i>Dental Hygiene</i>
Matriculation	\$36.75	\$36.75	\$36.75	\$36.75
Student Activities	9.00	9.00	7.28	9.00
Materials		3.00		
Dental Society				
Laundry Deposit	20.00	20.00	20.00	20.00

The matriculation fee covers use of physical education facilities, infirmary, library, cost of registration, and membership in the Athletic Association. Membership in the Athletic Association entitles students to become members of intercollegiate athletic squads with supplies and equipment furnished. Members are also entitled to the use of facilities, both as participant and spectator, limited by the capacity of the facility. The student activities fee covers general campus activities supported by all regular students. The reading and materials

fee applies only to students registered in the School of Business Administration, and the Dental Society fee only to students registered in Dental Hygiene.

Laundry Deposit

Use of the University Laundry is optional. Students desiring this service are required to make an initial deposit of \$20.00 at the beginning of each semester, and an additional deposit if the first is exhausted. Any amount not used will be refunded at the close of the spring semester.

Laboratory Fees

Each student taking a laboratory course must pay, in addition to tuition, a fee to help cover the cost of conducting laboratory experiments. The courses carrying laboratory or materials fees and the amounts are as follows:

Anatomy 41	\$ 3.00
Anatomy 101, 102, 103, 104, 106	5.00
Anatomy 105ab, 107ab	15.00
Anthropology 41, 74, 122, 126, 127, 128, 130, 132, 220, 229	1.00
Anthropology 79	3.00
Art 44, 46, 48, 49, 50, 55, 81, 84, 86, 150	12.00
Art 85, 108, 110, 111, 112	15.00
Art 82	20.00
Art 105, 106, 120, 121	22.50
Art 240, 241, 242, 243	30.00
Astronomy 31	6.00
Bacteriology 51, 55, 151	4.00
Bacteriology 106	5.00
Bacteriology 112	6.00
Bacteriology 101, 104, 132	10.00
Bacteriology 120	12.00
Bacteriology 115, 301	10.00
Biochemistry 7, 8	5.00
Biochemistry 103, 104, 204, 301, 302	15.00
Biochemistry 101, 201	10.00
Botany 1	2.00
Botany 41, 42, 43, 101, 102, 103, 106, 114, 151, 155, 211, 212, 261, 310, 320, 330, 350, 360 (4 hours)	4.00
Botany 380, 390	4.00
Botany 45, 104, 105, 221, 222	6.00
Botany 107	8.00
Business Administration 7150
Business Administration 134, 135, 153, 158, 159, 173, 175, 274	3.00
Business Administration 133	6.00
Chemistry 4, 5	3.00
Chemistry 11, 12	4.50
Chemistry 83	5.00
Chemistry 51	7.50
Chemistry 31, 101, 145, 146, 147, 154, 163, 166, 167, 173	10.00
Chemistry 21, 43, 44	11.50

Chemistry 61, 62, 181, 182, 267, 301, 341, 351, 361, 381	\$ 15.00
Composition Condition Laboratory	10.00
Dramatic Art 40	1.50
Dramatic Art 61, 63, 64, 65, 66, 200, 202	2.00
Dramatic Art 57, 155, 156, 201	3.00
Dramatic Art 76, 77, 87	4.00
Economics 70, 171, 172, 173	3.00
Education 135	2.00
Education 62, 64, 78, 79, 80, 82, 84s, 84f, 86, 88, 90, 92, 94, 96	20.00
English 40, 41, 44, 55, 56	1.50
Geography 131, 132, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 181, 182	2.00
Geography 38	3.00
Geography 164	3.50
Geography 117, 171	5.00
Geology 127, 271, 272	2.00
Geology 111, 115, 130, 131, 167	3.00
Geology 1, 41, 42, 122, 123, 166, 224, 225, 265, 281, 282, 284	3.50
Geology 103, 104, 105, 106, 107, 108, 109, 110, 144, 145, 168, 169, 221, 222, 241, 242, 244, 245, 247, 248, 261, 262, 285, 286, 288, 289	5.00
Geology 101, 117, 147	10.00
German 101x, 102x	15.00
History 175	1.00
Journalism 53, 54, 55, 57, 59, 62, 63, 67, 73	2.00
Journalism 80	5.00
Mathematics 41	2.00
Mathematics 51	4.00
Music 4, 41, 55, 56	1.00
Music 78, 79	20.00
Nursing 10, 20	10.00
Nursing 30, 40	3.00
Nursing 35	6.00
Nursing 36, 65, 70	1.00
Nursing 50, 60, 80, 81, 86	2.00
Nursing 90	5.00
Nursing 91	25.00
Pharmaceutical Chemistry 181, 282	1.00
Pharmaceutical Chemistry 64	5.00
Pharmaceutical Chemistry 61, 62, 171, 172, 241b, 242b, 271b, 272b, 391	15.00
Pharmacognosy 45	6.00
Pharmacognosy 245, 246	10.00
Pharmacognosy 391	15.00
Pharmacology 55	5.00
Pharmacology 171	15.00
Pharmacy 15	5.00
Pharmacy 35	7.50
Pharmacy 36, 71, 72, 162, 163	10.00
Pharmacy 91, 92	11.25
Pharmacy 191, 192, 251, 252, 271, 272, 391	15.00
Physical Education 221	5.00
Physics 31	6.00
Physics 45, 104, 105, 106, 107, 108, 141	4.50
Physics 91, 92, 280	5.00
Physics 20, 24, 25, 34, 35	6.00
Physics 181, 182	10.00

Physiology 51, 141, 301, 302, 303	\$ 5.00
Physiology 106	7.50
Physiology 142, 201, 202, 211, 212	10.00
Political Science (all courses \$1.00 except those numbered over 300)	
Psychology 130, 131, 132, 225, 226, 230, 232, 236, 237	2.00
Psychology 26, 27, 106, 121, 122, 151, 181, 201, 202, 203, 205, 341	3.00
Public Health 121, 123, 124, 135, 281	3.00
Public Health 261	3.50
Public Health 131, 233, 234, 262, 272, 273	4.00
Public Health 19, 163, 264	5.00
Public Health 232	8.00
Public Health 16, 110, 361, 371, 381	10.00
Public Health 332	15.00
Public Health 193, 214a	300.00
Public Health 17, 103ab, 165	20.00
Public Health 214b, 216, 222, 244, 255	300.00
Radio 76, 77, 87	4.00
Radio 45, 282	3.00
Radio 261, 262, 263, 267, 268, 271, 281	5.00
Social Science 1, 2	1.50
Social Work 215, 216, 217	25.00
Social Work 218-219, 221-222, 224-225, 227-228	75.00
Sociology 51, 52, 75, 122, 128, 168, 181, 186, 190, 198, 208, 218, 220, 229, 274	1.00
Sociology 191, 197, 253	2.00
Zoology 101, 102	5.00
Zoology 1, 146	3.00
Zoology 41, 42, 109, 110, 111, 112, 206, 207, 212, 213, 215, 222	7.50
Zoology 330, 331, 332, 333, 335, 336, 337, 338, 339, 340 (per 3 hours)	5.00
Zoology 104, 105, 120, 220	10.00
Zoology 103	12.50

Laboratory Breakage Deposits

Students taking certain courses in chemistry, pharmacy, and medicine are required to make a deposit to cover breakage of equipment, use of more than normal expendable supplies and materials, and depreciation on unusual equipment. These deposits range from \$7.00 to \$15.00. The unused portion of the deposit is refunded at the end of the semester.

Application Fee

Each application for admission to advanced standing must be accompanied by a transcript evaluation fee of \$10.00. This fee is not refundable. If the applicant is accepted and enrolls as a student, the fee will be applied against his bill at his first registration.

Charges for Credit Obtained by Examination

Students who take examinations for credit for advanced standing will be charged \$1.50 for each semester hour of credit secured by examination.

Delayed Registration

Any student registering later than the time appointed for his registration must pay an additional fee of \$5.00. No appeal from the late registration charge will be granted, unless the delay results from circumstances clearly beyond the student's control. Such an appeal must be made in writing to the Chancellor, must show justification for the delay in registering, and must bear the approval of the dean of the division of the University in which the applicant is enrolled.

Transcripts of Record

One transcript will be furnished without charge. Additional transcripts will be furnished upon payment of \$1.00 for each copy.

Graduation Fee

The graduation fee is \$10.00, payable when application for degree is made. A cap and gown rental fee of \$3.75 is made to recipients of bachelors' degrees, \$7.00 to recipients of masters' degrees, and \$7.00 to recipients of doctors' degrees.

Refunds

A student withdrawing within the first week of any semester is charged only a registration fee of \$7.00. If he withdraws after the first week, his bill will be prorated on the basis of one-tenth for each week (or part of a week) he attends. No refunds will be made after the ninth week of any semester.

Payment of Bills

Bills for the fall semester are payable at the time of registration. Bills for the spring semester are payable at the Cashier's office on the first class day of the semester, and thereafter according to a schedule announced. Failure to pay or make the proper arrangement for payment results in the assessment of an extra fee of \$5.00.

ROOM AND BOARD

Dormitory Accommodations for Men

Accommodations for approximately 3,600 men students are available in the University dormitories. In addition, many students find places for themselves in private homes or fraternity houses.

All rooms in the dormitories are completely furnished. Students will, however, provide their own pillows, bed linen (for single beds), blankets, and towels.

Rent for the scholastic year is \$171.50, payable in advance as follows: fall semester, \$85.75 due by September 1; spring semester, \$85.75 due by January 22. After registration no refunds will be made on rent for students who move from the University Residence Halls, unless the student is withdrawn from the University because of illness, death in the family, or because of disciplinary reasons. Application for a room should be made to the University Cashier and should be accompanied by a deposit of \$10.00.

For further information on room assignments see page 122.

Dormitory Accommodations for Women

Eight dormitories accommodate each year approximately 1,000 students. Spencer, McIver, Alderman, Carr, and Whitehead Halls are for undergraduates; Kenan and Smith Halls are for graduate and professional students; and the Dormitory for the School of Nursing is primarily for student nurses. During the summer session, Whitehead Hall will be used by the Extension Division and not by undergraduate women. These arrangements are subject to change.

Residents of Spencer Hall are required to board there at a cost of approximately \$200 per semester. Residents of the women's dormitories are given preference for vacancies in Spencer Hall dining room, but are privileged to board at any of the available boarding places.

Undergraduate women students not living in their own homes are required to reside in a dormitory unless permission to live elsewhere is granted by the Dean of Women. Such permission is granted in exceptional cases only. Graduate women may reside in the town of Chapel Hill, as well as in two dormitories.

All rooms are furnished. However, students provide pillows, bed linen (for single beds), blankets, towels, and curtains.

Rooms in women's residence halls are assigned by the Office of the Dean of Women. See page 123 for details of procedure.

Room rent in a room for two persons is normally \$215 per person for the regular academic year. Actual costs and details concerning payments may be found in the *Handbook* for women students, a copy of which will be mailed upon request to the Dean of Women.

Boarding Accommodations

The University operates for the benefit of the students the conveniently located Lenoir Hall Cafeteria and the Carolina Inn Cafeteria. Well-balanced menus are offered at standard prices.

**SUMMARY OF ESTIMATED EXPENSES FOR THE COLLEGE
YEAR OF THE AVERAGE MALE STUDENT WHO
IS A RESIDENT OF NORTH CAROLINA**

Board, estimated at \$12 to \$15 a week	\$450.00
Dormitory room	171.50
² Tuition	150.00
Matriculation and students' fees, estimated for freshman year	91.50
Laundry deposit	40.00
Books and supplies, estimated for year	60.00
Laboratory fees, estimated for the average freshman	12.00
	<hr/>
TOTAL FOR NORTH CAROLINA RESIDENT	\$975.00

FINANCIAL AID

The income from a number of endowed scholarships is available for students who can show academic attainment along with definite financial need. The University also has certain funds which may be loaned to worthy students who can show definite need. In addition, there are part-time jobs involving various kinds of work which enable some students to earn a part of their expenses. Information about all these types of assistance may be obtained by writing the Director of Student Aid.

Fellowships and Scholarships

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. Ledoux.) The holder of this fellowship, which provides \$300 annually, is expected to devote himself to research in chemistry.

THE GRAHAM KENAN FELLOWSHIP IN PHILOSOPHY. (Established in 1921 by Mrs. Graham Kenan.) This annual fellowship, established in memory of an alumnus and trustee of the University, is supported by the income from an endowment of \$25,000.

THE WILLIAMS FELLOWSHIPS IN PHILOSOPHY. (Established in 1941.) Established by the will of Dr. Henry Horace Williams in honor of his mother, Mary Taylor Williams, and his wife, Bertha Colton Williams. The number, value, and recipients of these fellowships are decided each year by the professors in the Department of Philosophy of the University.

2. Information concerning tuition for professional schools is available in the catalogues of the schools of Law, Medicine, Dentistry, Pharmacy, Public Health, Nursing, and Library Science.

THE ERNEST H. ABERNETHY FELLOWSHIP IN SOUTHERN INDUSTRY. (Established in 1944.) The holder is required to do research in an industry of importance to the South and to prepare a thesis as the result of the study.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, North Carolina, bequeathed \$10,000, the interest of which shall be devoted to paying the tuition of students. In 1940, James Moore, the son of the donor, raised the sum to \$15,000.

THE FRANCIS J. SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University in memory of her brother, Dr. Francis Jones Smith, 1,460 acres of land, known as Jones' Grove, in Chatham County. The will provides that rents of the land or, if sold, the interest on the purchase money shall be used to pay the tuition of such needy student as the faculty shall appoint.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed \$37,000 for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded in his memory ten scholarships.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepherd Speight bequeathed \$10,000 to the University. The income shall be used to pay the tuition of needy students; if tuition is ever made free, the income shall be used toward paying the salaries of professors.

THE MARTHA AND VARINA MASON SCHOLARSHIPS. (Established in 1894.) Mrs. Mary Elizabeth Mason bequeathed to the University a tract of about 800 acres of land (now known as Mason Farm) which had been purchased by her grandfather from the Earl of Granville, and her husband, Rev. James Pleasant Mason gave \$1,000. The will stipulated that the endowment be named after their two daughters, Martha and Varina Mason, and the income used for the education of needy students.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil of Goldsboro, North Carolina, furnishes one scholarship of the value of \$75.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships were founded by Mrs. Shirley Carter, of Baltimore, Maryland, and the late Mrs. James Sprunt, of Wilmington, North Carolina, in memory of their father.

THE DONALD FAIRFAX RAY SCHOLARSHIP. (Established in 1919.) Mrs. N. W. Ray of Fayetteville, North Carolina, established this scholarship in memory of her son, Donald Fairfax Ray, a graduate of the University, who died while in the service of his country.

THE HOLT SCHOLARSHIPS. (Established in 1920.) Four scholarships are maintained by the income from the Holt Loan Fund, established by Mr. Lawrence S. Holt, Jr. They are awarded to a member of each of the four classes in the academic department. Applications are considered after the opening of the University in the fall.

THE R. H. LEWIS SCHOLARSHIPS. Four scholarships, endowed by the University Gymnasium Association and called the R. H. Lewis Scholarships, are assigned by the President, and are to be used for tuition in the academic department.

THE GEORGE NEWBY TOMS SCHOLARSHIPS. (Established in 1926.) Mr. C. W. Toms, in memory of his son, George Newby Toms, granted the income from a fund of \$10,000 as scholarships to worthy students, preference being given to students from Durham and Perquimans counties in North Carolina.

THE MARY K. BROWN MEMORIAL SCHOLARSHIP. (Established in 1931.) This scholarship, established by Mrs. James M. Brown in memory of her daughter, who for several years was secretary of the School of Commerce of the University, is awarded to a worthy student who is dependent upon his own efforts to secure an education.

THE GENERAL ROBERT RANSOM SCHOLARSHIP. This \$200 scholarship, controlled by the United Daughters of the Confederacy in North Carolina, is awarded each year to a lineal descendent of a Confederate veteran.

THE WILLIAM BLOUNT RODMAN SCHOLARSHIPS. Two scholarships assigned to students at the University from the memorial trust fund created by Colonel W. B. Rodman in memory of his father, William Blount Rodman. They are assigned by the State Superintendent of Public Instruction, Trustee of the fund.

THE MARK R. BRASWELL SCHOLARSHIPS. (Established in 1938.) In memory of Dr. Mark R. Braswell, Class of 1888, of Rocky Mount, North Carolina, a fund of \$20,000 has been created for the endowment of scholarships valued at \$200 each to be awarded annually to entering freshmen by the Braswell Scholarship Committee. Four scholarships are awarded annually for a tenure of one year each. The Committee, at its discretion, may extend the tenure, thus enabling the award to be made to a previous holder. The qualifications for award are character, all-round development, high scholastic attainment, and financial need.

THE HERBERT WORTH JACKSON MEMORIAL SCHOLARSHIPS. (Established in 1938.) Endowed by Mrs. Annie H. Jackson of Richmond, Virginia, as a memorial to her husband, Herbert Worth Jackson, Class of 1886, and supplemented in 1940 by additional gifts of Herbert Worth Jackson, Jr., and Samuel S. Jackson, the fund maintains four \$2,400 scholarships for entering freshmen, native-born residents of North Carolina, nominated by their high schools or preparatory schools. One candidate only may be certified by each school to the University Scholarship Committee, which in turn shall select from all boys thus certified twenty, who shall come to Chapel Hill for interviews with the Jackson Scholarship Committee. The basis of selection shall be high scholastic rank, character, qualities of leadership, achievement, physical health and vigor, and promise of future distinction. A new four-year award is made each year.

THE BERNARD-GRAIL SCHOLARSHIPS. (Established in 1938.) Scholarships of \$150 each, maintained by interest from the Grail Loan Fund and net receipts from dances given from time to time by the Order of the Grail for the welfare of the entire student body. These scholarships were established in memory of Professor William Stanley Bernard who, as faculty adviser, was a source of inspiration and guidance to the Order of the Grail.

THE COUNCIL-MASSEY SCHOLARSHIP. (Established in 1941.) This scholarship was founded by C. Knox Massey of Durham, North Carolina, in honor of his father, C. W. Massey, University alumnus, civic and educational leader of Durham, and C. T. Council, University trustee, manufacturer, civic and educational leader of Durham. Scholarships are awarded from time to time as the interest from a principal fund of \$35,000 makes them possible.

THE H. V. WILSON SCHOLARSHIP FOR STUDIES IN MARINE BIOLOGY. (Established originally in 1937, supported subsequently from a fund established jointly by Dr. Henry V. Wilson, Jr., and former students and friends of Professor Wilson.) The holder of this \$100 scholarship is expected to pursue graduate studies or research at the seacoast during the summer of award.

THE GEORGE W. GRAHAM MEMORIAL SCHOLARSHIP. (Established in 1942.) Established by Mrs. George W. Graham, Sr., of Charlotte, North Carolina, as a memorial to her husband, Dr. George W. Graham, Class of 1858. The income only is to be used as scholarship awards. The recipient is to be designated by the University Scholarship Committee.

THE COLUMBUS HOWARD MORRISON SCHOLARSHIP. (Established in 1943.) Established by Fred W. Morrison of Washington, D. C., in memory of his father, Columbus Howard Morrison. Income from the

investment of the scholarship endowment is to provide scholarships for promising young men and women who need financial assistance with preference given to those students from Cabarrus and Rowan counties.

THE MARVIN B. SMITH, JR., MEMORIAL SCHOLARSHIP. (Established in 1944.) Established and endowed by Mr. and Mrs. M. B. Smith, Sr., Miss Alyse Smith, and J. Harold Smith, of Burlington, North Carolina, as a memorial to their son and brother, Marvin B. Smith, Jr., of the Class of 1926. The fund maintains four scholarships, valued at \$400 each and annually awarded to entering freshmen who plan to have their major work in the School of Business Administration. Applicants must be residents of North Carolina. The tenure of the scholarship is four years, provided the holder maintains high moral and scholastic standards. The basis of selection shall be high scholastic rank, character, promise of business leadership, and financial need.

FREDERICK H. KOCH PLAYWRITING SCHOLARSHIP. (Established in 1945.) Established jointly by the University of North Carolina and the friends of Professor Koch. Students of junior, senior, or graduate standing may apply and the choice of candidates, made upon the recommendation of the Department of Dramatic Art, is based on the applicant's talent in playwriting and on his need for financial assistance.

THE CHI PSI SCHOLARSHIP. (Established in 1946 by the Trustees of the Chi Psi Fraternity Educational Trust.) One scholarship, not to exceed \$200, to be awarded annually by the University Scholarship Committee to a regularly enrolled junior or senior student member of the Chi Psi Fraternity who has exhibited promise in scholarship and qualities of leadership.

THE ANDREW BERSHAK INTERFRATERNITY SCHOLARSHIP. (Established in 1948.) Established from contributions from University of North Carolina students who are members of various social fraternities as a memorial to Andrew Bershak, Class of 1938. The fund maintains a scholarship valued at \$2,000 covering a four-year tenure (\$500 a year) subject to maintenance of high standing by the recipient as a student at the University. The basis of selection shall be high scholastic rank, character, qualities of leadership, and financial need.

THE JOSEPHUS DANIELS SCHOLARSHIP. In accordance with the will of the late Josephus Daniels, funds have been provided to establish a scholarship valued at \$500 a year for four years to be awarded to a North Carolina student. This award is made on the basis of scholarship, character and citizenship, and financial need.

THE WILLIAM ISAAC WITKIN SCHOLARSHIP. The income from a fund of \$10,000 to be used as scholarships to be awarded each year

by the University Scholarship Committee in accordance with its usual regulations. This fund was established by Mr. Isaac Witkin, of New York City, in gratitude for and in commemoration of the safe return from war service of his son, William Isaac Witkin, Class of 1943.

THE CHARLIE JUSTICE SCHOLARSHIP. One scholarship maintained by interest from a fund of \$10,000 raised by the Tar Heel Club of Durham, North Carolina, from friends and admirers of Charlie Justice, outstanding University athlete, Class of 1950. The scholarship is to be awarded each year by the University Scholarship Committee to a graduate of a North Carolina high school who has demonstrated outstanding ability as a football player and who can otherwise qualify for a University scholarship.

THE ERIC SCHWARZ MEMORIAL SCHOLARSHIP. This scholarship of \$250 is awarded annually by the University Scholarship Committee as a memorial to Eric Schwarz, a freshman at the University in 1943-1944 who was killed in action in Germany, February 18, 1945. The scholarship is provided by his parents, Dr. and Mrs. Berthold T. D. Schwarz of Montclair, New Jersey. The award is made to an entering freshman with special talents in music.

THE JOHN MOTLEY MOREHEAD SCHOLARSHIPS. (Established in 1951 by the John Motley Morehead Foundation.) For undergraduate study leading to an academic degree, undergraduate scholarships may be awarded only to (a) graduates of junior colleges on the list of eligible institutions; (b) graduates of high schools and preparatory schools on the list of eligible institutions. The value of the scholarships is \$1,250 per annum.

The tenure of a Morehead Scholarship is dependent upon the maintenance, by a scholar, of standards of work and conduct which, in the opinion of the Trustees, justify the scholarship.

THE SCHOOL OF NURSING COMMITTEE SCHOLARSHIPS. (Established in 1953.) Sponsored by the School of Nursing Committee of the Medical Foundation of North Carolina, Inc., a number of individual and corporate gifts provide scholarships to deserving students entering the School of Nursing. Varying in amount from \$100 to \$500 the awards are renewable annually for a period of four years upon evidence of satisfactory progress toward a nursing degree.

THE WBT-WBTV SCHOLARSHIPS OF THE JEFFERSON STANDARD FOUNDATION. (Established in 1954.) Valued at \$5,000 (\$1,250 annually), these scholarships were established by the Jefferson Standard Foundation to encourage worthy students to obtain college training for a career in radio or television broadcasting. The awards are open to residents of North and South Carolina who are graduates of accredited high schools or preparatory schools. They are renewable

over a four-year period providing satisfactory academic progress is demonstrated. Criteria for selection are: academic ability and achievement, sound character, and manifest interest in radio and television as an occupation.

CARRIE HEATH SCHWENNING SCHOLARSHIP. (Established in 1954.) Provided for and awarded by the Chapel Hill Branch of the American Association of University Women, this scholarship of \$100 is awarded annually to a woman graduate student.

THE AUBREY LEE BROOKS SCHOLARSHIPS. (Established in 1955.) An endowment fund of approximately \$1,000,000 established by Mr. Aubrey Lee Brooks, of Greensboro, North Carolina, Class of 1895, to promote the education of deserving youth by providing scholarships at the University of North Carolina in Chapel Hill, the North Carolina State College of Agriculture and Engineering in Raleigh, and the Woman's College in Greensboro, to high school graduates selected by the Trustees of the Aubrey Lee Brooks Foundation. Applicants for these scholarships shall be residents of Surry, Stokes, Rockingham, Caswell, Person, Granville, Alamance, Orange, Durham, Guilford, and Forsyth counties. Applications may be secured from high school principals in the counties named. The scholarships are currently valued at approximately \$500 for each year.

THE BURLINGTON INDUSTRIES SCHOLARSHIPS. (Established in 1955.) These annual scholarships provided by the Burlington Foundation are awarded to an outstanding junior for his or her final two years of undergraduate study. Students selected for the award receive \$500 annually. In addition, the Burlington Foundation gives an equal amount to the University for administrative purposes. Selection criteria are: leadership, scholarship, and financial need.

THE LOUIS GRAVES SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at \$300 in honor of Louis Graves, teacher of journalism at the University from 1922 to 1924. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE GERALD W. JOHNSON SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at \$300 in honor of Gerald W. Johnson, who taught journalism on the campus from 1924 to 1926. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE O. J. COFFIN SCHOLARSHIP. (Established in 1956.) Income from the School of Journalism Foundation of North Carolina, Inc., provides a scholarship valued at \$300 in honor of O. J. Coffin, head of journalism instruction at the University from 1926 to 1953. The award is made on the basis of scholarship, intention to enter newspaper work, and financial need to a senior student in the School of Journalism.

THE QUINCY SHARPE MILLS SCHOLARSHIP. (Established in 1956.) The late Mrs. Nancy Sharpe Mills bequeathed to the University \$17,000 as an endowment for scholarships in memory of her son, Quincy Sharpe Mills, who was killed in France July 26, 1918. The income from the endowment is for use in providing scholarships for worthy young men who would be unable to study journalism otherwise.

THE HOWARD W. ODUM SCHOLARSHIP. Pending the establishment of a permanent memorial to the late Professor Odum, a friend and former student anonymously provides one scholarship of \$150 to be awarded to an undergraduate student majoring in sociology. The award is made on the basis of scholarship, character, and financial need. The first award was made for the year 1956-1957.

TEXACO SCHOLARSHIP. (Established in 1957.) This scholarship was established by the Texas Company as a part of its aid-to-education program. An award is made each year to an entering freshman planning to enter a field of study "which would be useful to the oil industry, although there shall be no obligation of such employment on the part of the company or the student." The annual value (tuition, matriculation fees, and books) is approximately \$375, renewable from year to year for a maximum tenure of four years.

UNION CARBIDE CORPORATION SCHOLARSHIP. (Established in 1957.) The Union Carbide Corporation established this scholarship to assist and encourage students who take mathematics in their freshman and sophomore years, with a major in either mathematics, physics, chemistry, or economics in their junior and senior years. One award is made each year to an entering freshman. The annual value is \$375, renewable from year to year for a maximum tenure of four years.

THE ALUMNI ANNUAL GIVING GRADUATE FELLOWSHIPS. (Established in 1957.) As one of its most significant contributions to the University in 1957, the Alumni Annual Giving Program created a number of \$2,100 fellowships available to qualified students entering the School of Graduate Studies.

THE ESCHEATS SCHOLARSHIPS. Receipts from escheated property and interest and earnings thereon have been set apart by the Trustees of the University in a special fund. The earnings from the fund are

allocated to the institutions comprising the University of North Carolina for scholarships and loan funds to worthy and needy students who are residents of North Carolina.

STUDENTS STORES GRANTS AND AWARDS. By action of the Board of Trustees of the University of North Carolina, May, 1952, profits from the Book Exchange and other student stores are set aside for scholarships and grants-in-aid.

With the exception of the Morehead Scholarships, Escheats Scholarships, and Student Stores Grants and Awards, these Scholarships are not open to students in the schools of Law, Medicine, Dentistry, Library Science, Public Health, Social Work, and Nursing. For scholarships open to students in these schools, please see the special bulletins of the schools.

This list does not include certain annual contributions for scholarships, which are not on an endowment basis.

APPLICATION FOR SCHOLARSHIPS

All applications for scholarships must be filed in the Student Aid Office. Applications should be submitted by March 1. The University Scholarship Committee makes the awards annually on or about May 1 and from time to time during the year. All applications must be in the regular form prescribed by the University. Forms are supplied on request to the Director of Student Aid.

Free Tuition

Free tuition is given to residents of North Carolina who have physical handicaps. Information and application forms are available upon request to the Director of Vocational Rehabilitation Division, State Department of Public Instruction, Raleigh, North Carolina.

Loan Funds

THE DEEMS FUND. (Established in 1879.) A fund of \$600 was established by the Reverend Charles Force Deems, D.D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881, the fund was enlarged by a gift of \$10,000 from Mr. William H. Vanderbilt.

THE MARTIN FUND. Interest from this fund, established by the bequest of Mr. Thomas D. Martin, of Raleigh, became available for loans during the session of 1908-1909.

THE HOGUE FUND. Interest from a fund of \$4,000, established by the Reverend R. W. Hogue of Baltimore, Maryland, is to be loaned to worthy students in the University.

THE HEWITT FUND. Interest from a fund of \$18,700, established in 1916 by the bequest of Mr. Joseph Henry Hewitt, of Princess Anne County, Virginia, will be used for loans to "needy and deserving students" of the University.

THE HOLT FUND. The principal of a fund of \$10,000, established by Mr. Lawrence S. Holt, Jr., of Burlington, North Carolina, is to be loaned to "worthy and needy students of the University." In addition, four scholarships in the University have been set up from the income of the fund.

THE VICTOR S. BRYANT FUND. The principal and interest of a fund of \$7,500, established by the bequest of Mr. Victor S. Bryant, of Durham, North Carolina, will be used for loans to "worthy and needy young men" at the University.

THE SEELY FUND. A fund of \$1,000 has been established by Mr. F. L. Seely, of Asheville, North Carolina, the principal of which is to be loaned to worthy and needy students, and the income therefrom to be added to the principal.

THE E. S. BLACKWOOD MEMORIAL LOAN FUND was created by bequest of Miss Katherine B. Blackwood, of New York City, and consists of \$10,000 "to be used as a loan fund for needy students." This fund administered in the same manner as the Deems Fund.

THE A. B. ANDREWS LOAN FUND. In May, 1925, the five children of the late Colonel A. B. Andrews (William J. Andrews, Class of 1891; Alexander B. Andrews, Class of 1893; Mrs. W. M. Marks; John H. Andrews, Class of 1897; and Graham H. Andrews, Class of 1903) established a fund of \$2,500 of which the principal and interest are to be loaned to worthy students. This fund has been increased to \$4,750 through subsequent gifts from Mr. Alexander B. Andrews, of Raleigh, North Carolina. The A. B. Andrews Loan Fund is administered as are other loan funds from the University and is established as a memorial to Colonel A. B. Andrews, a noted railroad builder in North Carolina and a Trustee of the University. It is requested by the donors that assistance from this fund be rendered first to students from those counties of North Carolina in which Colonel Andrews built railroads and second to students from those counties through which lines of the S.A.L., Norfolk-Southern, and Southern Railway systems run.

THE J. E. LEAR FUND. This fund of \$5,244 became available in 1924. The fund was the result of installation work done by the senior class in electrical engineering under the supervision of Professor J. E. Lear.

THE JOSEPH E. POGUE LOAN FUND. This fund of \$1,000 was presented to the University in April, 1930, by Mrs. Joseph E. Pogue as a memorial to her husband, the late Mr. Joseph E. Pogue. The principal and interest are to be loaned to deserving students.

THE EDMONDS LOAN FUND. This fund of a little over \$800 has been set up by the Class of 1910 as a memorial to W. R. Edmonds, a member of that class.

GRAIL LOAN FUND. In June, 1930, the Order of the Grail, an undergraduate organization at the University of North Carolina, gave \$1,400 to be known as the Grail Loan Fund. Additional gifts by the Order of the Grail and income from interest have increased the fund to \$3,000. The principal of this fund is loaned to worthy students and the income is used to support the Bernard-Grail Scholarships.

THE ALDEN JOSEPH BLETHEN, III, MEMORIAL LENDING FUND. During the fall of 1930, Colonel C. B. Blethen, of Seattle, Washington, gave \$2,000 to be known as the Alden Joseph Blethen, III, Memorial Lending Fund. This he did as a memorial to his son, A. J. Blethen, III, a member of the Class of 1934. The principal of the fund is to be loaned to deserving students.

THE ROCKINGHAM COUNTY ALUMNI LOAN FUND. In 1932, a fund of \$713.32 was advanced by the Rockingham County Alumni Association. It is subject to recall by the Association.

THE RHO CHI LOAN FUND. The Xi Chapter of the Rho Chi Honorary Society has established a loan fund for deserving students of pharmacy.

THE CHARLES L. COON MEMORIAL LOAN FUND. A fund of \$1,415 established by the administrators of the Charles L. Coon Memorial Loan Fund of Wilson, North Carolina, in September, 1934. The funds to be loaned to graduates of the Charles L. Coon High School of Wilson, North Carolina, upon the written approval of the school's superintendent and the chairman of the Board of Trustees.

THE JOHN B. WEAVER LOAN FUND. In 1937, a fund of \$1,915 was established by Dr. William Jackson Weaver of Asheville, North Carolina, in memory of his father, John B. Weaver. It is administered under the same terms as the Deems Fund.

THE SHERMAN LOAN FUND. A fund established in 1939 by Dr. Joshua Sherman, Class of 1906, of Lancaster, Pennsylvania, and amounting at present to \$1,419.28. The fund is available for student loans on the usual terms.

THE MAJOR DAVID C. AND MARTHA REEVES EDWARDS LOAN FUND. A fund established June 10, 1940, by a gift of \$1,000 as a memorial to a father and mother of Alleghany County who educated four sons

at the University. Donors have requested that assistance from this fund be rendered first to relatives, second to students from Alleghany County, and third to other students from North Carolina and states adjacent to North Carolina. In any case, however, the recipient of the loan must comply with all requirements imposed by the University Loan Fund Committee.

THE WINSTON-SALEM DRUGGISTS' LOAN FUND. Organized Druggists of Winston-Salem in 1942 gave \$200 to be loaned to worthy students of pharmacy.

THE LOAN FUND OF THE CLASS OF 1942. The class gift of \$350 in 1942 was set up as a loan fund under the usual terms for the administration of such funds.

THE DAVID ANDERSON ALLEN FUND. Established in 1945 by the wife (Jennie Ann Eford Allen) and children (Paul Haywood and Mary Ann) of David Anderson Allen, who graduated with the Class of 1938. Lieutenant Allen died in the service of his country on March 19, 1945, on the *U. S. S. Franklin*. The income from this fund is available as a loan or gift to deserving students at the University from Mecklenburg County, North Carolina.

THE DR. JOHN R. EDWARDS LOAN FUND. This fund was established in 1945 by a gift of \$1,500 to the University by Dr. B. O. Edwards, of Asheville, North Carolina, as a memorial to his son, the late Dr. John R. Edwards, a graduate of the University. This amount was later supplemented by an additional \$1,500 from Dr. Edwards' daughter, Mrs. Foster Mackenzie, making the total fund \$3,000. The principal and interest are to be loaned to deserving students, with preference given to North Carolina premedical students.

THE OLIVIA DUNN STUDENT LOAN FUND. A fund of approximately \$25,000 established in 1946 at the bequest of Mary Olivia (Birdie) Dunn of Wake County as a memorial to her mother, Olivia Godwin Dunn. The fund is to be loaned to worthy students in accordance with the usual terms of the University Student Loan Funds.

THE SALLIE A. HUNT DENTAL MEMORIAL LOAN FUND. This fund was established in 1950 by a gift to the University from Dr. R. Fred Hunt of Rocky Mount, North Carolina, as a memorial to his mother, the late Sallie A. Hunt who was born in Nash County. The principal and interest are to be loaned to deserving North Carolina junior and senior (preferably senior) dental students.

THE WOODWARD-FLEMING LOAN FUND. This fund, founded in 1951, is designed to encourage advanced training and educational experiences for dental teachers or prospective teachers of dentistry at the University of North Carolina, and also, to provide a source of loans for worthy students of dentistry. The fund is made possible

through a gift from Mr. John W. Fleming and Mr. Robert Woodward, of the Fleming Dental Laboratory and the Woodward Prosthetic Company, respectively.

THE JESSE KNIGHT DOZIER LOAN FUND. A fund of approximately \$135,000 established in 1954 by Dr. Jesse Knight Dozier, native of Tarboro, North Carolina, Class of 1899, and resident of Pasadena, California, at the time of his death in 1954. Dr. Dozier's bequest enables the University to offer major loan fund assistance on very favorable terms to public school teachers and those planning to teach, who are registered in the University's School of Education while using aid from this loan fund.

THE WILLIAM T. HOLLAND MEMORIAL LOAN FUND. Income and principal from this fund of \$37,289.19 established in 1954 by Mrs. Byrd T. Holland of Charlotte, North Carolina, as a memorial to her husband, William T. Holland, to be used for loans to needy and deserving boys attending the University. Students majoring in Geology shall be given first consideration.

THE WILLIAM A. WHITAKER, SR., AND ANNA BITTING WHITAKER LOAN FUND. A fund of \$5,000 established in 1955 by William A. Whitaker, Jr., of Winston-Salem, North Carolina and New York City, as a memorial to his father and mother, who educated four sons at the University. The income from the fund is to be used for loans to worthy students.

The Emergency Student Loan Fund

In the winter and spring of 1932, the University faced a genuine emergency growing out of an announced reduction of state appropriations by 30 per cent, and the fact that between five hundred and seven hundred students were without funds with which to continue their schooling. When this situation was presented by President Graham, students (\$2,057.14), faculty (\$2,035.38), and people and community organizations of Chapel Hill (\$970.22), various chapters of the D.A.R., U.D.C., and other committees of women, began building a student loan fund. Alumni and friends of the University everywhere contributed to raise the total of new loan resources to \$109,000, known collectively as "The Emergency Student Loan Fund." The portions of that fund which for some appropriate reason were separately established are listed below. Unless otherwise indicated, the funds are loaned on the same terms as is the Deems Fund.

THE W. C. COKER LOAN FUND. A fund of \$500 established February 2, 1932, by Dr. W. C. Coker, head of the Department of Botany of the University.

THE JESSIE KENAN WISE LOAN FUNDS. A loan fund of \$25,000 established February 4, 1932, by Mrs. Jessie Kenan Wise, of Wilmington, North Carolina, and another loan fund of \$47,000 in securities, the income from which may be loaned to students immediately, and the principal of which may be similarly used when made available through sale of the securities as opportunity for sale on favorable terms may arise.

THE BURTON CRAIGE LOAN FUND. A fund of \$1,000 established February 6, 1932, by Mr. Burton Craige, Class of 1897, of Winston-Salem, North Carolina.

THE BLAIR LOAN FUND. A fund of \$500 established March 2, 1932, by the Honorable David H. Blair, Class of 1898, and Mrs. David H. Blair, of Washington, D. C.

THE SARAH WATTS MORRISON LOAN FUND. A fund of \$1,000 established March 4, 1932, by Mrs. Sarah Watts Morrison of Durham and Charlotte, North Carolina.

THE SARAH GRAHAM KENAN LOAN FUND. A fund of \$1,000 established March 7, 1932, by Mrs. Sarah G. Kenan, of Wilmington, North Carolina, to be awarded according to the designation of the donor.

THE MILO M. PENDLETON LOAN FUND. A fund of \$1,000 established March 15, 1932, by Mrs. Katharine Pendleton Arrington as a memorial to her brother, Milo M. Pendleton, of the Pharmacy Class of 1902.

THE RICHMOND, VIRGINIA, ALUMNI ASSOCIATION LOAN FUND. A fund of \$320 given in 1932 by the organization named above with the request that it be set so as to receive annual additions from the donors.

THE EDRINGTON SPENCER PENN AND CHARLES ASHBY PENN, JR., LOAN FUND. A fund of \$1,000 established April 14, 1932, by Mrs. Charles Ashby Penn, of Reidsville, North Carolina.

THE C. W. TOMS LOAN FUND. A fund of \$1,000 established May 19, 1932, by Mr. C. W. Toms, Class of 1889, of New York City, in memory of his son, the late George Newby Toms, Class of 1928.

THE MARGARET MCCALL CARMICHAEL LOAN FUND. On May 25, 1932, a fund of \$1,000 was established by W. D. Carmichael, Class of 1897.

THE ANNIE LOUISE WATTS HILL LOAN FUND. A fund of \$1,000 established by Mr. John Sprunt Hill, of Durham, North Carolina, on June 4, 1932, as a memorial to his wife.

THE GEORGE BASLEY HISS LOAN FUND. A fund of \$10,000 established in 1932 by Mrs. Bertha T. Hiss, of Charlotte, North Carolina, in memory of her husband, George Basley Hiss.

UNIVERSITY STUDENT LOAN FUNDS POLICY AND REGULATIONS

The University, within available loan funds, makes loans to students on the basis of applications showing a detailed analysis of the individual's necessary University expenses and his available income from sources outside the University, along with a record of the applicant's academic achievements and a statement of his educational objective.

Student loans are administered subject to the following regulations:

1. Any loan must be for necessary educational expenses and shall not exceed \$1,000 in any one calendar year or a total of \$5,000 for any student. The Loan Fund Committee may limit loans to one student to an amount less than \$5,000.

2. Loans will be made only to students who demonstrate need for financial assistance and capability of maintaining good standing. Entering students may apply provided they have good to superior academic ability.

3. Loans shall bear 3 per cent interest. No payments on principal shall be required and no interest shall be charged while a student is enrolled on a full-time basis in the University of North Carolina. At the request of the borrower, interest and payments on principal may be waived for a period of not more than three years while the borrower is in military service. In accepting this waiver the borrower agrees to notify the Manager of the Student Loan Funds of his address and status on July 1 of each year.

4. Loans may be made without collateral and without endorsement to students twenty-one years of age or over, who are deemed competent to execute a legal contract in the State of North Carolina. Loans made to students who are under twenty-one will require endorsement.

5. Loans are to be repaid according to a periodic plan of repayment agreed upon by the borrower and the Manager of the Student Loan Funds. Loans must be repaid within ten years. The period of repayment may be extended under justifiable circumstances.

Inquiries should be directed to Mr. Harold Weaver, University Student Loan Funds Office, Post Office Box 690, Chapel Hill, North Carolina.

Self-Help Work

There are jobs available for several hundred students wishing to earn part of their expenses. Students work in the libraries, dining halls, Graham Memorial, Book Exchange, dormitories, Woollen Gymnasium, Kenan Stadium, Buildings Department, and other University divisions and offices. All jobs are assigned by the Student Aid Com-

mittee, solely on the bases of scholastic merit, financial need, and good character. Holders of jobs are required to maintain a scholastic average of at least C from year to year. Jobs off the campus, in Chapel Hill homes and in business firms, are not assigned by any committee or division of the University. Such work is secured by the efforts of the student, the Director of Student Aid helping wherever possible. All inquiries about an application for work should be mailed to the Director of Student Aid before March 1, after which the jobs are assigned.

It is difficult for first-year students to do self-help work and carry successfully a full schedule of academic work. They are urged to devote full time, if possible, to their studies and related activities.

The Committee assigns the available jobs to those who, in its judgment, are most urgently in need of financial aid and who show high scholastic achievement. Each applicant is notified by personal letter of the Committee's decision on his application.

MEDALS AND PRIZES

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Martha ("Pattie") Person and Mary Sutherland Mangum, late of Orange County, in memory of their father, Willie Person Mangum, Class of 1815, is continued by the family of one of his descendants, Mr. Willie P. Mangum Turner of Winston-Salem, North Carolina, Class of 1900. This medal is awarded to that member of the senior class who, in the opinion of a group of judges, gives the most excellent oration at an annual oratorical contest.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of \$25 is offered annually to that member of the sophomore class who shall present the best rendering into English of selected passages of Greek not previously read.

THE ARCHIBALD HENDERSON PRIZE IN MATHEMATICS, formerly THE WILLIAM CAIN PRIZE. (Established in 1908.) A gold medal is given annually to the undergraduate student judged by the Department of Mathematics as having demonstrated a high order of mathematical ability and shown the greatest promise of originality in the field.

THE MILDRED WILLIAMS BUCHAN PRIZE. (Established in 1920.) A fund of \$1,000 was given by Mr. Edward Robertson Buchan in memory of his wife. The income of this fund is to provide a prize in the Department of Philosophy.

THE PATTERSON MEDAL. (Established in 1924.) A gold medal is offered annually by Dr. Joseph F. Patterson in memory of his brother, John Durant Patterson. This medal is awarded for general excellence in athletics to a student selected by a special committee.

THE BUXTON WILLIAMS HUNTER MEDAL IN PHARMACY. A gold medal is offered annually by Mr. D. R. Davis of Williamston, in honor of his uncle, Mr. Buxton Williams Hunter, of New Bern, and is awarded to that student who has shown outstanding qualities of leadership and scholarship and who has done conspicuous work in the Student Branch of the N.C.P.A.

THE LEHN AND FINK GOLD MEDAL IN PHARMACY. (Established in 1924.) This medal is given annually by Lehn and Fink of New York City, and is awarded to the student in the graduating class making the highest average during the four years of study.

THE CHI OMEGA PRIZE IN SOCIOLOGY. (Established in 1927.) A prize of \$25 is awarded by the local chapter of the Chi Omega Fraternity to the graduating woman student majoring in sociology who, in the judgment of a committee of the Department of Sociology and Anthropology, best exemplifies high scholarship, leadership, and promise of productive citizenship.

THE E. CARRINGTON SMITH AWARDS. (Established in 1928.) A trophy is presented annually in football and in basketball to the most valuable player in each sport possessing qualities of leadership, scholarship, and sportsmanship. The recipient is elected by the squad members in the respective sports.

THE ALGERNON SYDNEY SULLIVAN AWARD. (Established in 1928.) To be bestowed annually upon one man and one woman of the graduating class who have best demonstrated an attitude of unselfish interest in the welfare of their fellowman. The award shall not be based upon scholastic, athletic, or other collegiate attainments.

THE DELTA SIGMA PI AWARD. (Established in 1931.) This award is given annually to the senior in the School of Business Administration who has the highest academic average.

THE ROLAND HOLT CUP IN PLAYWRITING. (Established in 1936 by Mrs. Roland Holt in memory of her husband.) This award is made each year by the Department of Dramatic Art for excellence in playwriting.

THE DICK JAMERSON SWIMMING AWARD. (Established in 1940.) This award is made annually to the freshman and senior who demonstrate excellence in scholarship, leadership, swimming and team morale.

THE JOHN JOHNSTON PARKER, JR., MEDAL FOR UNIQUE LEADERSHIP IN STUDENT GOVERNMENT. (Established in 1941.) This medal is given annually by the late Judge and Mrs. John J. Parker in memory of their son, John Johnston Parker, Jr., Class of 1937, who rendered distinguished and sacrificial leadership as President of the Student Council in one of the critical years in the history of Student Government. This medal is awarded by a special committee appointed by the President of the University to that member of the graduating class who has demonstrated most clearly the highest qualities of leadership in perpetuating the spirit of honor and the process of student self-government.

THE PHI BETA KAPPA AWARD. (Established in 1941.) An award amounting to \$150 is given annually by the local Chapter of the Phi Beta Kappa National Honorary Fraternity to that member of the rising junior class (eligible for self-help work) who has made the highest scholastic average during his freshman and sophomore years.

THE ERNEST H. ABERNETHY PRIZE IN STUDENT PUBLICATION WORK. Mr. Ernest H. Abernethy, Class of 1922, of Atlanta, Georgia, established in 1941 an annual award of a plaque and \$50 in cash, which is to be presented to the student who is adjudged by a committee to have done the most distinctive work during the current year in the field of student publications.

THE FOY ROBBERSON, JR., MEDAL. A gold medal is offered by the late Dr. Foy Roberson and Mrs. Roberson in memory of their son, Foy, Jr., Class of 1940, varsity basketball 1939 and 1940; Second Lieutenant, Army Air Corps; killed in collision at sea, December, 1941. Awarded annually for the chief contribution to team morale in basketball.

THE JOSEPHUS DANIELS SCHOLARSHIP MEDAL. (Established in 1941.) A gift from the family of the Honorable Josephus Daniels to be invested and the income used to provide annually the Josephus Daniels Scholarship Medal for the University of North Carolina unit of the Naval Reserve Officers Training Corps.

THE FRANCIS P. VENABLE AWARD. (This was originally the Alpha Chi Sigma Prize in Chemistry, established in 1942.) A medal given annually by the local chapter of Alpha Chi Sigma Fraternity to the undergraduate student of chemistry selected by the faculty as best exemplifying high scholarship, leadership, and personality.

THE WILLIAM CHAMBERS COKER AWARD IN SCIENCE. (Established in 1948.) A sum of \$50 is awarded annually by the Elisha Mitchell Scientific Society to the graduate student whose thesis or dissertation shall be adjudged the best of those submitted for a graduate degree in the Science Division.

THE ALPHA KAPPA PSI SCHOLARSHIP KEY. Alpha Tau Chapter of Alpha Kappa Psi, a professional fraternity in commerce, awards annually the Alpha Kappa Psi scholarship key to the male senior student pursuing a degree in the School of Business Administration who has attained the highest scholastic average for three years of collegiate work in this University.

THE E. J. EVANS TRACK AWARD. (Established in 1949.) A permanent gold cup honoring the outstanding senior track athlete has been established by Mr. E. J. Evans, of Durham, North Carolina, and is kept in the University's trophy case. A special plaque is given each year to the student winning this honor.

THE JOHN BISHOP MEDAL. (Established in 1952.) This medal was established as a Revolutionary Memorial in honor of John Bishop (1740-1815), who served from Halifax County, North Carolina, in the Continental Army. It has been made available by a gift from one of his direct descendents of the fifth generation, Mr. Charles B. Bishop, Class of 1925, of New York City, and is to be given annually to a member of the N.R.O.T.C. of the sophomore or junior class for efficiency in marksmanship.

THE JESSIE MAI PETTY AWARD. (Established in 1953.) Mr. James B. Petty, Class of 1943, of Gastonia, North Carolina, established this award in honor of his mother. It consists of a book, or set of books, and a cash donation, the total value at present being set at \$100. It is presented annually to the junior who at the time of his election to Phi Beta Kappa has the highest scholastic average in his class.

THE BENJAMIN SOLOMON MEMORIAL AWARD. (Established in 1953.) A grant-in-aid and a trophy is offered annually by Mr. and Mrs. Sam Planer, of Gastonia, North Carolina, to the member of the varsity wrestling team who has best demonstrated the qualities of character and personality which are developed by his participation in wrestling.

THE JANE CRAIGE GRAY MEMORIAL AWARD. (Established in 1954.) This award is to be presented annually by Beta Chi Chapter of Kappa Delta, recognizing that woman of the junior class who has proved herself most outstanding in character, scholarship, and leadership. The award was established in memory of Jane Craige Gray.

THE IRENE F. LEE CUP AWARD. (Established in 1955.) The late Mrs. Irene F. Lee of Chapel Hill, North Carolina, who served as hostess and counselor in the Cornelia Phillips Spencer Hall from 1925 to 1948, established this award to honor that senior woman adjudged outstanding in character, leadership, and scholarship. The award is presented annually.

THE GEORGE LIVAS AWARD. (Established in 1956 by the senior class of the School of Nursing and friends of the late George T. Livas.) This is a monetary award presented each year to the member of the senior class of the School of Nursing who meets the specified qualifications of scholarship, leadership, and strength of character. The recipient is to be chosen by the graduating class of the School of Nursing and approved by the Dean of the School of Nursing or her delegate.

THE CAROLINA WOMEN'S COUNCIL AWARD. (Established in 1958.) A silver tray is presented annually by the Carolina Women's Council to a senior woman who for two years has served her dormitory and the University with diligence, faithfulness, and loyalty, and has also proved herself to be outstanding in character, personality, leadership, and scholarship.

REGULATIONS

Special Notice to Students

This catalogue, issued in the spring of each year, is intended to give such a description of the work of the University and such a digest of its rules as are needed by the students. Neither the courses announced nor the rules given are valid beyond the succeeding year, for before the end of the succeeding year a new catalogue will have been issued superseding all previous catalogues. Ordinarily a student may expect to be allowed to secure a degree in accordance with the requirements of the curriculum laid down in the catalogue in force when he first entered the University, or in any one subsequent catalogue published while he is a student; but the faculty reserves the right to make changes in curricula, as in rules, at any time when in its judgment such changes are for the best interest of the students and the University.

Registration

All students are required to register in accordance with the plan of registration established for the current year. All students registering at the University for the first time must submit to the University Physician a medical questionnaire completed by his family physician. Since a physical examination will not be required at the University Infirmary, a new student will not be permitted to register until the medical questionnaire has been received by the University Physician.

Registration for credit for any course is limited to the first four days of instruction of a semester unless the late registration is approved by the instructor concerned and the dean.

Payment of Bills

Bills for the fall and spring semesters and the summer session are payable at the time of registration or at the Cashier's office on the first class day of the semester or summer session and thereafter according to a schedule announced. Failure to pay or to make proper arrangements for payment results in the assessment of an extra fee of \$5.00.

Delayed Registration

Any student registering later than the time appointed for his registration must pay \$5.00 as an additional fee for delayed registration. *No appeal from the imposition of the late registration charge of five dollars will be granted unless the delay results from circumstances clearly beyond the student's control.* Such appeals must be made in writing to the Chancellor, must show justification for the delay in registering, and must bear the approval of the dean of the division of the University in which the appellant is enrolled.

Arrangement of Courses

Attention is called to the reduction of credit for freshman and sophomore courses when taken late in the student's career. Only half credit is allowed if a required freshman course is taken after a student begins his junior year or if a required sophomore course is taken after he begins his senior year.

No student while in the General College will be allowed to take fewer than five full courses a semester, unless he has the permission of his dean. Students who have a scholastic average of C in the preceding semester may take six courses representing not more than twenty semester hours. For six courses representing more than twenty semester hours, a scholastic average of B in the preceding semester is required. A student may not register for seven courses.

For students in the College of Arts and Sciences, School of Education, and the School of Journalism, a student must carry fifteen hours of work in order to be regularly enrolled. He may carry more than seventeen semester hours of work only if his scholastic average for the preceding semester was C (1.0). In order to carry more than eighteen semester hours of work his scholastic average for the preceding semester must be B (2.0). In no case can he receive credit for more than twenty semester hours in a semester. In the School of Business Administration, a load of 18 hours may be allowed if a student has at least a B average over-all and for the preceding semester, or if a senior with a C average over-all and for the preceding semester needs it to meet graduation requirements.

A student desiring to change his courses must make written application, which, after approval by his faculty adviser, will be considered by the dean. The written permission of the dean must be presented at registration.

The listing of a course in the catalogue does not obligate the University to give the course in any particular year.

Changes in registration are limited to the first four days of instruction in a semester.

There is a requirement that the full work of the last year shall be done in residence at this University.

Assignment of Rooms

MEN

Rooms in the University residence halls for men and accommodations for families in Victory Village are assigned by the Director of Housing. Each student in residence must make a room deposit of \$10.00 with the University Cashier and file a room reservation card with the Director of Housing by April 26. This will enable the student to retain the room he now occupies or be assigned a different room if he wishes. *Room rent for the fall semester is due on September 1st, and on January 22nd for the spring semester. Room assignments will be cancelled if payment is not received by the dates indicated.*

New men students should make application for a room in the residence halls as soon as notification of acceptance for admission is received from the Director of Admissions (for undergraduates) or from the office of the dean of the appropriate school or college to which application had been made for admission (for others). The room reservation card with the ten dollars (\$10.00) deposit must be sent to the University Cashier who, in turn, will forward the room card to the Director of Housing. *Room rent for the fall semester is due on September 1st, and on January 22nd for the spring semester.*

The room deposit is not refundable on room cancellations made after September 1st. Room rent is not refundable after registration.

The University reserves the right to require any student whom, for any reason, it considers an undesirable tenant to vacate a room in the University residence halls. The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempts on the part of an occupant of a room to sell or transfer his right to occupancy will be considered a fraudulent transaction and will result in the forfeiture of the room by the new lessee.

The occupant of a room will be held directly responsible for any damage done to his room or to its furniture.

No pets shall be kept in the University dormitories and Victory Village. Breach of this regulation leads to forfeiture of the place of residence.

WOMEN

Rooms in women's residence halls are assigned by the Office of the Dean of Women. After the student has been accepted officially by the University and after she has sent to the Cashier (1 South Building) the required room deposit of \$25, together with the *Application For Room Reservation* cards which she receives with her official letter of acceptance, the Office of the Dean of Women notifies the student of dormitory assignment. Room rent in a room for two persons is normally \$215 per person for the regular academic year. The deposit is deductible from the bill for room rent. (See also page 100.)

In making room reservation *for either of the two summer terms*, students are required to pay the amount of the entire room rent for one term at the time application is made for room reservation. For each summer term, the rental rate for usual accommodations for each person is \$30 in a room for two persons, \$55 for a single room. Rent for a summer term is refundable only if cancellation is received at least one week prior to the registration date of either summer term.

Conduct

By order of the Board of Trustees the faculty is directed to discipline or dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form (presence at hazing is regarded as participation), or to be guilty of dissolute conduct. See also Student Government, pages 86-87.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be required to leave the University.

Students, unless bona fide residents of Chapel Hill, when suspended from the University for disciplinary reasons, must leave the campus and Chapel Hill within forty-eight hours or forfeit the right to readmission at any time.

Attendance

Regular class attendance is a student obligation, and a student is responsible for all the work, including tests and written work, of all class meetings. No right or privilege exists which permits a student to be absent from any given number of class meetings.

Instructors will keep attendance records in all classes. If a student misses three consecutive class meetings, or misses more classes than the instructor deems advisable, the instructor will report the facts to the student's academic dean for appropriate action.

The faculty is responsible for enforcement of attendance regulations. In order to discharge this responsibility properly, members of the faculty will: (a) explain the attendance regulations during the first week of every class; (b) keep an accurate daily record of attendance; (c) report promptly to the dean of the school or college in which the student is registered the name of any student who has been absent three times.

The grade of a student who quits a course without the permission of the dean of his school or college is recorded officially as F.

The grade of a student who drops or is dropped for other than disciplinary reasons from a course in which he is failing at that time is recorded as an F unless, in the judgment of his dean, his failure was caused by circumstances beyond his control.

The dean of the school or college in which the student is registered will determine whether a student may remain in residence after having been dropped from or having quit one or more courses.

Examinations

COMPREHENSIVE EXAMINATIONS

Only a student who is a candidate for honors is now required to take a comprehensive examination. This examination is in the field of the student's major.

QUIZZES

By action of the faculty, quizzes are not to be given during the last six days of any semester.

SPECIAL EXAMINATIONS

Special examinations for the removal of conditions and for advanced standing will be given in 1959 as shown below:

Monday, September 14

8:30 A.M.	11:00 A.M.
Economics	Education
Romance Languages	English
Zoology	German
2:00 P.M.	4:30 P.M.
Geology and Geography	Comparative Literature
Psychology	Greek
Art	Physics
Physical Education	Sociology

Tuesday, September 15

8:30 A.M.

Botany
Latin
Journalism

2:00 P.M.

Music
History
Mathematics
Political Science

11:00 A.M.

Chemistry
Business Administration
Philosophy
Dramatic Art

4:30 P.M.

Any examinations made
necessary by conflicts

A special examination may be taken as scheduled above by a student who has received the condition grade *Cond.* A student may take the examination with the class in the same subject at any regular term examination within one calendar year after he has made the grade of *Cond.*, provided he has no conflict with a course regularly taken by him in the term. A senior who makes a grade of *Cond.* in his last term of residence is allowed to take a special examination for removal of the *Cond.* by special arrangement between the instructor and the dean concerned. The grade *Cond.* becomes F if the student fails to pass a re-examination within one calendar year.

Special examinations for students who have been officially excused from regular examinations because of sickness, or who have been absent for some necessary cause and are therefore excused, may be held at suitable times fixed by the Central Office of Records and the instructors concerned. Such examinations must be taken within one calendar year of the date of absence, except for graduate students who may remove grade *Abs.* within one calendar year from the date of their next registration at the University.

To be entitled to take a special examination within a term, at the September period, or at a regular semester examination period, the student is required to file a written request in the Central Office of Records before the time for the examination.

Papers handed in at a special examination by students who have been officially excused from the regular examination will be graded by the usual system; all others will be marked "passed" or "failed."

REGULAR FINAL EXAMINATION

Regular written examinations are required at the end of each term in all courses except those whose nature makes written examinations unnecessary. *Approval of such exceptions must be secured in advance from the Dean of the Faculty.*

Papers written in final examinations are not to be carried away from Chapel Hill to be graded.

Final examinations except in laboratory practice may not be held at any time other than those specified in the preceding regulations.

No examinations may be held later than 7:00 P.M.

All examinations must be held in Chapel Hill.

In exceptional cases arrangements can be made to take examinations *in absentia*. There is a fee of \$10.00 for each such examination. Applications for examinations *in absentia* should be directed to the dean of the school in which the student is registered.

Examinations should be limited to a period of three hours. In courses in which a considerable portion of the examination is of a practical nature the instructor may extend the time at his discretion.

The examination schedule at the end of each semester having once been fixed cannot be changed, and the examination must be held at the time shown on the schedule.

No students other than the following may take the examination in any course: (1) regularly enrolled members of the class whose names have been reported from the Central Office of Records to the instructor as having registered in due form for the course; and (2) those whose names have been reported from the Central Office of Records as having the right to take special examinations in that course.

Any students absent from an examination without an official excuse, from the University Physician or his dean, or present and failing to submit examination papers is reported absent. This mark is equivalent in every respect to grade F or failure and is so recorded in the Central Office of Records. Authorized excuses from an examination are issued by the Central Office of Records.

Each student is required to subscribe his name to the following pledge or its equivalent on every paper: "I hereby certify that during this examination I have neither given nor received aid." The instructor will not report a grade for any student whose examination paper lacks this pledge.

Standing

After the close of each semester, reports of the standing of all students in all their studies are sent to parents or guardians. The reports are based upon the following system of marking:

UNDERGRADUATE AND

PROFESSIONAL

A—Excellent

B—Good

C—Fair

D—Passed

F—Failed

Cond.—Conditioned

Inc.—Work Incomplete

Abs.—Absent from Examination

GRADUATE

P—Passed

F—Failed

Inc.—Work Incomplete

Abs.—Absent from Examination

Dean's List (Honor Roll) —To be eligible for the Dean's List (Honor Roll), a student must make a grade of B or better on each of the courses he is taking in a given semester and be carrying an academic load of 15 or more semester hours (exclusive of Physical Education).

The grade Inc. may be converted into one of the other grades by completing within a period of one calendar year such additional assignments as may be required by the instructor in the course. A grade of Inc. not so converted becomes F.

When a student has shown marked deficiency in the use of English in any course, his grade in that course may have attached a "composition condition" (cc). This condition, while not affecting a student's eligibility for continuance in the University, must be removed before final credit will be allowed. A student who receives such a condition must take a diagnostic test before the middle of the following semester, and his registration for the next semester following this semester may not be completed until he has taken the test. If this test shows that the student needs to take a course or laboratory work to remove his condition, he must proceed actively and systematically toward the removal of his condition in the second semester following that in which he receives it. The Secretary of the Committee on Conditions in English Composition will determine those who need remedial work.

A student must attain a grade of D to pass in any study. Grade Cond. indicates that the student is conditioned but may remove the deficiency by special examination as explained above. A satisfactory re-examination changes the grade Cond. to D. Students receiving grade F must repeat the course to receive any credit for it.

Any student, after conference with the instructor concerned, may appeal from a "course grade" by presenting the appeal, in writing, to the dean of his school. Such appeals must be made not later than the last day of classes of the next succeeding regular semester. The dean will refer the appeal to the administrative board of his school and the chairman of the department concerned. Final decision will be made by the administrative board and no change of grade will be made except as a result of decision by the administrative board.

ELIGIBILITY FOR GRADUATION

To be eligible for graduation, a student enrolled before September, 1947, must secure a grade of C or higher on at least half of his work; a student first enrolled in or after September, 1947, must secure an over-all average of C.

Interpretation of this ruling:

(1) A student who completes the required courses but with grades which do not entitle him to his degree will be allowed to take additional *junior-senior courses* until he meets the requirement of the rule.

(2) A transfer student with advanced standing will come under this rule. In and after September, 1947, an over-all C average in the work presented is required for admission to advanced standing.

In the transfer of grades from another institution, work with the lowest passing mark is counted as work passed but not as hours credited toward graduation.

(3) To be eligible for graduation, a student must meet the requirements for the degree as they are defined by the college or school which awards it.

(4) Every candidate for a degree must present at least a C average (one quality point for each semester hour undertaken). *For students admitted prior to September, 1959*, the result obtained by dividing the total number of quality points by the total number of semester hours undertaken must be 1.0 or higher, and the quality points per semester hour are as follows: A=3 quality points, B=2 quality points, C=1 quality point, all others=no quality points. *For students admitted in and after September, 1959*, the result obtained by dividing the total number of quality points by the total number of semester hours undertaken must be 2.0 or higher, and the quality points per semester hour are as follows: A=4 quality points, B=3 quality points, C=2 quality points, D=1 quality point, F=no quality points.

(5) Hygiene grades are counted toward quality points but physical education grades are not counted.

(6) Grades transferred from another institution are not considered in computing the C average for graduation.

RANK BY CLASSES

A student to be ranked as a sophomore must have passed at least twenty-four semester hours; to be ranked as a junior, at least fifty-two semester hours; to be ranked as a senior, at least ninety semester hours.

During his fourth semester a student is transferred to the Upper College of his choice provided: (1) he has no entrance deficiencies;

(2) he has completed, or has in progress, all of his freshman requirements; (3) he has a quality point average of 1 (C); (4) he has taken the English Proficiency Test.

The normal period of enrollment in the General College is four semesters. The maximum period, in the absence of exceptional circumstances clearly justifying extension by special action, is six semesters. A student with an academic average below C and enrolled in the General College after his fourth semester must limit his registration to those courses which are listed in the Catalogue as General College requirements or electives.

ELIGIBILITY FOR CONTINUED RESIDENCE

An undergraduate student, in order to be eligible to continue in the University, must qualify according to the following requirements: freshmen must pass six semester hours³ in the first semester and twenty semester hours³ in the first academic year. Sophomores (and others in the General College except freshmen) must pass nine semester hours³ in each semester and twenty-one semester hours³ in every two consecutive semesters. A student shall be transferred from the General College to a school in the Upper Division (except the School of Business Administration) only when he has attained an over-all average of C. For transfer to the School of Business Administration, a student must have a C average or better on all Business Administration and Economics courses taken as well as a C or better average on his total credit hour load. A student shall not continue in the General College for more than six semesters unless the Dean of the General College authorizes the continuance in writing with a statement of reasons for the special action. To remain eligible in the College of Arts and Sciences, School of Education, and the School of Journalism, a student must pass a minimum of nine semester hours in any one semester and twenty-one semester hours in any two consecutive semesters. To remain eligible in the School of Business Administration, a student must: (1) pass at least 21 semester hours (seven full courses) in his last two semesters of residence, and at least nine semester hours (three full courses) in his last semester of residence; (2) maintain a C or better average each semester on hours taken in Business Administration and Economics subjects; (3) maintain a C or better average each semester on total hour load; (4) maintain a cumulative C or better average on all Business Administration and Economics hours taken; and (5) maintain a cumulative C or better average on all hours taken.

Ineligible persons are not to be considered members of the University. To restore eligibility a student must complete a prescribed

3. Not including required physical education.

amount of satisfactory work in the summer session of this University or through the University's Correspondence Bureau. An additional full course over the minimum number of courses required to remain in the University must be taken if the student is to make himself eligible by correspondence or summer work in this University. A student may not make himself eligible by taking work at another institution, unless approval by his dean and the Director of Admissions is secured in advance.

In case a student has been handicapped by circumstances beyond his control, he may, with the permission of his dean, appeal in writing for readmission by the Readmissions Committee of the school in which he was last enrolled.

No student who fails to qualify under these regulations may be readmitted to any division of the University except by vote of the Readmissions Committee of the school in which he was last enrolled. The student must present written application for readmission to his dean before the opening of any term. Action upon such application is taken by the proper Readmission Committee. A student not in residence at the end of the preceding semester must apply for readmission through the Director of Admissions.

Withdrawals

If a student wishes to withdraw at any time other than the end of a term, a formal withdrawal, which is prerequisite to honorable dismissal or re-entrance to this institution, must be approved by his dean. Such a withdrawal will be approved only after full investigation of the circumstances and after the lapse of twenty-four hours from the time the first application is filed with the dean. The withdrawal form after approval by the dean must be filed promptly with a recorder in the Central Office of Records, No. 1 Hanes Hall.

If a student withdraws after the middle of the semester and is reported as below passing in three or more courses, that semester will be counted as a semester in residence in all computations of his requirements for readmission. If a student withdraws before the middle of the semester, it will be left to the discretion of the dean as to whether or not that semester is to be counted as a semester in residence. The dean's decision will be indicated specifically on the form used for withdrawal.

To a student withdrawing within the first nine weeks of a semester, tuition is refunded on a pro-rata basis.

Fraternities

Students may join fraternities after registration at the opening of any semester, provided they are eligible under the special regulations of the faculty as announced by the Standing Committee on Fraternities.

Transcripts of Record

Honorable dismissal has reference to conduct and character only. It will not be granted unless the student's standing as to conduct and character is such as to entitle him to continue in this University. Furthermore, in every statement of honorable dismissal full mention will be made of any probation, suspension, or other temporary restriction imposed for unsatisfactory conduct which is still in force when the papers of dismissal are issued.

Statement of record has reference to the recorded results of a student's work in the classroom. It will in every instance contain all the important facts pertaining to the student's admission, classification, and scholarship. In particular, no partial or incomplete scholastic record (for example, with failures omitted) will be given without clear evidence that it is partial or incomplete. If the student's scholarship has been such as to prevent his continuance in this University or to make him subject to any probation, suspension, or other temporary restriction which is still in force at the date of the record, a plain statement of any and all such facts will be included. Such information will be given as will make clear the system of grades employed, the number of exercises a week devoted to each course, etc.

Transcripts of record, except the first, which is furnished without cost, will be made upon payment of one dollar (\$1.00) for each copy desired.

Intercollegiate Athletics

The University is a member of the Atlantic Coast Conference, and its rules necessarily conform to the rules of the Conference.

Regulations Governing Dramatic, Musical, Debating, and Other Leading Activities of the Student

1. No student will be allowed to take part in dramatic, musical, debating, oratorical, or similar events entailing absence from the University if his parents (or guardian) object to such participation.

2. Any student who was in attendance at the University during a previous semester must have passed, during his last semester of attendance, satisfactory examinations upon at least six hours, or their

equivalent, before he will be allowed to represent the University in any dramatic, musical, debating, oratorical, or similar event of a public nature, or in any other leading activity.

3. Any student reported as deficient in a majority of his classes during the course of any semester may be prohibited by the dean of his school from participating in any dramatic, musical, debating, oratorical, or similar event, or any other leading activity, until such deficiency is removed.

4. There shall be a scholastic requirement of twenty-two semester hours, half C grade or better, during the preceding two semesters of residence, or twenty-five semester hours, half C grade or better, if summer school or correspondence work is necessary in addition to two regular terms.

5. No team or club will be allowed to be absent from the University more than ten lecture days in any semester.

Part Three

THE COLLEGES AND THE SCHOOLS

THE GENERAL COLLEGE

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

CECIL SLATON JOHNSON, A.B., A.M., Ph.D., *Dean*

The Administrative Board^{1, 2}

ELIE MAYNARD ADAMS, Ph.D., *Professor of Philosophy* (1963)

PAUL EDMONDSON SHEARIN, Ph.D., *Professor of Physics* (1963)

WILLIAM ADOLPH TERRILL, Ph.D., *Assistant Professor of Accounting* (1959)

JOHN GOTTHOLD KUNSTMANN, Ph.D., *Professor of German* (1960)

NORMAN ELLSWORTH ELIASON, Ph.D., *Professor of English* (1960)

SAMUEL SHEPARD JONES, Ph.D., *Burton Craige Professor of Political Science* (1961)

CARL HAMILTON PEGG, Ph.D., *Professor of History* (1962)

MICHAEL ARENDELL HILL, JR., A.M., *Professor of Mathematics* (1962)

FRANK MARION DUFFEY, Ph.D., *Associate Professor of Spanish* (1962)

The Committee of Advisers in the General College

³CLAIBORNE STRIBLING JONES, Ph.D.,
Associate Dean

³FREDERICK CARLYLE SHEPARD, Ph.D.,
Associate Dean

JAMES ROY CALDWELL, Ph.D.

RAYMOND HOWARD DAWSON, Ph.D.

HENRY CHARLES HOUSE, JR., Ed.D.

ROBERT A. HOWARD, A.M.

ROBERT LAMBERT MCKEE, Ph.D.

ISAAC NEWTON REYNOLDS, Ph.D.

STUART WILSON SECHRIST, A.B.

GEORGE EDWARD SHEPARD, Ed.D.

WILLIAM RINGGOLD STRAUGHN, Ph.D.

GEORGE VANDERBECK TAYLOR, Ph.D.

RANSOM THEODOR TAYLOR, Ph.D.

General Statement

During his freshman and sophomore years in the University at Chapel Hill every student is a member of the General College with the exception of students entering the schools of Pharmacy, Nursing, and the Dental Hygiene Program of the School of Dentistry. The studies in the General College are intended: (1) to offer experience in a sufficient variety of basic and liberal subjects to con-

1. The Chancellor, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

2. Dates indicate expiration of terms.

3. Representative of the Advisers on the Administrative Board.

stitute the foundations of that general education which is regarded as essential to balanced development and intelligent citizenship, (2) to supply opportunities for the discovery of intellectual interests and occupational aptitudes, and (3) to provide preparation for later collegiate or professional training. These studies are, specifically, English composition and literature, a foreign language, natural science, social science, mathematics or Latin or Greek, and hygiene. The options within these requirements appear below in the summaries of the several programs. The student thus takes certain courses basic to all programs of study and in addition chooses other courses in anticipation of advanced work in special fields or on the basis of other personal considerations. If he knows what his later program of study is to be, he can in nearly all cases choose a subject in that field as part of his work in the General College. If he does not know what his program is to be, he may take the general program leading to a degree in arts and sciences, business administration, journalism, or education with the assurance that he can reach a decision during his undergraduate career and make necessary changes with minimum loss of time.

The members of the General College are of four distinguishable but overlapping types: (1) those who will proceed to the usual academic degrees at the end of four years, (2) those who will enter professional schools after three or four years, (3) those who are preparing for teaching or scientific investigation, or both, and (4) those who will take less than a complete academic program. Through the advisers the General College attempts to assist each student in appraising his qualifications and objectives and, within the limits set by its standards and resources, undertakes to adapt its offerings to his interests and needs. Thus a deficiency in a foreign language or mathematics may be overcome by taking the elementary courses. In the converse case of mastery in preparatory school or otherwise of work offered in college, the student is encouraged to meet the collegiate requirement by examination. Those who have responsibilities which limit the time available for studies are allowed to take less than the normal academic program. Those who attain distinction in the normal registration are permitted to take additional courses so as to enable them to enrich their programs or to graduate at an earlier date. By such means the College encourages each student to start with the work which he is prepared to do and to go forward with it in the way that is most appropriate in his individual case.

Upon satisfactory completion of the work of the General College, the student will normally enter one of the divisions of the University which administers the curricula of the junior and senior years. The College of Arts and Sciences offers curricula in (1) the liberal arts subjects, (2) mathematics, chemistry, geology, physics, and bacteri-

ology (each with its special Bachelor of Science degree), (3) pre-law, pre-medical, and pre-dental programs, with and without the A.B. degree, (4) medical technology, and (5) industrial relations. The School of Business Administration presents curricula preparatory for the various careers in (1) business, (2) foreign trade and the consular service, (3) other governmental services, and (4) law. The School of Education offers curricula leading to careers in teaching, administration, and supervision. The School of Journalism provides training for newspaper work and related careers. The School of Public Health offers training in public health and in public health nursing. The School of Medicine offers a program in physical therapy.

Naval R. O. T. C.

The Naval R. O. T. C. is an officer candidate training program through which qualified students may obtain commissions in the U. S. Navy or Marine Corps, or in their reserve components.

The courses taken in the Department of Naval Science by a student who completes the normal program prescribed by the Naval R. O. T. C. for four academic years represent twenty-four semester hours or eight semester courses. All of these courses are credited in the student's permanent record. They may be substituted for five elective courses required for graduation, two in the General College and three in the upper colleges as follows: (1) In the General College the first year naval science courses may be substituted for one elective and the second year naval science courses may be substituted for one elective. (2) In the upper colleges three naval science courses may be substituted for three electives. In the College of Arts and Sciences these substitutions must involve one elective in the department allied with the major and one non-divisional elective, and in the other undergraduate schools of the University such distribution as each school may require. The other naval science courses are credited as net additions to the minimum requirements for graduation.

Marine Corps Platoon Leaders Class

The Marine Corps Platoon Leaders Class is an officer candidate program designed to train men who can assume responsibility as commissioned officers. The training is given in two summer training periods of six weeks each. At the completion of that training, and upon graduation, the trainee may be commissioned as an officer in the Marine Corps Reserve.

The Marine Corps Platoon Leaders Class does not have class work or drill during the University's normal academic year. The University allows elective credit, counted as part of the requirements for graduation, to students who complete the summer training courses with

marks corresponding to the academic grade of C. The credit is three semester hours for each six weeks of summer training.

Students interested in enrollment in this program may apply to the Marine Officer-Instructor at the Headquarters of the Naval R. O. T. C.

Air Force R. O. T. C.

The Air Force R. O. T. C. program is an officer candidate program through which qualified students may earn commissions in the U. S. Air Force or the U. S. Air Force Reserve. The courses taken in the Department of Air Science by a student who completes the normal program prescribed by the Air Force R. O. T. C. for four academic years represents twenty-four semester hours. During the freshman and sophomore years there are four two-hour courses; in the junior and senior years there are four courses of four semester hours each. All of these courses are credited in the student's permanent record. They may be substituted for five elective courses required for graduation, two in the General College and three in the upper colleges as follows: (1) In the General College the first year air science courses may be substituted for one elective and the second year air science courses may be substituted for one elective. (2) In the upper college courses three air science courses may be substituted for three electives. In the College of Arts and Sciences these substitutions must involve one elective in the department allied with the major and one non-divisional elective, and in the other undergraduate schools of the University such distribution as each school may require. The remaining required air science courses are credited as net additions to the minimum requirements for graduation.

Students who enter the Air Force R. O. T. C. program are expected to continue throughout the first two years. At the end of two years they may elect to request enrollment in the advanced program or to withdraw. Those who take the third year's work enter upon it with the understanding that normally they must take both the third and fourth years.

Credit by Examination

Provision is made for students who present proper credits to take substantiating examinations for advanced standings in whatever subjects the Dean of the General College may deem advisable. This opportunity is open to those who have taken, in high or preparatory school, work which is approximately equivalent to some of the studies in the General College and, at the discretion of the Dean, to others who present evidence warranting an examination. The passing of such examinations will give course credit without grade and enable

the student to take during his first year the next course in the subject on which he is examined or to take other subjects not ordinarily pursued by freshmen. Formal application for examinations of this sort should be made to the Dean of the General College fifteen days in advance of the date of registration so that he can arrange for the examinations. No charge is made for these examinations. There is a charge, however, for credits obtained by examination.

If a student by a placement test or by some other criterion is placed in advanced work and if he completes the advanced work (one or more courses where the courses are in sequence) with an average of C or better, he will be given credit for the omitted freshman work without grade; if he completes the advanced work with less than a C average, he will be relieved of the requirement of the freshman work omitted but will not receive hour credit for the omitted work.

Transfer to An Upper College

The work in the General College normally requires two years. Toward the end of his fourth semester the student is transferred to the upper college of his choice provided he has met the following requirements: (1) has no entrance deficiencies, (2) has passed or has in progress all required freshman work, including hygiene and physical education, (3) has earned a quality point average of 1.0 (C), exclusive of physical education, and (4) has received a passing or failing grade on the English Proficiency Test.^{3a} A student may be transferred at his request at the end of the *first* year in the General College, provided he (1) has no entrance deficiencies, (2) has passed all freshman work (37 semester hours) towards the degree, including hygiene and physical education, (3) has a quality point average of 2.0 (B) or above, (4) has passed the English Proficiency Test, and (5) is acceptable to the college or school of his choice.

A student who has completed *four* semesters in the General College and has not been transferred to an upper college because of failure to meet the minimum quality point average of 1.0 (C) will be allowed to continue his registration in the General College, but will be permitted to register only for those courses listed in the catalogue as General College required or elective courses. A student who has completed *six* semesters in the General College and has not met the minimum requirements for transfer to the upper college will not be allowed to continue his studies in the General College without applying for and receiving the written permission of the Dean of the General College setting forth the restrictions under which he will be allowed to register.

^{3a}. A student transferring to the School of Business Administration must, in addition to the above, have a C average on all courses in Economics and Business Administration taken in the General College.

Guidance of Students in the University

The University conceives education to be directed toward the best development of each individual and accordingly seeks to study each student in terms of his background of experience and his potentialities of interest, ability, and cultural needs. Each student is the special charge of a General College adviser.

Before admission of the student, the University obtains from him and his school principal information concerning his personal history. This information is made the basis of a cumulative personal record of each student. To it are added placement test scores, results of physical examination, grades in courses, record of activities, etc. This record is available to the student's General College adviser from the time the applicant is accepted until he is transferred to an upper college. Then it is available to the departmental adviser in the major fields of study chosen and to the vocational adviser.

In this way the University tries to deal with each student from admission to graduation as an individual personality about whom a responsible adviser has the needed information. In using this information the personal interest, and experience of the adviser may be supplemented in case of special need by members of the general administration competent in such special fields as health, financial aid, vocational guidance, and religious and moral problems.

Advanced Sections for General College Honor Students

Advanced sections of several freshman and sophomore courses are open to qualified students. Freshmen are assigned to these sections according to entrance qualifications and placements; for sophomores a B average or consent of the sponsoring department will suffice. In these sections there is less drill in fundamentals (which is left to the student) and more emphasis upon the meaning of the material, its relationship to other fields, advanced topics, and recent research. Obviously this work is more demanding, but it is more rewarding for those who can handle it. Such instruction is designed to engage the attention of superior students and develop their initiative and self-reliance. Advanced sections are labelled with the suffix "A" (as in History 21A or Chemistry 43A) and are recorded as such in the student's permanent record.

For incoming freshmen there is a Freshman Honor Student Program, in which about fifty first-year students are invited to take certain courses as a group. These courses are Social Science 1 and 2, English 2 and 21, and Mathematics 15 and 16. The Honor Students also share in a monthly colloquium. Successful completion of this program is noted on the student's record with his other honors and distinctions.

For detailed information write the Secretary of the Chancellor's Committee on Superior Students, The General College; a brochure is available.

Programs of Study in Effect in 1958-1959

With a view to the most effective preparation of those who will proceed to degrees through any of the regular curricula, the General College offers programs of study as follows:

Bachelor of Arts

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose two courses:	{ Astronomy 31 Chemistry 11-12 or 11-21 Geology 1 or 41, 42 Geography 38 Physics 20, 24, 25 Botany 1, Zoology 1
Choose one sequence:	{ Mathematics 7-8 or 11-12 or 15-16 4Greek 3-4 (or 1-2) 4Latin 3-4 (or 1-2)	Choose one sequence:	{ 5French 3-4 5German 3-4 5Greek 3-4 5Latin 3-4 5Spanish 3-4 5Russian 1-2

SOPHOMORE YEAR

English 21

Foreign Language: Course 21 in the language begun in the freshman year.

Social Sciences: One course chosen from the social science courses included in the list of sophomore electives on page 148.

Natural Science or Mathematics: One course in natural science or one course in Mathematics 31 or 32 or its equivalent. These with freshman courses in science must include one course in a physical science (astronomy, chemistry, physics, geology, geography) and at least one course in a biological science (bacteriology, botany, zoology, psychology). Selections may be made from the natural science courses included in the list of sophomore electives on page 148.

Electives: Three courses from the list of sophomore electives on page 148.

Physical Education 3, 4

**CORRECTION:— SIX SOPHOMORE
ELECTIVES ARE REQUIRED RATHER
THAN THE THREE INDICATED
IMMEDIATELY ABOVE.**

4. Students who choose Greek or Latin in this group must choose a modern foreign language to meet the requirement in foreign language. Courses 1-2 may be taken by students who did not have classics in high school.

5. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

Bachelor of Arts in Education (Secondary)

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one sequence:	{ Mathematics 7-8 or 7-10 or 11-12 or 15-16 6Greek 3-4 (or 1-2) 6Latin 3-4 (or 1-2)
Choose one sequence:	{ Chemistry 11-12 or 11-21 Physics 24-25	Choose one sequence:	{ 7French 3-4 7German 3-4 7Greek 3-4 7Latin 3-4 7Spanish 3-4 7Russian 1-2
OR			
Any two courses of these:	{ Astronomy 31 8Botany 1 or Zoology 1 Botany 41, 42 Geography 38 Geology 1 or 41, 42 Mathematics 31 or 34 Physics 20 Zoology 41, 42		

SOPHOMORE YEAR

Required:	{ English 21 Foreign language 21 (or 3-4 of language begun in the freshman year) One course in natural science, which with the freshman courses in science, must include one course in physical science and one course in biological science. Physical Education 3, 4
Choose one course:9	{ Economics 31-32 Anthropology 41 History 21, 22, 41, 42, 44, 45, 46, 47, 48, 49 Philosophy 21, 22, 41, 42 Political Science 41, 42, 51, 52 Sociology 51, 52, 53 (Rural Sociology 53)

Electives: Six courses from the list of sophomore electives on page 148.

6. Students who choose Greek or Latin in this group must choose a modern foreign language to meet the requirement in foreign language. Courses 1-2 may be taken by students who did not have classics in high school.

7. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

8. Students who wish to take further work in botany and zoology should choose as their first courses in these areas Botany 41 or Zoology 41 instead of Botany 1 or Zoology 1.

9. Students who desire to teach in the field of social science in high school should choose History 21, 22 and Political Science 41. Two of these will count as electives.

Bachelor of Arts in Education (Elementary)

FRESHMAN YEAR

Required: { English 1-2
 Social Science 1-2
 Hygiene 11
 Physical Education 1, 2
 One course from the list of electives on page 148.

Choose one sequence: { Mathematics 7-8 or 7-10 or 11-12 or 15-16
 10Greek 3-4 (or 1-2)
 10Latin 3-4 (or 1-2)

Choose one course: { Chemistry 11-12 or 11-21
 Astronomy 31
 Botany 1 or Zoology 1
 Geology 1 or 41, 42
 Physics 20

Choose one sequence: { 11French 3-4
 11German 3-4
 11Greek 3-4
 11Latin 3-4
 11Spanish 3-4
 11Russian 1-2

SOPHOMORE YEAR

Required: { English 21
 Foreign language 21 (or 3-4
 of language begun in freshman year)
 Geography 38
 History 21, 22
 Music 41
 One course in natural science which, with the freshman courses in science, must include one course in physical science and one course in biological science.
 Physical Education 3, 4

Electives: Three courses from the list of sophomore electives on page 148.

10. Students who choose Greek or Latin in this group must choose a modern foreign language to meet the requirement in foreign language. Courses 1-2 may be taken by students who did not take one of these languages in high school.

11. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

Bachelor of Science in Health Education

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one sequence:	{ Mathematics 7-8 or 7-10 or 11-12 or 15-16
Choose one:	{ Botany 41 Physics 20	Choose one sequence:	{ ¹² French 3-4 ¹² German 3-4 ¹² Spanish 3-4 ¹² Russian 1-2
Choose one:	{ Elective from page 148		

SOPHOMORE YEAR

Required:	{ English 21 Humanities elective from page 148 Foreign Language 21 (or 3-4 of foreign language begun in freshman year) Chemistry 11-21 Political Science 41 Physical Education 3, 4	Choose two:	{ Anthropology 41 or Education 41 Psychology 26 or Sociology 52 or 62
		Choose one:	{ Elective from page 148

Bachelor of Science in Science Teaching (Secondary)

FRESHMAN YEAR (Same as for Bachelor of Arts in Education, Secondary)

SOPHOMORE YEAR

Required:	{ English 21 Foreign language 21 (or 3-4 of foreign language begun in freshman year) Physical Education 3, 4		
Choose one course:	{ Economics 31-32 Anthropology 41 History 21, 22, 41, 42, 44, 45, 46, 47, 48, 49 Political Science 41, 42, 51, 52 Philosophy 21, 22, 41, 42 Sociology 51, 52, 53 (Rural Sociology 53)		
Choose one sequence:	{ Astronomy 31, 32 Botany 41 and Zoology 41 Botany 41, 42 Zoology 41, 42 Chemistry 11-12 or 11-21, or 31 and 43 or 44 Geology 1 or 41 and Geography 33 Geology 41, 42 Physics 24, 25 or 34, 35	Electives: Five courses from the list of sophomore electives on page 148	

12. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

Bachelor of Arts in Journalism

The freshman and sophomore requirements are the same as those stated for the degree of Bachelor of Arts.

Pre-journalism students are advised, but not required, to elect Political Science 41 in the sophomore year.

Bachelor of Science in Business Administration

FRESHMAN-SOPHOMORE YEARS

	<i>Minimum Hours</i>	<i>Semester Courses</i>
English 1-2, 21	9	3
13Any Foreign Language 3, 4, and 21 (an approved humanities elective ¹⁴ , such as philosophy, may be substituted for 21)	9	3
Natural Science	9	3
Choose three, including one biological and one physical science	{	Biological Science
		Botany 1 or 41
		Psychology 26, 27
		Zoology 1 or 41
		Physical Science
		Astronomy 31
		Chemistry 11-12 or 11-21
		(Note: No Credit for 11 without 12 or 21.)
		Geography 38
		Geology 1 or 41
Physics 20 or 24 or 25		
Mathematics		
Mathematics 31		
Mathematics 32		
Mathematics 34		
Mathematics 7-10 or 8, or 11-12, or 15-16	6	2
Social Science 1-2	6	2
Political Science 41	3	1
Economics 31-32	6	2
Business Administration 71-72	6	2
Hygiene 11	2	½
Physical Education 1, 2, 3, 4	4	
2 electives from the list on page 148	6	2
	—	—
	66	20½

13. If two years of language have been taken in high school, this language may be continued at the University as language 3, 4, and 21 (or an approved humanities elective); however, if a new language is chosen, language 1, 2, 3, and 4 must be taken. If no language has been taken in high school, language 1, 2, 3, 4, and 21 (or an approved humanities elective) must be taken.

14. Approved humanities electives include: Philosophy 21, 22, 41, 42; Art 41, 42, 43; Classics 31, 32; English 22, 23; Music 41; and Religion 28.

Bachelor of Science in Industrial Relations

(See page 162)

Bachelor of Science in Chemistry

FRESHMAN YEAR

Chemistry 11-21 or 11-12
 English 1-2
¹⁵German 3-4
 Social Science 1-2

Mathematics 7-8 or 11-12 or 15-16
 Hygiene 11
 Physical Education 1, 2

SOPHOMORE YEAR

English 21
¹⁵German 21
 Chemistry 31 if 21 was not
 taken, 43, 44

Mathematics 31, 32
 If Mathematics 15-16 were taken in
 the freshman year omit Mathematics
 31.
 Physics 24, 25 or 34, 35
 Physical Education 3, 4

Bachelor of Science in Geology

FRESHMAN YEAR

Required: {
 Geology 1 or 41-42
 English 1-2
 Mathematics 7-8 or 15-16
 Social Science 1-2
 Hygiene 11
 Physical Education 1, 2

Choose one: {
¹⁶French 3-4
¹⁶German 3-4
¹⁶Spanish 3-4
¹⁶Russian 1-2

SOPHOMORE YEAR

Required: {
 English 21
 Chemistry 11-21
 Physics 24, 25
 One course chosen from the
 social science courses included
 in the list of sophomore
 electives on page 148.
 Physical Education 3, 4

Choose one: {
¹⁶French 21
¹⁶German 21
¹⁶Spanish 21

Electives: One course in the
 humanities and one other course
 chosen from the sophomore
 electives on page 148.

15. Students who in high school had two years of a language other than German may meet the requirement with German 1-2, 3, 4.

16. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

Bachelor of Science in Mathematics**FRESHMAN AND SOPHOMORE YEARS**

Mathematics 7-8 or 11-12 or 15-16 and 31, 32, 33; or 31*, 32*; or 34, 35
 English 1-2, 21
 Social Science 1-2
 French or German 3-4, 21 (or 1-2, 3, 4)
 Humanities elective—one course
 Sophomore social science elective—one course
 Physics 24-25 or 34-35; or Chemistry 11-12 or 11-21
 Hygiene 11
 Physical Education 1, 2, 3, 4
 Free electives to bring total semester hours credit for the first two years to at least 66 (including 6 hours credit in Hygiene and Physical Education) and the total number of full courses to at least 18.

Bachelor of Science in Physics**FRESHMAN YEAR**

Required:	{	English 1-2	Choose one:	{	17German 3-4
		Chemistry 11-21 or 11-12			or
		Mathematics 11-12 or 15-16			17French 3-4
		Social Science 1-2			17Russian 1-2
		Hygiene 11			
		Physical Education 1, 2			

SOPHOMORE YEAR

Physics 34, 35	Mathematics 34, 35, or equivalent
English 21	Physical Education 3, 4
French 21 or German 21 or Russian 3-4	

Three electives: From the list of sophomore electives on page 148 choose at least one from the Division of Social Sciences and at least one from the Division of the Humanities.

Bachelor of Science in Medicine**or****Bachelor of Science in Dentistry****FRESHMAN YEAR**

Required:	{	English 1-2	Choose one:	{	19French 3-4
		18Chemistry 11-21			19German 3-4
		Mathematics 7-8 or 11-12 or 15-16			19Greek 3-4
		Social Science 1-2			19Latin 3-4
		Hygiene 11			19Spanish 3-4
		Physical Education 1, 2			19Russian 1-2

17. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

18. Alternatively, 11-12 to be followed by Chemistry 31 in sophomore year.

19. Students placed in course number 1 of a new language may meet the freshman and sophomore requirements with 1-2, 3, 4, provided that they have no entrance deficiency in foreign language.

SOPHOMORE YEAR

English 21 and 22 or 23 or 26 or Music or Art or Religion 28	Electives: two courses
Russian 3-4 or	Chemistry 43
French 21 or German 21 or Spanish 21	Botany 41
French 22 or German 22 or Spanish 22 or humanities elective.	Physics 24, 25 or Zoology 41, 42
	Physical Education 3, 4

NOTE: A third year of undergraduate work is necessary before admission to the School of Medicine or the School of Dentistry. The requirements are Psychology 26, Chemistry 61 and 64, Zoology 41, 42 or Physics 24, 25, and four elective courses.

Bachelor of Science in Public Health

Foundation training for students interested in careers in public health is available through the School of Public Health and, cooperatively, through the School of Education. (See also pages 168, 207, and catalogue of the School of Public Health.) The requirements for the first two years leading to the B.S.P.H. follow.

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene Physical Education 1, 2	Choose one	{ Mathematics 7-8 or 7-10 or 11-12 or 15-16
Choose one:	{ Elective from page 148	Choose one:	{ 20French 3-4 20German 3-4 20Spanish 3-4 20Russian 1-2

SOPHOMORE YEAR

Required:	{ English 21 Humanities elective from page 148 Foreign Language 21 (or 3-4 of foreign language begun in freshman year) Chemistry 11-21 Political Science 41 Physical Education 3, 4	Choose one:	{ Anthropology 41 or Education 41 Psychology 26 or Sociology 52 or 62

Bachelor of Science in Medical Technology

(See page 161)

Bachelor of Science in Physical Therapy

FRESHMAN YEAR

Required:	{ English 1-2 Chemistry 11-12 or 11-21 Mathematics 7-8 or 11-12 or 15-16 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one:	{ 20French 3-4 20German 3-4 20Greek 3-4 20Latin 3-4 20Spanish 3-4 20Russian 1-2

20. Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language and provided, further, that they begin a new language in college. A student who has an entrance deficiency in foreign language should not take Russian.

SOPHOMORE YEAR

Required: { English 21
 Foreign language 21 (or 3-4 of language begun in freshman year)
 Psychology 26 and 28 or 27
²¹Physics 24, 25
²¹Zoology 41
 Physical Education 3, 4

Electives: Two courses from the list of electives on page 148. (Until September, 1959, one of these electives must be a social science course.)

Courses for the junior and senior years are taken in the Section of Physical Therapy of the School of Medicine. See the special catalogue of the Section of Physical Therapy for details of courses and for procedures on applications. This catalogue and additional information can be obtained from the Director, Curriculum of Physical Therapy, School of Medicine.

Bachelor of Science in Public Health Nursing

(See catalogue of the School of Public Health)

Bachelor of Science in Bacteriology

FRESHMAN YEAR

Required: { Chemistry 11-21
 English 1-2
 Mathematics 7-8 or 11-12
 or 15-16
 Social Science 1-2
 Hygiene 11

Choose one: { ²²German 3-4
²²French 3-4
²²Russian 1-2

Physical Education 1, 2

SOPHOMORE YEAR

English 21
 Foreign Language: Course 21 in the language begun in the freshman year.
 Chemistry 43
 Botany 41
 Zoology 41, 42
 Electives: One course chosen from the humanities courses in the list of sophomore electives on page 148 and two additional courses from any of the courses in this list.
 Physical Education 3, 4

²¹. Until September, 1959, Physics 20 and Zoology 41, 42 will be acceptable in lieu of Physics 24, 25, and Zoology 41.

²². Students may meet this requirement with courses 1-2, 3, 4, provided that they have no entrance deficiency in foreign language. A student who has an entrance deficiency in foreign language should not take Russian.

Sophomore Electives

Courses Proposed by Departments and Approved by the
Administrative Board of the General College

Those in boldface type will carry upper college credit for a restricted student provided they fit into the pattern of his degree requirements.

Anthropology	41
Art	41, 42, 43, 44, 46, 48, 55
Astronomy	31, 32
Botany	1, 41, 42, 43
Chemistry	11-12, or 11-21, 43, 44
Classics	Greek 1-2, 3, 4, 21, 22 Latin 1-2, 3, 4, 21, 22, 51, 52, 53 Classics 31, 32 (courses in English translation)
Dramatic Art	30
Economics	30, 31-32
Education	41
English	22, 23, 26
Geology	1 or 41, 42
Geography	38
German	1-2, 1L-2L, 3, 4, 21, 22, 31, 32
History	21, 22, 41, 42, 44, 45, 46, 47, 48, 49
Journalism	53
Mathematics	31, 32, 33, 34, 35, 36, 41, 51, 62
Music	14-15, 31-32, 41, 44-45, 55, 56
Philosophy	21, 22, 41, 42
Physical Education	77²³
Physics	20, 24, 25
Political Science	41, 42, 51, 52
Psychology	26, 27, 28
Radio	45
Religion	28, 30, 31, 45
Romance Languages	French 1-2, 3, 4, 14, 15, 21, 22, 50, 51, 52 NOTE: 21 is to count as an elective only when General College language requirements are met by 1-2, 3, 4. Spanish 1-2, 3, 4, 14, 15, 21, 22, 50, 51, 52 NOTE: 21 is to count as an elective only when General College language requirements are met by 1-2, 3, 4.
Russian	1-2, 3, 4
Sociology	51, 52, Rural Sociology 53
Zoology	1, 41, 42

23. After 1958-1959 the College of Arts and Sciences will not accept Physical Education 77 as a sophomore elective except for majors in Physical Education.

A student planning to major in Physical Education in the School of Education should take not only Physical Education 77 but also 65 or 66 or 67 not later than the fifth semester if he is to be able to work in the state certification requirements.

THE COLLEGE OF ARTS AND SCIENCES

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean*

GEORGE MILLS HARPER, Ph.D., *Associate Dean*

GORDON BAYLOR CLEVELAND, Ph.D., *Adviser*

FRANK MARION DUFFEY, Ph.D., *Adviser*

VICTOR AUGUST GREULACH, Ph.D., *Adviser*

ROBERT MOATS MILLER, Ph.D., *Adviser*

The Administrative Board^{1, 2}

FREDERIC NEILL CLEVELAND, Ph.D., *Professor of Political Science* (1960)

ROY LEE INGRAM, Ph.D., *Professor of Geology* (1960)

RICHMOND PUGH BOND, Ph.D., *Kenan Professor of English* (1961)

SAMUEL M. HOLTON, Ph.D., *Associate Professor of Education* (1961)

JAMES CARLTON INGRAM, Ph.D., *Associate Professor of Economics* (1962)

HERBERT WILLIAM REICHERT, Ph.D., *Associate Professor of German* (1962)

CHARLES EDWIN JENNER, Ph.D., *Associate Professor of Zoology* (1962)

EDWARD MCGOWAN HEDGPETH, M.D., *Associate Professor of Medicine and University Physician* (1962)

JAMES EDWARD KING, JR., Ph.D., *Associate Professor of History* (1963)

EUGEN MERZBACHER, Ph.D., *Associate Professor of Physics* (1963)

The College of Arts and Sciences consists of the faculty of the Division of the Humanities, the Division of the Natural Sciences, and the Division of the Social Sciences. It offers the junior and senior years of work leading toward non-professional bachelor's degrees in the areas of the humanities, the natural sciences, and the social sciences, and specialized pre-professional programs as a basis for advanced study in law, medicine, and dentistry.

Admission Requirements

Students are admitted to programs of study in the College of Arts and Sciences after they have successfully completed two years of college work either in the General College of the University or in another comparable, fully accredited institution. In addition to this minimum requirement, a student must have an academic average of C on all college work undertaken before he can be accepted in the College. He must also have had the pattern of courses required in the General College; or in the case of students transferring from another college

1. The Chancellor, the Dean of the Faculty, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

2. Dates indicate expiration of terms.

where this pattern was not offered, he must take during his residence in the College of Arts and Sciences those courses necessary to complete this pattern. A detailed statement is given on page 139 of this catalogue.

In exceptional cases provision will be made for students who cannot meet the exact requirements, either to take the needed work here in the General College or to take examinations to prove that they are able to carry the work in the College of Arts and Sciences. In no case however, will a degree be conferred without the completion of the full entrance requirements of this University either by examination or by certificate and the completion of the full course as required for the degree concerned.

Persons twenty-one years of age or over who cannot meet the requirements for admission as degree candidates or who wish to improve themselves professionally may, with the approval of the Dean of the College, be admitted as special students to pursue non-degree programs. Such students, except when special exception has been arranged, are required to carry a normal class load. They must pass all of their courses in order to be eligible to continue in the University.

Procedures and Regulations

Upon entering the College of Arts and Sciences, a student normally selects a degree program and chooses a subject matter in which he will do his major work or selects one of the special programs leading to the A.B.-LL.B., the S.B. in Medicine, the S.B. in Dentistry, or the S.B. in Medical Technology degree. Students working on one of these special programs and all special students are advised by the appropriate divisional adviser in the College. All other students are under the direction of advisers from the departments of their major subjects.

If required freshman courses are taken after the student begins his junior year, or if required sophomore courses are taken after he begins his senior year, only half credit is allowed. This does not apply to transfer students, provided they make up their deficiencies as soon as possible.

A student must carry fifteen semester hours of work in order to be regularly enrolled. He may carry more than seventeen semester hours of work only if his scholastic average for the preceding semester was C (1.0), and he may carry more than eighteen semester hours work only if his scholastic average for the preceding semester was B (2.0). In no case can he receive credit for more than twenty semester hours in a semester.

There is a requirement that the full work of the last year (10 courses) must be in residence at this University. A maximum of two courses taken by correspondence through the Extension Division of this University is allowed during the last year.

In order to remain eligible to continue in residence in the College, a student must pass a minimum of nine semester hours of work in any one semester and a minimum of twenty-one semester hours of work in any two consecutive semesters. The Readmission Committee of the College will consider only those cases where students have failed because of circumstances clearly beyond their control but which are remediable at the time of application for readmission.

In circumstances where students, under conditions that made the securing of academic credit impossible, have gained knowledge of the content of courses offered in the College, credit for such courses may be secured by special examination. Such an examination must be taken before the beginning of the last semester or full summer session of work toward a degree, and application for the examination must be approved by the department in which the course is offered and by the Office of the Dean of the College at least thirty days before the examination is taken. For students not in residence in the semester preceding their last one in residence, special provisions for application for the examination may be arranged by the Office of the Dean of the College.

It is the responsibility of each student in the College of Arts and Sciences to familiarize himself thoroughly with the regulations and requirements of the College. The departmental advisers and the staff of the Office of the Dean will gladly assist the student, but the responsibility for meeting the requirements of the College as they are stated in official publications rests with the individual student.

Military Science Credits

Students enrolled in the Air Force R. O. T. C. program or in the Naval R. O. T. C. program are required to carry nine semester hours of work above the minimum graduation requirements, leaving five semester courses of the military program which may replace courses in the non-military portion of the student's schedule.

In the College of Arts and Sciences three R. O. T. C. courses replace non-military science work, these courses being divided between allied electives and non-divisional electives. Such a student takes a minimum of 17 non-military science courses in the College. If the student fails to complete the four upper college courses, or if he takes any of these courses as electives, he will receive the following course credit: 0 for 1, 1 for 2, 2 for 3, 3 for 4. In no event will he receive upper college credit for more than three military courses (including the Marine Platoon Leader courses) while enrolled in the College.

Requirements for Degrees

The College of Arts and Sciences offers work leading to the degree Bachelor of Arts, to the degree Bachelor of Science, and to certain specialized and pre-professional degrees. The particular requirements for these degrees follow. For all degrees, an average of C and grades of C on at least eighteen semester hours of work in the major are required, and the particular pattern of courses required for the particular degree must be met.

Bachelor of Arts

To secure the degree of Bachelor of Arts, the student must meet each of the following requirements.

(a) A minimum of 126 semester hours credit, including hygiene and physical education.

(b) A minimum of forty courses, twenty of which should be of junior and senior standing.

(c) An over-all average grade of at least C. (For the method of computing the C average, see page 128, section on Eligibility for Graduation.)

(d) A distribution of courses during the first two years that corresponds to that of the General College of the University, and a distribution of courses in the junior and senior years that meets the student's particular major pattern for the requirement that approximately one-third of his work be in one major department, one-third in allied courses, and one-third in non-divisional courses.

Allied courses are those which are offered by the departments of instruction which appear in the same division as the department of major interest. Non-divisional courses are those which are offered by the departments of instruction outside the division which lists the department of major interest.

(e) A satisfactory major. A student must meet the department's requirements for an undergraduate major, as they are listed in the Description of Courses of this catalogue. He must secure a grade of C or higher on 18 semester hours of work in his major. Grades lower than C will not be acceptable in the major for students transferring from other colleges. For transfer students the number of hours taken here in the major must carry grade of C or better in the same ratio as the number 18 is to the total number of semester hours required in the major. The work of some departments will be found in more than one division; courses in such departments, however, cannot be counted both as allied to the major and as non-divisional. *A course that is listed in the major department and another department must count toward the major.*

It is also understood that a student shall have the right to submit to the head of a division a program of his own, which may be at variance with the regular divisional arrangement, and, if it is approved by the Advisory Board of the division and the Administrative Board of the College, he may follow it toward the appropriate degree.

Information about the divisions and their offering toward the Bachelor of Arts degree follows:

THE DIVISION OF THE HUMANITIES

WILLIAM WELLS, Ph.D., *Chairman*

ALBERT SUSKIN, Ph.D., *Secretary*

The departments of instruction included in the Division of the Humanities are as follows:

Art	History
The Classics	Journalism
Dramatic Art	Music
English	Philosophy
General and Comparative Literature	Radio
Germanic Languages	Religion
	Romance Languages

Only Journalism 53, 56, 58, 60, and 73 of the courses given in the School of Journalism may be taken for credit in this division of the College.

GENERAL STATEMENT

After a student has selected his department of major interest, that department must require of him a minimum of six whole semester courses, or the equivalent in whole and half courses, and many require a maximum of eight such courses. In the allied departments of the division the student must take at least five such semester courses and may take eight, distributed between at least two departments; not more than four of these divisional courses may be taken within one department. The student must also take from departments in the other divisions at least five and not more than seven whole semester courses, in all a sufficient number of courses to make a total of at least twenty whole semester courses over and above the full requirements of the General College.

PROGRAM FOR HONORS WORK

A student in one of the departments in the Division of the Humanities may, as the result of distinguished work, be awarded a degree with *Honors* or *Highest Honors*.

I. *Application.* At the end of the sophomore year or the beginning of the junior year the student with a good record for courses in the General College may become a candidate for honors by applying to the head of his major department, or to the chairman of the departmental committee on honors, with whom he will confer on a unified program of work. A student is required to show on his registration form the honors course the second term before he plans to be graduated. The student who fails to register with his departmental adviser for honors before the end of the final registration period which begins his senior year may be admitted to candidacy only upon application to the Advisory Board of the Division.

II. *Requirements.* The candidate for honors is expected to give evidence of ability to do work which in quality and quantity can be judged as outstanding. In addition to a good general knowledge of his major subject he must secure an intensive understanding of that special field which will form the background of his essay. To this end he should do, in term and in vacation, a large amount of reading additional to that assigned in his regular courses. (For reading courses see below, Part IV.) A grade average of B in the major subject will normally be considered as a minimum. The following are the formal requirements for a degree with honors in the division:

1. Written comprehensive examination.
2. Essay. This essay, which need not be a piece of original research, must be submitted in typed form by May 1 of the senior year.
3. Oral examination. This examination, one hour in length, will be limited to the student's special field.

All of the honors work must come up to a standard of excellence to be determined by the departmental committee, which shall have charge of the administration of the requirements, and shall have the power to demand that a student return to his regular status. The candidate showing a superlative degree of ability and industry will be awarded *Highest Honors*.

III. *Adviser.* To guide him in his reading and the preparation of his essay, a member of the staff of his major department will be assigned the candidate for honors as a special adviser.

IV. *Exemption from Classroom Courses.* The candidate for honors may receive credit for two reading courses. Such courses, with the

exemption from class attendance and the requirements of regular courses, should usually be taken during his senior year, though the departmental committee, on the recommendation of the special adviser, will have the power to modify such procedure. Only one of the reading courses may be taken during the junior year, not more than one of them may be taken during a single semester, and both of them must be counted as belonging to the major subject. The candidate who, upon his own initiative or the decision of the departmental committee, abandons working for honors, or who fails to satisfy all the formal requirements for a degree with honors, may receive, with the consent of the departmental committee, credit for the reading courses which he has completed.

PROGRAM FOR HONORS IN WRITING

A student in the Department of English, Dramatic Art, or Radio, Television, and Motion Pictures may work toward a degree with Honors in Writing. The purpose of the program is to encourage and assist able and promising students interested in writing, through stimulating association with others of like mind and through the help and guidance of several qualified advisers with varied points of view. This program is under the direction of a University committee on Honors in Writing.

Students are admitted to the program, on the basis of high academic standing and proven ability in writing, during their senior year, on application to the committee. Application should be made at the end of the junior year through the chairman of the department of the student's major.

Requirements for a degree with Honors in Writing:

1. High academic standing (at least a B average in the major), and completion of the normal program for the major in his department.
2. Successful completion of the honors course, which consists of writing a work of excellence in scope and quality under the direction of an adviser and in consultation with the committee. The committee is the final judge of the acceptability of the work for Honors in Writing.

The Honors course will run throughout the year, and carry a total credit of 3 semester hours (1½ each semester). It will be counted as an additional course in the major, but may not be substituted for any of the requirements in allied or non-divisional fields.

3. No other writing courses are specifically required, but the student will normally be expected to have taken during his junior year a course in the particular field of writing in which he specializes. During the senior year he may be advised to take a course in a field other than that of his specialty. The following are approved for this purpose: English 34, 35; Dramatic Art 155, 156; Radio, Television, and Motion Pictures 78, 79.

The student will work under the direction of the interdepartmental committee on Honors in Writing and will meet with the committee and the other honors candidates in regularly scheduled seminars. He will also have as his immediate adviser the representative of his major department on that committee.

THE DIVISION OF THE SOCIAL SCIENCES

E. WILLIAM NOLAND, Ph.D., *Chairman*
 CARL FRASER BROWN, Ph.D., *Secretary*

This division includes the following departments of instruction:

Economics	Philosophy
Education	Physical Education
Geography	Political Science
History	Psychology
Journalism	Sociology and
Library Science	Anthropology

Psychology 26 and 27 may be counted only as natural science.

Business Administration 71 (unless Economics 74 has been taken), 153, 160, and 190 may be taken for credit, but all other courses in business administration carry no credit toward a degree offered by the College of Arts and Sciences, except in programs of majors in economics, psychology, and industrial relations. Only Education 41 and 71 (except for industrial relations majors who choose education for concentration) of the courses given in the School of Education, and Library Science 122 and 123 of the courses given in the School of Library Science, and Journalism 54, 146, 161, 165, 184, and 191 of the courses given in the School of Journalism may be taken for credit in this division of the College.

GENERAL STATEMENT

This division requires the student to complete a minimum of six whole semester courses or the equivalent in whole and half courses in his chosen department of major interest. If, however, essential foundation courses in the major department have not been completed in the General College, a maximum of eight such courses may be required in that department.

In the allied departments of the division the student must take at least five such semester courses and may take eight, distributed between at least two departments; not more than four of these divisional courses may be taken within one department. The student must also take from departments in other divisions at least five and not more than seven whole semester courses, in all a sufficient number of courses to make a total of at least twenty whole semester courses over and above the full requirements of the General College.

PROGRAM FOR HONORS WORK

The program for honors work in the division of the Social Sciences is substantially the same as that in the Division of the Humanities.

THE DIVISION OF THE NATURAL SCIENCES

EVERETT D. PALMATIER, Ph.D., *Chairman*

EDWIN CARLYLE MARKHAM, Ph.D., *Secretary*

The following departments of instruction are included in the division:

Botany	Philosophy
Chemistry	Physics
Geology and	Psychology
Geography	Zoology
Mathematics	

GENERAL STATEMENT

The general requirements in this division are as follows: from six to eight courses, or the equivalent, in the department of major interest; from five to seven courses in allied departments of the division; and from five to seven courses in departments in other divisions, not to exceed a total of twenty courses. The dean is authorized to make such adjustments as are necessary in order that a student with a major in science shall not have to take more than the standard number of hours for graduation, but the total number of upper-division courses shall not be less than eighteen.

Bachelor of Science

For those students whose interest is in the applied sciences and who wish to enter seriously upon the pursuit of the specialized knowledge and techniques of the sciences, the University offers several curricula leading to the degree of Bachelor of Science. Each of these provides for specialization in a particular science, accompanied by the necessary instruction in related fields of science and a minimal requirement of work in English, foreign language, and other non-scientific fields. These curricula are:

Bachelor of Science in Bacteriology
Bachelor of Science in Chemistry
Bachelor of Science in Geology
Bachelor of Science in Mathematics
Bachelor of Science in Physics

Requirements for these degrees are given in the headnotes to the Description of Courses of the departments concerned (beginning on page 219). In designing programs of study based on these departmental statements, students should also consult the statements for the various divisions, given in the preceding section of this general statement.

PROGRAM FOR HONORS WORK

The Program for Honors work in the Division of the Natural Sciences is substantially the same as that in the Division of the Humanities.

Special Programs

PREPARATION FOR THE STUDY OF LAW

Students preparing for the study of law may do so in one of the following ways: (1) they may take the regular four-year course leading to the A.B. degree, choosing subjects proper to their purpose; (2) they may take the special courses leading to the A.B.-LL.B.; (3) they may take three years of academic work without the bachelor's degree in view, but with careful regard to meeting the exact requirements of the school they plan to enter.

Students who intend to matriculate in the School of Law of this University may plan their courses in such a way as to secure the A.B. and LL.B. degrees in six years instead of the seven years required for the two separately. For the A.B. they must complete, *before matriculation in the School of Law*, the courses outlined below in the General College and the College of Arts and Sciences, with an average of C or better, and, in addition, the first year of law to the satisfaction of the School of Law. The LL.B. degree is then secured by completing the remaining two years of law.

Students taking the academic subjects listed in the combined A.B.-LL.B. program are hereby notified that the completion of the required academic courses does not necessarily mean admission to the School of Law. If it is necessary to limit enrollment, preference will be given to applicants with superior records, considering both the quality and amount of pre-law work.

³English 1, 2, 21, 22

Social Science 1-2

Mathematics 7-8 or Latin 3-4 (or 1-2) or Greek 3-4 (or 1-2)

Hygiene 11

Physical Education 1, 2, 3, 4

Foreign language 3, 4, 21; or 1-2, 3-4 (providing the language is not the same as that presented for entrance)

One sophomore elective in the humanities

History 71 and 72 or 44 and 45

Economics 31-32

Political Science 41, and one other course in political science

Psychology 26

⁴Two courses in natural science

English 44 and one other English course, preferably 30

Eight elective courses

PREPARATION FOR THE STUDY OF MEDICINE OR OF DENTISTRY

Students preparing for the study of medicine or dentistry should spend as much time in securing a well-rounded cultural education as their age and financial resources permit. If possible, they should take the regular four-year course leading to the bachelor's degree. If this is not practicable, they may take the special course leading to the S.B. in Medicine or the S.B. in Dentistry, or they may take three years of academic work without the bachelor's degree in view, but with careful regard to meeting the specific requirements for admission to the medical or dental schools. In general it seems desirable for students who are *preparing for medicine* by taking courses leading to the bachelor's degree to select either chemistry or zoology as the major field of study, but the completion of a major in another department may still provide adequate preparation. In order to do this they should take courses in the premedical sciences in the first two years in the General College, namely Chemistry 11-12, 31 or 11-21; Physics 24-25, or Botany 41 and Zoology 41. In the College of Arts and Sciences they could then follow whatever their interests may direct and still complete adequate and necessary work in biology, chemistry, and physics prerequisite to the medical curriculum.

Because of the widening social and economic interests of the medical and dental professions, students preparing to enter either profession should take, in addition to the requirements in the sciences, as many courses as possible in history, literature, economics, philosophy, and psychology.

3. English 23 or 26, or a music or art elective or Religion 28, may be substituted for English 22.

4. At least one of these courses must be chosen from the physical sciences or mathematics.

Because there is not sufficient space in the medical and dental schools to admit all students who meet the quantitative standards, and because more than average intelligence and aptitude are required for the satisfactory completion of the medical or dental curriculum, the quality of the student's work is of the greatest importance. All students interested in the study of medicine or dentistry should attempt to stand in the highest third of their academic classes.

BACHELOR OF SCIENCE IN MEDICINE OR BACHELOR OF SCIENCE IN DENTISTRY

The University recommends that each applicant for admission to its School of Medicine or to its School of Dentistry prepare himself as fully as his age and resources permit. If possible, he should secure a bachelor's degree before beginning his professional study. If this is impracticable, he may secure excellent preparation by completing the academic curriculum outlined below leading to the degree of Bachelor of Science in Medicine and Bachelor of Science in Dentistry. Each degree is conferred upon the satisfactory completion of the first year of work offered in the School of Medicine or the School of Dentistry.

NOTE: Students pursuing the academic subjects listed below are hereby notified that the completion of these courses does not necessarily mean admission to the School of Medicine or of Dentistry. From the rather long list of applicants are chosen those who are deemed the most promising material for admission to the schools. No arrangement exists for granting the degree of S.B. in Medicine or S.B. in Dentistry for work in any schools other than these. Therefore, in order to secure the S.B. in Medicine or S.B. in Dentistry, the student must complete the first year of work offered in the School of Medicine or of Dentistry, and in no other such school. To be eligible for either degree, at least the last year of academic work, before entrance to the School of Medicine or of Dentistry, must have been done in this institution.

FIRST YEAR

Chemistry 11-21 (or Chemistry 11-12 to be followed by 31 in the second year)	Mathematics 7-8 or 15-16
English 1-2	Social Science 1-2
French, German, Spanish, Latin, or Greek 3-4	Hygiene 11
	Physical Education 1, 2

SECOND YEAR

Botany 41	French, German, Spanish, Latin, or Greek 21
Chemistry 43	French, German, Spanish, Latin, or Greek 22 or Humanities elective
English 21	Physics 24-25 (or Zoology 41-42)
English 22 or 23 or 26 (or Art or Music or Religion approved elective)	Electives, two courses
	Physical Education 3, 4

THIRD YEAR

Chemistry 61, 64, or 61, 62	Zoology 41-42 (or Physics 24-25, whichever was not taken in second year)
Psychology 26	Electives, four courses

BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

The School of Medicine of the University of North Carolina offers jointly with the College of Arts and Sciences two programs leading to the Bachelor of Science in medical technology.

The first of these programs, which has been in operation by the College of Arts and Sciences for a number of years, consists of a four-year collegiate curriculum followed by a year of practical experience and training in a hospital to qualify the student for an examination offered by the Registry of Medical Technologists of the American Society of Clinical Pathologists. Although the fourth year must be taken in the College of Arts and Sciences, the additional year of medical training does not necessarily have to be taken at the Memorial Hospital of the University of North Carolina, and the successful completion of the collegiate portion of the program does not guarantee admission to training in the hospital.

At least eighteen semester hours of grade C or higher are required from the following: chemistry courses numbered above 31, zoology courses numbered above 42, bacteriology and pathology courses.

NOTE: After the completion of this program, a year of practical experience and training in a hospital will be necessary before the student can qualify for the examinations offered by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

In the second of these programs the student takes a prescribed curriculum for two years in the General College (or its equivalent elsewhere) and one year in the College of Arts and Sciences of the University; the fourth year consists of a twelve-month course in medical technology in the School of Medicine; both the third and fourth years must be taken in the University. Women are eligible to enter this program as freshmen. Students who complete the first three years of this program are hereby notified that the completion of these courses does not necessarily mean admission to the twelve-month course in medical technology in the School of Medicine. Only the most promising applicants can be chosen to fill the limited number of vacancies in the medical technology course. The schedule of academic work for the first three years of both programs follows:

FIRST, SECOND, AND THIRD YEARS

English 1-2-21	9 hours
Mathematics 7-8	6 hours
Social Science 1-2	6 hours
⁵ French, German, Spanish, Latin or Greek 3-4-21	9 hours
One Social Science elective	3 hours
Two Humanities electives	6 hours
Hygiene 11	2 hours
Physical Education 1-2-3-4	4 hours

5. Or language 1-2, 3-4 providing the language is not the same as that presented for entrance.

Chemistry 11 (5), 21 (5) (or Chemistry 11-12 to be followed by 31 in 2nd year), 43 (5), 61 (6), 64 (2)	23 hours
Zoology 41-42	8 hours
Bacteriology 51 (4) or 55 (4) or 132 (7) or 101ab (8 2/3)	4-8 2/3 hours
Two Science electives: Bacteriology 104 (4) ⁶ , 106 (4), 112 (4), 120 (4), Zoology 103 (4), 104 (4), 105 (4), 110 (4), 111 (4), Biochemistry 101 ab (6), Chemistry 44 (5), Public Health 135 (2 1/2), Botany 41 (4) 6 1/2-10 hours	
Three non-science electives	9 hours
Free elective	3 hours
Total:	98 1/2-110 2/3 semester hours

In addition to these courses, the student in the four-year academic program must also take Physics 24 and 25, six more hours of non-science electives, and fifteen more hours of free electives.

BACHELOR OF SCIENCE IN INDUSTRIAL RELATIONS

After two years in the General College, the student electing the curriculum in industrial relations in the College of Arts and Sciences takes a "core" of eight courses in business administration, economics, psychology, history, and sociology, a major of five courses in education, history, political science, psychology, or sociology, and seven elective courses in the humanities and natural sciences.

FIRST AND SECOND YEARS

English 1, 2, 21
 Mathematics 7-8 or 7-10
 Psychology 26, one other biological science, and one physical science
 Modern foreign language 3, 4, 21; or 1-2, 3-4 (provided the language is not the same as that presented for entrance)
 Social science: Social Science 1-2; Economics 31-32 (with grade of C); Political Science 41; Sociology 51
 Three sophomore electives
 Hygiene 11
 Physical Education 1, 2, 3, 4

THIRD AND FOURTH YEARS

Business Administration 71 (or Econ. 74), 150, and one elective in economics or business administration
 Economics 191, and 192 or 193
 Psychology 133
 History 168 or Economics 136
 One course in statistics (economics, psychology, or sociology)
 Five courses in one of the following: education, history, political science, psychology, sociology (courses to be selected with advice and approval of the college adviser)
 Seven courses of electives in natural science or the humanities (history is to be counted among the humanities, unless the five courses are taken in history).

6. For students majoring in medical technology, Bacteriology 51 or 55 is acceptable as the prerequisite for Bacteriology 104, 106, 112, and 120.

BACHELOR OF ARTS IN INTERNATIONAL STUDIES

After two years in the General College, in which such courses as Economics 31-32, Geography 38, History 21-22, or 44-45, or 48-49, and Political Science 41 are recommended, the student electing the curriculum in international studies in the College of Arts and Sciences takes a "core" of six courses in anthropology, economics, geography, history, journalism, and political science, plus *one* language course in addition to those required by the General College. The student then must concentrate in a particular geographic area (Asia, Latin-America, Europe) *or* concentrate in a particular field (anthropology, economics, geography, history, political science), and in addition take seven or eight electives.

I. THE "CORE" REQUIREMENT

Six of the following courses in at least five different fields, *plus* one language course in addition to those required by the General College.⁷

Anthropology 122	History 143
Economics 111, 161	Journalism 146
Geography 152	Political Science 86, 145

II. THE "CONCENTRATION" REQUIREMENT

A. Geographic Concentration. A minimum of six courses in at least three fields from *one* of the three area groups listed below.

Asia: Anthropology 129, 131, 137
 Economics 137
 Geography 181, 182
 History 83, 84, 85, 87, 159
 Political Science 89, 142, 148

Latin-America: Anthropology 127, 132
 Geography 159, 160
 History 171, 172, 173, 174
 Political Science 87, 127, 142, 167

Europe: Economics 135
 Geography 158
 History 91, 135, 136, 140, 142
 Political Science 52, 55, 121, 123, 142

B. Field Concentration. A minimum of five of the cited courses from *one* of five fields listed below, in addition to those courses in the student's field that are in the basic "core."

Anthropology 126, 127, 128, 129, 131, 132, 137

7. In case of scheduling difficulties, certain approved alternate courses may be substituted.

Economics 70, 81 or 131 or 185, and three from 91, 135, 137, 162, 195

Geography 153, 157, 158, 159 or 160

History 84, 85, 87, 91, 114, 135, 136, 140, 142, 143, 159, 171, 172, 173, 174

Political Science 55, 87, 89, 123, 127, 141, 142, 144, 145, 146, 147, 148

III. ELECTIVES

Seven or eight electives, distributed in such a way that the student will take at least five non-divisional courses at the upper college level.

THE SCHOOL OF EDUCATION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

ARNOLD PERRY, Ed.D., *Dean*

The Administrative Board^{1, 2}

WILLIAM HENRY PEACOCK, Ph.D., *Professor of Physical Education* (1959)

RICHARD PERCIVAL CALHOON, M.A., *Professor of Personnel-Management* (1959)

SAMUEL M. HOLTON, Ph.D., *Associate Professor of Education* (1960)

DAVID G. MONROE, Ph.D., *Professor of Political Science* (1960)

C. HUGH HOLMAN, Ph.D., *Professor of English* (1961)

WILLIAM ALBERT MCKNIGHT, Ph.D., *Associate Professor of Spanish* (1961)

ARNOLD KIMSEY KING, Ph.D., *Professor of Education and Director of the Summer Session* (1961)

JOHN BRYANT CHASE, Ed.D., *Associate Professor of Education* (1961)

FLOYD BURTON JONES, Ph.D., *Professor of Mathematics* (1962)

CARL F. BROWN, Ph.D., *Professor of Education* (1962)

General Statement

The following outline will serve as a guide for students enrolled in the School of Education.

Undergraduate students who wish to prepare for teaching in the elementary school or in the secondary school will be admitted to the School of Education in accordance with the admission procedure outlined in the bulletin of the School of Education.

Each student will follow the program of courses in education outlined for the elementary certificate or the secondary certificate. In addition he will select courses in his major field of concentration to meet the requirements for graduation from the University and general certification requirements.

Curricula which meet the requirements of the State Board of Education for certificates to teach in the public schools of the various states are administered by the School of Education in cooperation with the academic departments of the University. Majors are offered and certificate requirements are met in art, elementary education, English, foreign language (French, German, Latin, Spanish), health education and physical education, science (general science, biology, chemistry, physics), and social studies (economics, history, political science, geography, and sociology). Students in the

1. The Chancellor, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

2. Dates indicate expiration of terms.

School of Education are encouraged to prepare for a second teaching field or to take courses which will enable them to direct extra-curricular activities.

Graduation Requirements

To secure a degree from the School of Education, a student must meet each of the following requirements.

- (a) A minimum of 126 semester hours credit, including hygiene and physical education.
- (b) A minimum of forty courses, twenty of which should be of junior and senior standing.
- (c) An over-all average grade of at least C. (For the method of computing the C average, see page 128, section on Eligibility for Graduation.)
- (d) A distribution of courses during the first two years that corresponds to that of the General College of the University, and a distribution of courses in the junior and senior years that meets the student's particular major pattern as described below.
- (e) A satisfactory teaching major in elementary education, in junior high school education, or in the teaching of one of the subject areas at the secondary school level. The student must secure a grade of C or better for the final eighteen hours of professional course work in the School of Education and on at least eighteen semester hours of work in his major teaching field. Grades lower than C will not be acceptable in the major teaching field for students transferring from other colleges.

Bachelor of Arts in Education (Secondary)

FRESHMAN YEAR

Required:	English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one sequence:	Mathematics 7-8 or 7-10 or 11-12 or 15-16 3Greek 3-4 (or 1-2) 3Latin 3-4 (or 1-2)
Choose one sequence:	Chemistry 11-12 or 11-21 Physics 24-25	Choose one sequence:	4French 3-4 4German 3-4 4Greek 3-4 4Latin 3-4 4Spanish 3-4 4Russian 1-2
OR			

3. Students who choose Greek or Latin in this group must choose a modern foreign language to meet the requirement in foreign language. Courses 1-2 may be taken by students who did not take one of these languages in high school.

4. Students who present credit for two units of high school work in foreign language but who are placed in course number 1 of that foreign language may meet the requirement with courses 1-2, 3-4. A student who has an entrance deficiency in foreign language should not take Russian.

- Any two courses of these: {
 Astronomy 31
⁵Botany 1 or Zoology 1
 Botany 41, 42
 Geography 38
 Geology 1 or 41, 42
 Mathematics 31 or 34
 Physics 20
 Zoology 41, 42

SOPHOMORE YEAR

- Required: {
 English 21
 Foreign language 21 (or 3-4 of language begun in freshman year)
 Physical Education 3, 4
 One course in natural science which with the freshman courses in science must include one course in physical science and one in biological science

- Choose one course: {
⁶Economics 30
 Anthropology 41
⁶History 11, 21, 22, 41, 42, 44, 45, 46, 47, 48, 49
 Philosophy 21, 22, 41, 42
 Sociology 51, 52, Rural Sociology 53
 Political Science 41, 42, 51, 52
- Electives: Six courses from the list of sophomore electives on page 148.

Bachelor of Science in Science Teaching (Secondary)

FRESHMAN YEAR

(Same as for Bachelor of Arts in Education, Secondary)

SOPHOMORE YEAR

- Required: {
 English 21
 Foreign language 21 (or 3-4 of foreign language begun in freshman year)
 Physical Education 3, 4
- Choose one course: {
⁶Economics 31-32
 Anthropology 41
 History 11, 21, 22, 41, 42, 44, 45, 46, 47, 48, 49
 Political Science 41, 42, 51, 52
 Philosophy 21, 22, 41, 42
 Sociology 51, 52
 Rural Sociology 53
- Choose one sequence: {
 Astronomy 31, 32
 Botany 41 and Zoology 41
 Botany 41, 42
 Zoology 41, 42
 Chemistry 11-21
 Geology 41 and
 Geography 38
 Geology 41, 42
 Physics 24, 25 or 34, 35
 Electives: Five courses from the list of sophomore electives on page 148.

5. Students who wish to take further work in botany and zoology should choose as their first course in these areas Botany 41 or Zoology 41 instead of Botany 1 or Zoology 1.

6. Students who desire to teach in the field of social studies in high school should include History 21-22 or History 71-72 and Economics 30.

Bachelor of Science in Health Education

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one sequence:	{ Mathematics 7-8 or 7-10 or 11-12 or 15-16
Choose one:	{ Botany 41 Physics 20	Choose one sequence:	{ ⁷ French 3-4 ⁷ German 3-4 ⁷ Spanish 3-4 ⁷ Russian 1-2
Choose one:	{ Elective from page 148		

SOPHOMORE YEAR

Required:	{ English 21 Humanities Elective from page 148 Foreign Language 21 (or 3-4 of foreign language begun in freshman year) Chemistry 11-21 Political Science 41 Physical Education 3, 4	Choose one:	{ Anthropology 41 or Education 41 Psychology 25 or Sociology 52 or 62
		Choose one:	{ Elective from page 148

Bachelor of Arts in Education (Elementary)

FRESHMAN YEAR

Required:	{ English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2	Choose one sequence:	{ Mathematics 7-8 or 7-10 or 11-12 or 15-16 ⁸ Greek 3-4 (or 1-2) ⁸ Latin 3-4 (or 1-2)
Choose one course:	{ Chemistry 11-12 or 11-21 Astronomy 31 Botany 1 or Zoology 1 Geology 1 or 41, 42 Physics	Choose one sequence:	{ ⁹ French 3-4 ⁹ German 3-4 ⁹ Greek 3-4 ⁹ Latin 3-4 ⁹ Spanish 3-4 ⁹ Russian 1-2

One course from the list of electives on page 148.

7. Foreign language 1-2, 3, 4, will satisfy the requirement providing the language is not the same as that presented for entrance. A student who has an entrance deficiency in foreign language should not take Russian.

8. Students who choose Greek or Latin in this group must choose a modern foreign language to meet the requirement in foreign language. Courses 1-2 may be taken by students who did not take one of these languages in high school.

9. Students who present credit for two units of high school work in foreign language but who are placed in course number 1 of that foreign language may meet the requirement with courses 1-2, 3-4. A student who has an entrance deficiency in foreign language should not take Russian.

SOPHOMORE YEAR

Required:	}	English 21	Electives: Three courses from the list of sophomore electives on page 148.
		Foreign language 21 (or 3-4 of language begun in freshman year)	
		Geography 38	
		History 21-22	
		Music 41 or 55 or 56	
		Physical Education 3, 4	
		One course in natural science which with the freshman courses in science must include one course in physical science and one in biological science	

Professional Program

The professional program designed to meet the certification requirements has been organized around three areas of study—*The School, The Pupil, and Teaching (The Practicum)*. The content of the courses, which of necessity cuts across these areas, has been organized to eliminate unnecessary duplication. The materials used and the activities engaged in through these courses offer a variety of individual and collective experiences. Schools are visited, classrooms are used for observation of student growth, teachers are interviewed for professional development, and community activities are observed.

The following professional courses are listed in the catalogue for credit toward graduation:

Elementary Students:

Ed. 41. INTRODUCTION TO THE STUDY OF EDUCATION (3). (*The School, The Pupil, and Teaching*).

Ed. 71. EDUCATIONAL PSYCHOLOGY (3). (*The Pupil*).

Ed. 72a. CHILD GROWTH AND DEVELOPMENT (3). (*The Pupil*).

Ed. 74. THE ELEMENTARY SCHOOL (3). (*The School*).

Ed. 61. MATERIALS AND METHODS IN TEACHING IN ELEMENTARY GRADES (3). (*Teaching*).

Ed. 62. STUDENT TEACHING IN ELEMENTARY GRADES (9). (*The Pupil, Teaching, and The School*).

Secondary Students:

Ed. 41. INTRODUCTION TO THE STUDY OF EDUCATION (3). (*The School, The Pupil, and Teaching*).

Ed. 71. EDUCATIONAL PSYCHOLOGY (3). (*The Pupil*).

Ed. 72b. ADOLESCENT GROWTH AND DEVELOPMENT (3). (*The Pupil*).

Ed. 99. THE SECONDARY SCHOOL (3). (*The School*).

One course from METHODS AND MATERIALS OF TEACHING IN: Ed. 63, Health and Physical Education; Ed. 75, Instrumental Music; Ed. 76, Choral Music; Ed. 77, Art; Ed. 81, English; Ed. 83F, French; Ed. 83S, Spanish; Ed. 85, Social Studies; Ed. 87, Latin; Ed. 89, Mathematics; Ed. 91, Science; Ed. 93, Public Health Education (3). (*Teaching*).

One course from STUDENT TEACHING: Ed. 64, Health and Physical Education; Ed. 78, Instrumental Music; Ed. 79, Choral Music; Ed. 80, Art; Ed. 82, English; Ed. 84F, French; Ed. 84S, Spanish; Ed. 86, Social Studies; Ed. 88, Latin; Ed. 90, Mathematics; Ed. 92, Science; Ed. 94, Public Health Education (9). (*The School, The Pupil, Teaching*).

Program in Secondary Education

In addition to the professional courses from the field of education outlined above, all students in the program of secondary education will meet the requirements in the fields of their specialization by following the programs outlined below. Some students will find it possible by careful planning to qualify for certification to teach in more than one field. The requirements for each of the certificate areas recognized by the North Carolina State Department of Public Instruction are included below. Similar certification requirements exist in other states, but students planning to teach outside of North Carolina should consult with their advisers in the School of Education with regard to specific requirements.

ART

Students who choose art as their major teaching field should take:

Art 41 or 42 or 43; 170 or 175; 44, 46, 55, 81, 84; 48 or 50; 82 or 110; and one studio elective.

Some of the above courses may be taken as sophomore electives.

Additional art courses may be taken through use of electives in the upper college.

Students who choose art as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours work including: Design (industrial, interior, costume); Drawing and Painting; Ceramics and/or Sculpture; Art History. Appropriate courses taken in any accredited college will count toward this certificate.

ENGLISH

Note: The English Department has renumbered its course offerings. In the current listings, the old number for the course is included in parentheses after the new number.

Students who choose English as their major teaching field will take:

- (a) English 58 (50) or [158S (115ab)]
- (b) English 36 (96) or [136 (170)]
- (c) English 81 (81) or 82 (82)
- (d) Two of the following: English 41 (94) or [140S (104ab)], 43 (91), 45 (93), 52 (70) or [152S (103ab)], 54 (74), 64 (75), 72 (84), 73 (88), 74 (89), 92 (98), 93 (97)

- (e) One elective in English
- (f) Speech 40 (English 40) or 41 (English 41) or 44 (English 44)

Students who choose English as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours. Required courses include work in Shakespeare, American Literature, and Advanced Grammar and Composition. Specifically recommended in addition is work in Speech, English or American Literature, Teaching Reading, and Young People's Literature. Appropriate courses taken at the collegiate level in any accredited institution will count toward the certificate.

BIBLE AND RELIGION

Students who choose Bible and religion as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-one semester hours of course work including: Old Testament and New Testament and choices from

Religion 28, 30, 31, 80, 81, 92, 103, 45 or 195.

Appropriate courses taken at the collegiate level in any accredited institution will count toward this certificate.

FRENCH

Students who choose French as their major teaching field should take in addition to French 3-4 and 21 the following:

French 50, 51, 52, 71, 72, 126, 145

Students who choose French as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of course work if they present two high school units of French. Six semester hours of spoken language must be included.

HEALTH AND PHYSICAL EDUCATION

All students who choose health and physical education as a major teaching field are required to have at least six semester hours of biological science and the following physical education courses: 75, 76, 77, 78, 79, 86, 87, 88

In addition; men will take Physical Education 65, 66, and 67; women will take Physical Education 55, 56, and 57

Students who wish to qualify as part-time teachers of health and physical education and coaches of athletic teams will qualify for a North Carolina teaching certificate by taking fifteen semester hours of work in physical education, including: Principles, Administration and Supervision of Physical Education and Health, Physical Education skills and applied techniques, and Health Education, including the teaching of Health and School Health Problems.

HEALTH EDUCATION

Students who choose health education as a major teaching field should take: ,

Bacteriology 51 or 151

Education 176

Physical Education 75 or 76; or

Zoology 103 and Physical Education 76 or

Zoology 103 and Physical Education 123

Public Health 110ab

Public Health 18

Public Health 19

Public Health 90 (recommended elective)

General college electives should be chosen in consultation with an adviser in the Department of Health Education, School of Public Health.

Students working toward the B.S. in Health Education are encouraged to complete requirements for certification to teach biology. One extra course—botany, preferably Botany 41—would be needed. However, additional advanced courses in biology (Zoology 103 and 110) are suggested, and students who plan to take one of these in the senior year should clear their schedules for it by taking Public Health 18 the spring semester of the junior year.

Students who choose health education as a second teaching field (especially recommended for science teachers) may qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours covering (1) The Individual (a. Personal Health, b. Mental Health, c. First Aid and Safety); (2) Community and School (a. Principles of Public Health, b. Environmental Health, c. Healthful Family Living); (3) Organization and Administration of School Community Health. These subject area requirements may be met by taking the following courses: Sociology 62, Education 176 or the equivalent, Public Health 18, 19, 90, 110a, 110b.

LATIN

Students who choose Latin as their major teaching field should take Latin 21 plus a minimum of six other courses of higher level.

Students who choose Latin as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-four semester hours of work in Latin (based on two units of high school Latin to be reduced six semester hours for each additional high school unit of entrance credit).

LIBRARY SCIENCE

Students who choose library science as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of eighteen semester hours of work, including: Administration and Organization of the School Library, Reference Books and Their Use, Book Selection for Children, Book Selection for Young People, Simplified Classification and Cataloguing. These requirements may be met by taking:

Library Science 94 or 133, 95, 101, 122, 123, 143.

MATHEMATICS

Students who choose mathematics as their major teaching field should take the following courses or their equivalent:

Mathematics 31, 32, 33, 102 or 116, 103 or 119.

Two additional courses in mathematics to make a total of twenty-one semester hours.

Students who choose mathematics as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-one semester hours of work, including: College Algebra, Trigonometry, Analytic Geometry. Other courses recommended in this total include: Differential and Integral Calculus; History of Mathematics; Mechanical Drawing; Surveying; Application of Mathematics to Science, Engineering, Commerce, and Industry; Statistics; College Physics; Navigation; and Astronomy. Appropriate courses taken at the collegiate level in any accredited institution will count toward this certificate.

MUSIC

Students who choose music as their major teaching field will take the following courses or their equivalents:

Music 11, 12, 14, 15, 31, 32, 44, 45, 47, 48, 61, 64, 71, 74, 101, and appropriate courses each year in applied and ensemble music.

Courses 11 through 48, or their equivalents, should be completed during the freshman and sophomore years; the remaining courses during the junior and senior years.

Students who choose music as a second teaching field may be certified in North Carolina by following the appropriate program below.

For the Certificate in General Music Education:

1. Applied Music

- a. piano, at least 3 semester hours

- b. voice, at least 3 semester hours (one-half or more in voice training)

2. Theory of Music (harmony, form, ear training), at least 6 semester hours
3. History and Appreciation of Music, at least 5 semester hours
4. Music electives, 6 semester hours

For the Certificate of Instrumental Music Education:

1. Applied Music
 - a. major instrument, 4 semester hours
 - b. at least 2 minor instruments
2. Theory of Music (harmony, form, ear training), at least 6 semester hours
3. History and Appreciation of Music, at least 6 semester hours
4. Music electives, 7 semester hours

NATURAL SCIENCE

Students who choose science as their major teaching field will complete a minimum of ten courses in science including three of the following sequences:

Botany 41 and 42 or 43

Chemistry 11-21

Geology 41 and Geography 38 or Geology 41, 42

Physics 24-25

Zoology 41, 42

Any of the above courses taken while the student is in the General College may count toward satisfying this requirement, but at least six of the ten courses must be passed with a grade of C or better.

Those who wish to complete a major in one science may do so by selecting four to six additional courses in one department.

Students planning to teach in North Carolina must take at least two courses each in biology, chemistry, and physics, and one in geography or geology in order to meet the North Carolina requirements for a Class A Certificate.

Students who choose science as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours of work including at least six semester hours each in biology, chemistry, and physics and three semester hours in geography or geology.

Individual certificates will be granted in biology, chemistry, or physics on the basis of twelve semester hours of credit and in the area of general science on the basis of eighteen semester hours of credit in three of the following areas: biology, chemistry, physics, and geography or geology. Appropriate courses taken at the collegiate level in any accredited institution will count toward these certificates.

SOCIAL STUDIES

Students who choose social studies as their major teaching field must have the following courses or their equivalent: Social Science 1-2, and History 21-22 or 71-72. In addition to these prerequisite courses, students must pursue one of the following plans.

- (1) Take the following courses or their equivalents:
 - (a) Political Science 41, Sociology 51 or 52, Economics 30 or 61
 - (b) One course from the following: Geography 153, 154, 157, 158, 159 or 160
 - (c) Two three-hour courses in history of junior-senior rank
 - (d) Two three-hour elective courses from the Division of the Social Sciences or Geography; or

- (2) Complete at least six courses in one of the following departments as prescribed by that department: Economics, History, Political Science, Sociology and Anthropology, or Geography, and complete two additional courses not in the field selected from the following: Political Science 41, Sociology 51, Economics 61, and Geography 153 (or equivalents of these courses).¹⁰

Students who choose social studies as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of thirty semester hours of course work divided among the following areas: at least six semester hours in European or World History; at least six semester hours in American History; at least twelve semester hours from Political Science, Geography, Economics and Sociology; electives from these areas. Appropriate courses taken at the college level in an accredited institution may be counted toward this teaching field.

Students who meet certification requirements to teach in other fields may secure individual certification in any of the specific areas: History, Political Science, Geography, and Economics and Sociology, in which twelve semester hours of credit is presented. Certification for Citizenship or Problems in American Democracy requires credit for at least eighteen semester hours from Political Science, Economics, and Sociology.

SPANISH

Students who choose Spanish as their major teaching field should take in addition to Spanish 3-4 and 21 the following:

Spanish 50, 51, 52, 71, 72, 113, 145.

Students who choose Spanish as a second teaching field will qualify for a North Carolina teaching certificate by taking a total of twenty-

10. Students who choose a program in history will find it necessary to complete this plan and two additional three-hour courses from Political Science, Geography, Economics, and Sociology in order to qualify for the North Carolina social studies certificate.

four semester hours of course work if they present two high school units of Spanish. Six semester hours of spoken language must be included.

Distributive Education

For holders of the bachelor's degree the School of Education provides a program of courses to equip a person to serve as a teacher-coordinator of distributive education in secondary schools. At the present time courses in distributive education are offered in the summer only.

Graduate students desiring to work toward the degree of Master of Education with a major in distributive education should confer with their advisers. The State Department of Public Instruction requires certain work experience in a distributive occupation prior to certification and employment in North Carolina.

Students interested in teaching positions in this field should consult the Dean of the School of Education or the Teacher Trainer of Distributive Education in Peabody Hall.

Program in Elementary Education

The program of study leading to a major in elementary education and to certification as an elementary school teacher in North Carolina and other states may be arranged by the student in consultation with his adviser. Completion of General College requirements (freshman and sophomore years) is a prerequisite to enrollment in the School of Education and to admission to courses in education designed to develop in the student the competencies needed for effective guidance and teaching of young children.

Men students may enter the University as freshmen. Their General College program should include, where possible, two courses in American history, two courses in geography (principles and regional), an introductory course in political science, and a course in music appreciation or a course in art appreciation. These courses are usually worked into the program of the student in meeting General College requirements.

Women students may enter the University as juniors and go directly into the School of Education provided General College requirements have been met. Women who are planning to transfer to the University after two years at some other institution should plan their freshman and sophomore programs to meet General College requirements and to include the courses in history, geography, political science, art, and music mentioned above. Women admitted to the University with marked deficiencies in these courses and in General College requirements will find it necessary to take an extra term to

meet graduation requirements and to complete courses needed for teacher certification in a particular state. The summer session before the junior and senior years as well as the summer following the senior year may be used for this purpose. Students who plan their program properly may transfer to the University after two years in some other recognized institution and complete the work in the regular four semesters of two academic years.

Specific courses for the junior and senior years are selected in consultation with an adviser in elementary education. Not all students will have the same courses during the same semester. Variations will occur because of differences in freshman and sophomore programs and because of individual needs of students. All students, however, must meet graduation requirements of the University and must include all courses required by the state of North Carolina for certification as a Class A teacher in the primary or grammar grades.

Elementary certification requires the professional courses listed on page 169, in addition to the following subject-matter credits. Many of these should be completed during the first and second years of the college program.

SUBJECT	SEMESTER HOURS
1. ENGLISH	
Courses required for degree plus Children's Literature.	
Electives recommended are Advanced Grammar and Speech.	
2. AMERICAN HISTORY AND GOVERNMENT	9
<i>Required:</i>	
a. American History	6 s.h.
b. Government	3 s.h.
3. GEOGRAPHY	6
Principles and Regional recommended	
4. FINE AND INDUSTRIAL ARTS	12
<i>Required:</i>	
a. Art (including laboratory course)	6 s.h.
b. Music (including fundamentals for teachers)	6 s.h.
5. HEALTH AND PHYSICAL EDUCATION	6
<i>Required:</i>	
a. Principles, Practices, and Procedures in Physical Education for Elementary Schools	3 s.h.
b. Principles, Practices and Procedures in Health for Elementary Schools	3 s.h.

THE SCHOOL OF JOURNALISM

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

NORVAL NEIL LUXON, Ph.D., *Dean*

The Administrative Board ¹

JOHN BERRY ADAMS, Ph.D., *Associate Professor of Journalism and Research Associate in the Institute for Research in Social Science*

JOHN VOLNEY ALLCOTT, M.A., *Professor of Art*

SAMUEL SHEPARD JONES, Ph.D., *Burton Craige Professor of Political Science*

ROBERT MOATS MILLER, Ph.D., *Assistant Professor of History*

JOSEPH L. MORRISON, A.M., *Associate Professor of Journalism*

EDWARD WILLIAM NOLAND, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*

WILLIAM SMITH WELLS, Ph.D., *Kenan Professor of English*

WESLEY H. WALLACE, M.A., *Associate Professor of Radio, Television, and Motion Pictures*

ARTHUR MURRAY WHITEHILL, Jr., Ph.D., *Reynolds Professor of Human Relations in Industry*

General Statement

The School of Journalism, founded as a department in 1924 and changed to School status in 1950, offers a two-year course leading to the A.B. in Journalism.

Students who have completed two years of liberal arts courses are admitted provided they have met the requirements of the General College and have a C average. Because of the nature of class and laboratory assignments, students should be able to type with reasonable skill, accuracy, and speed.

The School also offers a major in journalism, leading to the A.M. degree, in the Graduate School and a graduate minor for candidates for the A.M. and Ph.D. degrees in English, history, political science, psychology, and sociology. Graduate minors for students in other departments may be arranged after consultation with the department chairman and the Dean of the School of Journalism.

The academic program of the School of Journalism, including the two years of liberal arts required for admission, is designed to provide students with (1) a basic liberal education, (2) an understanding of the responsibilities of a free press in a democratic society, and (3) a fundamental knowledge of journalistic techniques.

1. The Chancellor, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

Students are encouraged to acquire a background in the humanities, the social sciences, literature, and the natural sciences while preparing for journalism careers. The program of the School prepares students for editorial and advertising positions on newspapers and magazines, for radio and television news writing posts, and for a variety of positions in the broad field of mass communications.

Candidates for the A.B. in Journalism are required to take eight courses in Journalism, two in American or North Carolina history, Political Science 41, and additional social science courses as follows:

Two advanced courses in any one of four social science departments: economics, political science, psychology, or sociology. Prerequisites for these advanced courses are respectively: Economics 31-32 or 61, Political Science 41, Psychology 26, or Sociology 51. The prerequisite course or courses preferably should be taken in the General College but may be taken in the junior year.

Students planning to enter the School of Journalism are advised to meet the General College social science requirement by taking Social Science 1 and 2, and Political Science 41. Journalism staff members are available to advise pre-journalism students concerning elective courses in the General College. Students planning to transfer from other institutions are urged to note General College requirements and meet them in their institutions.

The School of Journalism Foundation of North Carolina, Inc., was established in 1949 to promote the advancement of professional education for journalism at the School of Journalism. Income from the Journalism Foundation endowment is expended for that purpose at the discretion of the Dean.

Journalism and pre-journalism students interested in extra-curricular activities in line with their academic program are encouraged by the School of Journalism to work on *The Daily Tar Heel*, student newspaper.

For further information see course listings on pp. 321-325 and write to the Dean of the School of Journalism for the separate journalism bulletin.

THE SCHOOL OF BUSINESS ADMINISTRATION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

MAURICE WENTWORTH LEE, Ph.D., *Dean and Professor, School of Business Administration*

CLAUDE SWANSON GEORGE, JR., Ph.D., *Assistant Dean; Associate Professor of Industrial Management*

PAUL NEWMAN GUTHRIE, Ph.D., *Chairman of the Department of Economics; Professor of Economics*

RALPH WILLIAM PFOUTS, Ph.D., *Chairman of Graduate Studies in the School of Business Administration and the Department of Economics; Professor of Economics*

GERALD ALAN BARRETT, A.B., LL.B., *Director of the M.B.A. Program; Professor of Business Administration*

REX SHELTON WINSLOW, Ph.D., *Director of the Bureau of Business Services and Research; Professor of Economics*

WILLARD J. GRAHAM, Ph.D., C.P.A., LL.D., *Director of the Executive Program; Professor of Accounting*

GUSTAV THEODOR SCHWENNING, Ph.D., *Editor of the Southern Economic Journal; Professor of Business Administration*

The Administrative Board¹

GERALD ALAN BARRETT, LL.B., *Professor of Business Administration*

WILLARD J. GRAHAM, Ph.D., C.P.A., LL.D., *Professor of Accounting*

MILTON SYDNEY HEATH, Ph.D., *Professor of Economics*

CHARLES ATKINSON KIRKPATRICK, D.C.S., *Professor of Marketing*

NORVAL NEIL LUXON, Ph.D., *Professor of Journalism and Dean of the School of Journalism*

EDWARD WILLIAM NOLAND, Ph.D., *Professor of Sociology*

EVERETT D. PALMATIER, Ph.D., *Professor of Physics*

RALPH WILLIAM PFOUTS, Ph.D., *Professor of Economics*

JOSEPH CARLYLE SITTERSON, Ph.D., *Professor of History and Dean of the College of Arts and Sciences*

ARTHUR MURRAY WHITEHILL, JR., Ph.D., *Reynolds Professor of Human Relations in Industry*

General Statement

Although courses of instruction in economics and in certain business subjects had been offered for many years in the University of North Carolina, not until 1919 was there established a comprehensive, well-organized business curriculum. In that year the General Assembly, in conformity with the recommendations of the President and the Board of Trustees, enacted the legislation which resulted in the organization of the School of Commerce. The name of the School

1. The Chancellor is an ex officio member of the Board. The Assistant Dean of the School serves as Secretary of the Board.

was changed in 1950 to the School of Business Administration. The School occupies a place in the University organization coordinate with other professional schools and the College of Arts and Sciences.

The School was admitted to membership in the American Association of Collegiate Schools of Business in 1923. This is an organization dedicated to the promotion of high standards in professional education for business. Membership is based on the number and caliber of the faculty; the thoroughness of the academic program offered; the content and breadth of the curriculum, both in general education and in business; the financial support of the school; and the physical facilities provided for carrying on the work. The undergraduate course of study, leading to the degree of Bachelor of Science in Business Administration, covers a period of four years and is designed to give a foundation of general education in the natural sciences, the humanities, and the social sciences, as well as to supply a professional background to those who intend to engage in business administration.

For those desiring work at a more advanced level in business administration, the degrees of Master of Business Administration, Master of Science, and Doctor of Philosophy are offered through the Graduate School.

Purpose and Policy

The phenomenal industrial development of the South in recent years has produced an imperative need for trained businessmen. The School of Business Administration, in a large sense, is the expression of the University's desire to serve this need. Substantial support has been accorded the School by both the University and the state as a whole. The School has been provided with a well-qualified instructional staff. New quarters, consisting of a quadrangle of three buildings offering outstanding classroom and laboratory facilities, were occupied early in 1953.

The teaching policy of the School assumes that effective education for business responsibility should consist not only of development of understanding of the principles and methodology which govern the organization and administration of individual business enterprises, but also of an understanding of the problems and the larger relationships of the economy as a whole. In his attempt to master the more specialized aspects of business, the student is not permitted to lose sight of social and other cultural values. Instead, the curriculum in business administration is founded upon the realization that an effective career of business leadership must be based upon a broad cultural foundation. The exacting demands which face the modern business executive require that he possess more than a high degree

of professional competence in technical and specialized aspects of business administration. He must also have a broad grasp of general business fundamentals and must have a full awareness of the economic, social and human forces which form the background against which his business career will be pursued. In short, the effective business executive must, first of all, be a responsible, informed, and perceptive citizen.

For these reasons, the various programs in business administration have been carefully formulated to maintain a balance between the equally important needs of general education and of professional education for business responsibility. Whenever possible, therefore, the plan is followed of presenting the subject matter of the various courses from the point of view of the administrator, always bearing in mind that his field of interest includes the broad external relationships as well as the internal administration of his business. Adherence to this point of view enables the student to consider the problems and practices of business in a broad perspective.

Programs leading to the degree of Bachelor of Science in Business Administration are carefully coordinated with the required two-year program of the General College, described on page 143. The undergraduate programs in business administration place further emphasis upon intellectual breadth by requiring that each student take a core of seven courses in fundamental business subjects, supplemented by appropriate elective courses in areas other than business administration and economics.

The "core" courses which are required of all candidates for the Bachelor of Science degree in Business Administration are:

Economics 70	Elementary Statistics
Economics 81	Money and Banking
Business Administration 91	Business Law
Business Administration 130	Principles of Industrial Management
Business Administration 150	Personnel Relations
Business Administration 160	Principles of Marketing
Business Administration 180	Business Finance

These core courses, plus the required program in the General College during the freshman and sophomore years, described on page 143, form the background for more intensive concentration in one of the majors in business administration. These majors include Accounting, Banking and Finance, Business Economics, Industrial Management, Insurance, Marketing, Personnel, Statistics, and Transportation and Traffic. Combined majors in Business Administration-Radio, Television, and Motion Pictures and Business Administration-Law are also offered. Specific details of requirements for each of

these majors are presented in the catalogue of the School of Business Administration. In every case, in addition to advanced courses in his major and electives in business administration or economics, a student will be required to select certain free elective courses chosen from areas outside the School and designed to give educational breadth.

Department of Economics

The Department of Economics is administratively and educationally a part of the School of Business Administration and provides instruction as an integral part of the program of the School.

In addition, the Department offers undergraduate and graduate programs in economics in the College of Arts and Sciences and in the Graduate School, leading to the degree of Bachelor of Arts, Master of Arts, and Doctor of Philosophy, for those students desiring to specialize in economics.

Reserve Officers Training Corps Program

Regularly organized units of the Air Force R.O.T.C. and Naval R.O.T.C. are maintained at the University. With careful planning, it is possible for a student to complete successfully the requirements of either of these programs coincident with an undergraduate curriculum in business administration in four academic years. More complete information is available in the catalogue of the School of Business Administration.

Special Students

Not infrequently persons already engaged in business careers feel the need of additional special training but are unable to spend a relatively long period at the University or cannot provide proper credits for admission as regular students. The School of Business Administration will admit as special students certain applicants who are twenty-one years of age or over. Such an applicant should submit a statement from his employer or former employers concerning the term, nature, and quality of his work. Self-employed persons should submit a resume of their business experience. A personal interview with the Dean or Assistant Dean is also recommended. Veterans who apply for admission as special students and who wish to qualify for assistance under one of the governmental educational programs must receive the specific approval of the Veterans' Administration.

All special students are admitted on probation and are not candidates for degrees.

Graduate Study

Professional education in business administration at the graduate level is offered for college graduates with undergraduate majors in business administration as well as for students who have been awarded undergraduate degrees in other fields. A student's initiative and analytical and creative powers are matured and tested to a degree impossible of attainment in the undergraduate years. Certain courses have been developed exclusively for graduate students; some, designed primarily for the encouragement and guidance of research activity, are conducted informally and on a basis of close personal contact between professor and student.

The School of Business Administration offers through the Graduate School the graduate degrees of Master of Business Administration, Master of Science, and Doctor of Philosophy. The Department of Economics offers through the Graduate School the programs leading to the degrees of Master of Arts and Doctor of Philosophy with a major in economics.

Candidates for the degree of Doctor of Philosophy may take a major in either business administration or economics and a minor in the other field. However, all must present the field of economic theory.

Graduates of other institutions desiring to enter as candidates for advanced degrees should submit their records, together with application for admission, to the Dean of the Graduate School. For further details, see the catalogue of the Graduate School.

The Bureau of Business Services and Research

The Bureau of Business Services and Research is an agency of the School which cooperates with The Executive Program, the University Extension Division, private business firms, foundations, and trade associations in organizing and extending the services and facilities of the School of Business Administration to the business community of North Carolina.

The Bureau designs and administers adult education programs for business executives both on and off the campus. It acts as a consultant to business firms and associations seeking to establish research programs of their own. It directs the work of Management Development, Inc., a private corporation established by the alumni of The Executive Program to continue their own development through holding Management Institutes in their home communities.

The Bureau participates and assists in forwarding the research objectives of the School and University and publishes from time to time the results of research investigation.

The Executive Program

In the fall of 1953, the University established a new program of advanced study in business administration for men in management—The Executive Program. This program is designed for persons already carrying major executive responsibility. All areas are presented from the top management point of view to increase general effectiveness of executive performance. The over-all objective is the development of broad-gauge senior management personnel.

The program is not a series of self-contained units; instead, attention is devoted to cases and problems which involve several areas. The emphasis is upon (a) the development of an understanding of the problems of *all* divisions of the business, and (b) an approach to the solution of these problems from the top management point of view.

The program consists of a combination of nine alternate "week ends" and two one-week periods of full-time residence. Each applicant for admission should be nominated by his employer and sponsored by him. Admission is highly selective; successful business experience weighs heavily in the selection.

For further details regarding this program, write to: Willard J. Graham, Director, The Executive Program, School of Business Administration, University of North Carolina, Chapel Hill.

The Southern Economic Journal

The Southern Economic Journal, established in 1933, has been published jointly by the Southern Economic Association and the University of North Carolina since 1936. It is a quarterly publication designed primarily to promote research in southern economic problems as well as to provide a medium for publishing the creative work of southern and other economists. It is now recognized as one of the distinguished American journals in its field and has both a national and international circulation.

Library Facilities

The School of Business Administration is represented in the University Library system by its own Business Administration and Social Sciences Division, housed in the east wing of the Louis Round Wilson Library building. The commodious reading room of this division has in it about 25,000 reference, reserve, and two-week books, selected for the use of its students and faculty. This is just a representative group drawn from the main library holdings of nearly a million volumes.

The Business Administration and Social Science Library has about 750 current magazines and 100 newspapers and is the center for the

extensive collection of federal, state, United Nations, and UNESCO documents which the library houses. It subscribes to the major reference tools in the field and also maintains loose-leaf services published by the Bureau of National Affairs, the Commerce Clearing House, Fitch, Moody, and Standard and Poor. A large collection of pamphlets, university publications, and ephemera is kept in the vertical file section.

A special librarian is in charge of the Division of Business Administration and Social Sciences. The staff is prepared to aid students in the collection of materials for research work. Through cooperative relationships with other libraries in the state and nation, this Division is able to assist in obtaining material which may not be currently available in the University. Special library privileges including access to the stack rooms and private carrels may be accorded graduate students.

Lectures, Observation Trips, and Clinics

Valuable supplementation to the regular curriculum is furnished by lectures by prominent businessmen and educators who are invited to the University for this purpose.

In addition to formal lectures, the School periodically arranges for business leaders to come to the University for informal discussion of current business problems in their respective fields to provide the student with a clearer understanding of actual business practice.

From time to time classes in business administration visit neighboring factories and other types of business firms to gain firsthand insight into business operations.

Endowments

In July, 1946, the Business Foundation of North Carolina, Inc., was established. Its articles of incorporation provided: "The objects and purposes for which the corporation is formed are to aid and promote, by financial assistance and otherwise, all types of education, service and research for business and industry at or through the School of Commerce and other departments of the University of North Carolina . . ." The substantial funds of the Business Foundation are a source of great potential strength for the School of Business Administration as grants to the School enable it to command important additions to the staff and provide facilities for more effective business research in the region.

An endowment was received by the School in May, 1947, through the Business Foundation, when Mr. Ralph C. Price and Mrs. Kathleen Price Bryan established the Julian Price Professorship of Insurance as a memorial to their father. It is the purpose of the Julian Price

Endowment to provide funds for "instruction in any or all phases of life insurance." Provision was made, moreover, that any excess income "shall be applied to expenses of research in said School . . . or toward scholarships."

In October, 1951, the Business Foundation accepted a generous gift from the Wachovia Bank and Trust Company. The income from this endowment is to be made available annually to the Trustees of the University by the Foundation for support of instruction and research in the field of banking. Under this endowment a distinguished professorship, known as the Wachovia Professorship in Banking, has been established in the School.

At the annual meeting of the Business Foundation in November, 1951, the directors voted to recommend to the University's Board of Trustees the establishment of two additional distinguished professorships in the School of Business Administration. These are known as the Reynolds Professorship and the Burlington Professorship. The income from generous gifts of the R. J. Reynolds Tobacco Company and of the Burlington Industries, Inc., to the Business Foundation is made available annually to support instructional and research work of the persons appointed to these professorships by the University. The current holder of the Reynolds Chair is in the field of Human Relations in Industry and that of the Burlington Chair in the field of Marketing.

The Reynolds Student Investment Trust

In October, 1952, Mr. Charles H. Babcock generously gave the University a sum of money to establish an investment trust to be managed by a Student Governing Board composed of selected students qualified to make sound investment decisions. In creating the trust, Mr. Babcock said, "It is hoped that the investment trust to be set up will serve as a useful teaching medium in Economics and Finance courses. It should bring additional realism and responsibility into the classroom, thereby being of practical benefit both to the student and the professor. The investment management problems presented should be a stimulus to investment thinking even though the student does not plan a career in banking or finance." One-half the income arising from the operation of the investment trust is to be donated to the Chapel Hill Community Chest and the other half added to the corpus of the fund.

Scholarships and Fellowships

The attention of entering freshmen is directed particularly to the Marvin B. Smith Scholarship for students who plan to enter the School of Business Administration, and to the scholarship given jointly

by the Durham Bank and Trust Company, Home Security Life Insurance Company, and Durham Realty and Insurance Company. This latter scholarship is awarded annually to a male student from Durham County who definitely is to study economics and business administration.

Scholarship opportunities for students majoring in accounting and planning careers in public accounting are offered by the Peat, Marwick, Mitchell & Co. Scholarship, established in 1953, \$500; the Williams, Urquhart & Ficklin Scholarship, established in 1955, \$500; and the Strand, Skees, Jones & Company Scholarship, established in 1955, \$500. The Haskins & Sells Foundation established in 1956 an annual award of \$500 to be presented to an outstanding accounting student at the end of the junior year.

The Westinghouse Achievement Scholarship, also for \$500 per year, is available to a rising senior in Business Administration.

The North Carolina Association of Insurance Agents established in 1956 two scholarships in the amount of \$500 each which are available to a rising junior and a rising senior majoring in insurance. These are awarded primarily on the basis of scholastic achievement.

The Allstate Insurance Award of \$150 is given each year to the most outstanding senior majoring in Property and Casualty Insurance.

The W. T. Beaty Insurance Award of \$75 is given each year to the most outstanding senior majoring in Life Insurance.

The Mary K. Brown Memorial Scholarship was established in 1931 by Mrs. James M. Brown in memory of her daughter, who for several years was secretary of the School of Commerce. It is awarded to a worthy student who is dependent upon his own efforts to secure an education.

The Andrew Warren Pierpont Memorial Scholarship in the amount of \$150 annually is awarded to a Business Administration undergraduate student who has completed his junior year. The scholarship is awarded on the basis of merit and need.

An undergraduate scholarship of \$500 for a transportation major, is made possible by a grant from the Pilot Freight Carriers, Inc., of Winston-Salem, North Carolina.

Two teaching fellowships in economics, each of a value of \$2,000, are awarded annually by the Graduate School through the School of Business Administration. The recipients may be called upon to teach or to perform other duties not to exceed one-third of their time. Applications should be made before March 1 to the Dean of the Graduate School.

There are a number of Business Foundation Scholarships of varying amounts for M.B.A. and Ph.D. candidates, as well as the Erwin Mills Scholarship and The Executive Program Scholarship, both in

the amount of \$500 and both given annually to M.B.A. candidates. In 1958 an International Business Machines Corporation Scholarship was made available to an M.B.A. candidate.

The Ernest H. Abernethy Fellowship in Southern Industry, of an annual value of \$2,000, was established in 1944. The holder is required to do research in an industry of importance to the South and to prepare a thesis as a result of the study.

The Julian Price Fellowship in Life Insurance, established in 1955, in the amount of \$1,800, is awarded annually to a graduate student in the field of insurance.

In 1958 the Haskins & Sells Foundation, Inc., established the Haskins & Sells Faculty Assistance Fellowship in the amount of \$1,000 annually.

A number of graduate and undergraduate positions are available each year for the performance of such tasks as grading papers and conducting laboratories.

Detailed information regarding all of these awards may be obtained from the Dean of the School of Business Administration.

Beta Gamma Sigma

Beta Gamma Sigma, recognized by the American Association of Collegiate Schools of Business as the national scholarship society in Commerce and Business, maintains a chapter, Alpha of North Carolina, at the University. Those students who rank scholastically in the highest 10 per cent of the senior class and the highest 3 per cent of the junior class may be considered for membership in this organization, although the number selected is generally less than indicated by the foregoing figures.

Admission

For requirements for admission to the School of Business Administration, see page 81. For the curriculum offered in the first two years while the student is formally enrolled in the General College, see page 143.

Courses and Curricula Leading to the Degree of Bachelor of Science in Business Administration

A description of courses offered by the School of Business Administration is given in Part IV of this catalogue. A list of the core courses required of all degree candidates in Business Administration is shown on page 182. The several curricula which lead to the degree of Bachelor of Science in Business Administration are described in detail in a separate catalogue of the School of Business Administration, which may be obtained by addressing a request to the Dean.

THE GRADUATE SCHOOL

- WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*
WILLIAM MARVIN WHYBURN, A.B., M.A., Ph.D., LL.D., *Vice-President for Graduate Studies and Research*
WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*
GEORGE ALEXANDER HEARD, Ph.D., *Dean*
JAMES REUBEN GASKIN, Ph.D., *Assistant to the Dean*

The Administrative Board^{1, 2}

- RICHARD PERCIVAL CALHOON, M.A., *Professor of Personnel Management* (1959)
RUPERT BAYLESS VANCE, Ph.D., LL.D., *Kenan Professor of Sociology and Research Professor in the Institute for Research in Social Science* (1959)
WILLIAM LEON WILEY, Ph.D., *Kenan Professor of French* (1959)
JOHN ALBERT PARKER, M.Arch., M.C.P., *Professor of City and Regional Planning and Research Professor in the Institute for Research in Social Science* (1960)
AUGUSTUS TAYLOR MILLER, JR., Ph.D., M.D., *Professor of Physiology* (1960)
JOHN JOSEPH WRIGHT, A.B., M.D., M.P.H., *Professor of Epidemiology in the School of Public Health* (1961)
FREDERIC NEILL CLEAVELAND, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science* (1961)
CLIFFORD PIERSON LYONS, Ph.D., *Professor of English* (1962)
WAYNE A. BOWERS, Ph.D., *Professor of Physics* (1962)
BILLY JAMES PETTIS, Ph.D., *Professor of Mathematics* (1963)
HAYWOOD ARNOLD PERRY, Ed.D., *Professor of Education and Dean of the School of Education* (1963)
WERNER PAUL FRIEDERICH, Ph.D., *Professor of German and Comparative Literature* (1963)

General Statement

The Graduate School offers opportunity for advanced study by those who have already completed a college course, in the fostering of research, in training students to become investigators and teachers in special fields of learning, and in the application of research methods to the problems of society, government, and industry. The University of North Carolina has been interested in research for more than a century and has made contributions in science, the social sciences, and the humanities. Through its research clubs and learned journals, as well as through publications and other contributions to learning made by members of its faculty, the University has acquired the authority to give advanced instruction. For this it is competent from the standpoint both of the personnel of its faculty and of the material and equipment in libraries and laboratories.

1. The Chancellor, the Dean of the Faculty, and the Director of Libraries are ex officio members of the Board.

2. Dates indicate expiration of terms.

Instruction leading to the master's degree was offered at this institution previous to the American Civil War, and such higher degrees were granted in course. Formal action with high standards in requirements was taken in 1876 to establish a system of graduate, as distinct from undergraduate, instruction. The first doctor's degree was awarded in 1883. A Graduate Bulletin, issued in 1885, showed that nearly all departments offered advanced courses. The number of students during those years was small, but the work accomplished in both the humanities and the sciences was of distinguished quality. Given distinct status in 1903 and the leadership of a dean, the Graduate School has experienced steady and, since 1920, rapid growth.

The institution is a member of the Association of American Universities. The Graduate School annually publishes a bulletin, entitled *Research in Progress*, which records analytically the scholarly contributions of the faculty and graduate students. The School operates the Bureau of Appointments, which supplies facilities for placement.

Work for advanced degrees is under the supervision of the graduate faculty. Under authority delegated by the graduate faculty, the immediate direction of the Graduate School is in the charge of an Administrative Board, of which the Dean is chairman. Special requirements and regulations made by this board are outlined in the catalogue of the Graduate School, which is published annually and is the official publication of the Graduate School.

Curricula and Degrees

The degrees under the supervision of the graduate faculty are the Master of Arts (A.M.), Master of Science (S.M.), and Doctor of Philosophy. Degrees of Master of Arts or Master of Science are offered in the fields of anthropology, art, bacteriology and immunology, biochemistry and nutrition, botany, chemistry, classics, comparative literature, dramatic art, economics and business administration, education and physical education, English, geology and geography, Germanic languages, history, journalism, mathematics, music, oral pathology, oral surgery, orthodontics, pathology, pedodontics, periodontology, pharmacology, pharmaceutical chemistry and pharmacy, philosophy, physics, physiology, political science, psychology, Romance languages, social work, sociology and rural sociology (including recreation), statistics, and zoology, and in the special curricula in comparative linguistics, folklore, industrial relations, and personnel administration. The degree of Doctor of Philosophy is offered in the fields of anthropology, bacteriology, biochemistry, botany, chemistry, classics, comparative literature, economics and business administration, education, English, geology and geography, Germanic languages, history, mathematics, music, parasitology, pharmacy, philosophy, physics, phy-

siology, political science, psychology, public health education, public health statistics, Romance languages, sanitary science, sociology, statistics, and zoology, and in the curricula in comparative linguistics and industrial relations. Minor programs for the doctorate may be obtained in the curricula in folklore and personnel administration.

Professional graduate degrees are offered in art (Master of Arts in Creative Art), business (Master of Business Administration), communication (Master of Arts in Communication), dentistry (Master of Science in Pedodontics, Master of Science in Oral Surgery, and Master of Science in Orthodontics, Master of Science in Oral Pathology, and Master of Science in Periodontology), education (Master of Education and Doctor of Education), library science (Master of Science in Library Science), music (Master of Music), nursing (Master of Science in Nursing), public health (Master of Science in Public Health, Master of Public Health, Master of Science in Sanitary Engineering, and Doctor of Public Health), recreation administration in the Department of Sociology and Anthropology (Master of Science in Recreation Administration), regional planning (Master of Regional Planning), and social work (Master of Social Work).

The Curriculum in Comparative Linguistics

Administrative Committee: The Dean, *Chairman*; Professor N. E. Eliason, *Secretary*; Professors W. W. Arndt, J. R. Gaskin, U. T. Holmes, J. E. Keller, G. S. Lane, R. W. Linker, R. T. Taylor, and B. L. Ullman

In this curriculum the facilities available within the University for the study of comparative linguistics and philology are organized. It is possible for students to submit programs of study in this subject leading to the degrees of Master of Arts and Doctor of Philosophy. It is also possible for those with majors in language to secure a minor in comparative linguistics.

The Curriculum in Comparative Literature

Administrative Committee: The Dean, *Chairman*; Professor W. P. Friederich, *Secretary*; Professors L. A. Cotten, J. G. Kunstmann, S. Selden, S. A. Stoudemire, and B. L. Ullman

The Curriculum in Comparative Literature offers students an opportunity to become familiar with the work of the leading figures of Western literature and facilitates the systematic study of subjects, problems, forms and movements common to the various literatures. All students are urged to take the majority of their courses in the individual departments and languages chosen by them (only Greek and Latin Literature courses may be taken in translation, if they are not the major field), but a strong minority of their courses must be taken in the distinctly comparative offerings.

The Curriculum in Folklore

Administrative Committee: The Dean, *Chairman*; Professor A. P. Hudson, *Secretary*; Professors J. P. Gillin, U. T. Holmes, G. B. Johnson, J. E. Keller, J. G. Kunstmann, J. P. Schinhan, and S. A. Stoudemire

The facilities of the University available in the departments of English, Germanic Languages, Music, Romance Languages, and Sociology and Anthropology have been mobilized in the interest of students who desire to undertake a major or a minor in folklore. A candidate for the A.M. degree may secure a major and a candidate for the Ph.D. degree may secure a minor in that subject.

The Curriculum in Industrial Relations

Administrative Committee: The Dean, *Chairman*; Professor H. D. Wolf, *Director*; Professors D. C. Adkins, R. P. Calhoun, F. M. Green, A. K. King, E. W. Noland, and P. W. Wager

This curriculum is based on the concept of industrial relations as an area in itself. It is selected from the course offerings of the School of Law and the School of Business Administration, and from the departments of Economics, Sociology, Political Science, Psychology, and Education. The graduate major leading to the degrees of Master of Science in Industrial Relations and Doctor of Philosophy is in the area of industrial relations rather than in a single department. Definite areas of specialization within the several departments, however, may be selected for concentrated study. When pertinent to the individual graduate program, the minor may be selected from more than one department. In all instances a common content of essential courses selected from the offerings of the several departments is required.

The Curriculum in Personnel Administration

Administrative Committee: The Dean, *Chairman*; Professor P. W. Wager, *Secretary*; Professors D. C. Adkins, A. K. King, K. Jocher, W. D. Perry, and H. D. Wolf

This curriculum mobilizes the instructional resources having relation to personnel administration which have developed in the departments of Economics and Business Administration, Education, Political Science, Psychology, Social Work, and Sociology. Opportunities are afforded qualified students to select programs of study which cut across departmental lines. Students may also choose definite areas of specialization within the respective departments which provide programs of concentrated study.

Summary of Requirements for the Degree of Master of Arts or Master of Science

1. A bachelor's degree from a recognized institution.
2. A minimum residence period of two semesters or part-time residence credit sufficient in amount for completion of the course requirement. All work credited toward degrees must be completed within a period of six years.
3. A reading knowledge of one modern foreign language. This requirement must be satisfied prior to admission to candidacy.
4. Application for admission to candidacy for the master's degree must be filed four months before the date at which the degree is expected.
5. Thirty semester hours, eighteen to twenty-one of which must be in the department of the major, and nine to twelve in the department of the minor.
6. A written examination in the field of the major.
7. An oral examination covering the entire field of study.
8. A thesis.

Summary of Requirements for the Degree of Doctor of Philosophy

1. Admission is the same as for the master's degree.
2. A minimum of three years of graduate study, at least one of which must be at the University of North Carolina.
3. A reading knowledge of French and German.
4. Application for admission to candidacy for the Ph.D. degree must be filed one academic year, or two semesters, before the date at which the degree is expected.
5. A major adequately covering the field of major interest and at least eighteen to twenty-four semester hours in a minor, which may or may not be in a different department.
6. A preliminary oral examination.
7. A written examination in the field of major interest.
8. An oral examination covering the entire field of study.
9. A dissertation.

Summary of Requirements for Professional Degrees

Requirements for professional graduate degrees, under the supervision of the Graduate Faculty, are described in the Graduate Catalogue and in some special catalogues of schools and departments concerned. Since these requirements differ in some respects from those summarized above, the special catalogues for the following should be consulted: School of Business Administration, Department of City and Regional Planning, School of Dentistry, School of Education,

School of Library Science, School of Nursing, School of Public Health, School of Social Work, and the Department of Radio, Television, and Motion Pictures.

Catalogue of the Graduate School

For information concerning the graduate faculty, fields of research, fellowships and other aids, expenses and tuition, and for regulations governing courses of study, credits, admissions, examinations and higher degrees, references must be made to the special catalogue of the Graduate School.

THE SUMMER SESSION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

ARNOLD KIMSEY KING, Ph.D., *Director of the Summer Session*

The Administrative Board

JAMES LOGAN GODFREY, Ph.D., *Dean of the Faculty*

CECIL SLATON JOHNSON, Ph.D., *Dean of the General College*

JOSEPH CARLYLE SITTERSON, Ph.D., *Dean of the College of Arts and Sciences*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

MAURICE WENTWORTH LEE, Ph.D., *Dean of the School of Business Administration*

ARNOLD PERRY, Ed.D., *Dean of the School of Education*

JAMES OSLER BAILEY, Ph.D., *Professor of English*

GERALD ALAN BARRETT, A.B., LL.B., *Associate Professor of Business Law*

CARL HAMILTON PEGG, Ph.D., *Professor of History*

ARTHUR ROE, Ph.D., *Professor of Chemistry*

General Statement

One of the earliest summer schools in America was established at the University of North Carolina in 1877. Eighteen sessions were held during the next thirty years. The Summer Session has operated annually since 1907 and has come to be an integral part of the academic organization of the University.

Curricula and courses that are offered during the Summer Session in all departments, schools, and colleges are identical with those of the fall and spring semesters. With a few exceptions, students may make progress toward fulfilling requirements for all undergraduate and graduate degrees offered by the University. All academic matters and all matters involving student activities in the summer are under the direction of the deans and departmental chairmen who handle these areas in the fall and spring semesters.

Admission

The Summer Session which is divided into two terms of approximately six weeks each is planned especially to meet the needs of the following groups: (1) graduates of accredited high schools who are entering the freshman class, (2) undergraduate and graduate students who are meeting degree requirements at this institution, (3) undergraduate and graduate students who desire to take courses for transfer to other institutions, (4) teachers and administrators who desire to meet state certification regulations, and (5) other students who have special educational objectives and are not applicants for credit toward a degree.

Women students are eligible for admission to all University classes in the summer.

Persons who desire to be admitted or readmitted in the Summer Session as regular undergraduate students should write to the Director of Admissions and as regular graduate students to the Dean of the Graduate School. Those who desire a copy of the Summer Session Catalogue or other information and those who desire to enroll in the summer as visiting students should write to the Director of the Summer Session, Box 1251, Chapel Hill, North Carolina.

THE SCHOOL OF LAW

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

HENRY P. BRANDIS, JR., A.B., LL.B., LL.D., *Dean*

The Administrative Board

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill, ex officio*

HERBERT R. BAER, A.B., LL.B., *Professor of Law*

JAMES L. GODFREY, Ph.D., *Professor of English History and Dean of the Faculty*

FRANK WILLIAM HANFT, A.B., S.J.D., *Professor of Law*

CLIFFORD P. LYONS, Ph.D., *Professor of English*

ROBERT HASLEY WETTACH, M.A., S.J.D., *Professor of Law*

General Statement

The School of Law, now in its one hundred and fourteenth year and with a regular faculty of thirteen plus five lecturers, offers a three-year course leading toward the LL.B. degree. It is on the approved lists of the North Carolina Board of Law Examiners, the State Department of Education of the State of New York, and the American Bar Association. It is a member of the Association of American Law Schools.

While greater emphasis is placed upon North Carolina decisions, statutes, and practices than upon those of other states, legal materials are studied as a part of the Anglo-American common-law system. Thus the school prepares its students for practice in other states as well as in North Carolina.

Candidates for admission to the School of Law must have completed, with a C average, a minimum of three years of work acceptable toward a baccalaureate degree at an approved college or university. If this work has followed the combined degree program offered by the College of Arts and Sciences or by the School of Business Administration of this University, the student may receive the bachelor's degree in Arts or in Business Administration, as the case may be, upon the satisfactory completion of the first year in law. Though, as indicated above, students may be admitted to the School of Law on the completion of a minimum of three years of college work, the School recommends completion of the work for a degree before entering upon the study of law. In recent years more than three-fourths of the students in the School have earned degrees prior to beginning the study of law.

Applicants are also required to take and receive a minimum score on the Law School Admission Test. Details may be found in the Law School catalogue.

Beginning students are admitted to the fall semester or to the Summer School, but not to spring semester.

The curriculum covers a period of six semesters.

The School of Law is located in Manning Hall. The Law Library, in the charge of a law librarian and a staff of assistants, now approximates 70,000 volumes.

The students of the School of Law are regularly enrolled in the University, enjoy all the educational privileges of University students, and are amenable to general University regulations and to the special regulations of the School.

The summer session of the School of Law offers opportunities for students to supplement the work of the regular year by additional courses, some of which are not otherwise available, or to shorten the calendar period of study for the law degree. The summer faculty normally includes as visiting professors distinguished law teachers from other universities.

Opportunities for individual work are afforded to especially qualified students through membership on the student editorial staff of the *North Carolina Law Review*.

For further information, write to the Dean of the School of Law for the separate bulletin of the School.

THE SCHOOL OF MEDICINE

- WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*
WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*
HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*
WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean*
CARL ELMORE ANDERSON, Ph.D., *Assistant Dean*
WILLIAM LEROY FLEMING, M.S., M.D., *Assistant Dean*
WILLIAM PERRY RICHARDSON, A.B., M.D., M.P.H., *Assistant Dean*
JOHN MITCHELL SORROW, B.S., M.D., *Assistant to the Dean*

Advisory Board of the Division of Health Affairs

- HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*
WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*
JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*
EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*
ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*
ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*
EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*

The Advisory Committee of the School of Medicine

- WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine and Professor of Medicine*
CARL ELMORE ANDERSON, Ph.D., *Assistant Dean and Associate Professor of Biochemistry and Nutrition, ex officio*
WILLIAM PERRY RICHARDSON, A.B., M.D., M.P.H., *Assistant Dean and Professor of Preventive Medicine, ex officio*
KENNETH MERLE BRINKHOUS, A.B., M.D., *Professor of Pathology*
CHARLES HOYT BURNETT, A.B., M.D., *Professor of Medicine*
THOMAS CULLOM BUTLER, A.B., M.D., *Professor of Pharmacology*
ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital and Professor of Hospital Administration*
EDWARD CHARLES CURNEN, JR., A.B., M.D., *Professor of Pediatrics*
JOHN HOWARD FERGUSON, M.A., M.D., *Professor of Physiology*
WILLIAM LEROY FLEMING, M.S., M.D., *Professor of Preventive Medicine*
WESLEY CRITZ GEORGE, Ph.D., *Professor of Histology and Embryology and Chairman of the Library Committee, ex officio*
GEORGE CAVERNO HAM, M.D., *Professor of Psychiatry*
CHARLES WRIGHT HOOKER, Ph.D., *Professor of Anatomy*
JOSEPH LOGAN IRVIN, Ph.D., *Professor of Biochemistry and Nutrition*
DANIEL ALLAN MACPHERSON, Ph.D., *Professor of Bacteriology*
ROBERT ALEXANDER ROSS, S.B., M.D., *Professor of Obstetrics and Gynecology*
NATHAN ANTHONY WOMACK, B.S., M.D., *Professor of Surgery*
ERNEST HARVEY WOOD, B.A., M.D., *Professor of Radiology*

Committee on AdmissionsEDWARD MCGOWAN HEDGPETH, A.B., M.D., *Chairman*

WILLIAM EDWARD DOSSEL, Ph.D.

AUGUSTUS TAYLOR MILLER, Ph.D., M.D.

CHARLES ROBERTSON VERNON, A.B., M.D.

HUBERT CLIFTON PATTERSON, JR., A.B., M.D.

Historical Background

The School of Medicine was established in 1879 under the direction of Dr. Thomas W. Harris. A course in theoretical and practical medicine was offered under the preceptorial system, but the plan was found impracticable and was abandoned in 1886. In 1890, a more orderly and logical arrangement of the subjects in the medical course having developed, it became possible for an institution without clinical facilities to offer instruction in the preclinical subjects, and the school was reopened with Dr. Richard H. Whitehead as Dean and Professor of Anatomy. Under his guidance it soon won recognition for thoroughness of instruction and excellence in scholarship and has since continued without interruption. At first the course covered only one year, but in 1896, the medical course having been extended in the better class schools to four years, a two-year course was inaugurated. In 1900, the School of Medicine was incorporated as an integral part of the University and was reorganized to meet the requirements of the first two years of the full four-year course leading to the degree of Doctor of Medicine. In 1902, it was expanded into a four-year school, and the clinical subjects of the third and fourth years were offered in Raleigh under the direction of Dr. Hubert A. Royster as Dean. After a few years of successful operation this plan had to be abandoned in 1910 for lack of financial support, and the clinical years were discontinued.

From 1911 through 1952 the first two years of the medical curriculum were continued at Chapel Hill, and students satisfactorily completing this curriculum were transferred to the leading four-year schools of medicine in the East, South, and Middle West for the completion of their medical training. Approximately 25 percent of the physicians now in active practice in North Carolina received the first two years of their medical training at the University.

The General Assembly of 1947 provided funds for the construction of a four-hundred-bed general hospital, enlargement of the Medical Science Laboratory Building, a school of nursing and residence halls for nurses and intern and resident staff, and authorized the expansion of the two-year school into a full four-year curriculum as a part of a general state-wide program for better hospitalization and medical care in North Carolina.

Subsequently, General Assemblies have provided funds for a one-hundred-bed tuberculosis and chronic chest disease hospital, for a

seventy-bed psychiatric wing to the general hospital, and for a dental clinic building for the School of Dentistry, all of which have been completed and are in operation.

The expansion now completed provides again for instruction in the clinical years, this time on the campus at Chapel Hill. With the opening of the fall session in 1952, a junior class was admitted. In the fall of 1953, all four classes were in training and the first class graduated in 1954. The School has been a member of the Association of American Medical Colleges since 1908 and has the full approval of the Council on Medical Education and Hospitals of the American Medical Association.

Preparation for Medicine and Requirements for Admission

Students preparing for the study of medicine should secure a broad cultural education. Specific requirements for admission to the School of Medicine must be met but emphasis is placed on the attainment of a liberal education leading to the completion of a four-year course and a B.A. or B.S. degree. Alternate plans which are less desirable are a special course leading to the B.S. degree in Medicine and a three-year plan of academic work without regard to the Bachelor's degree. If the latter plan is chosen, careful regard should be given to meeting the requirements for admission to the School of Medicine.

It is because of the widening social and economic responsibilities of medicine that students in preparing for this profession should take as many courses as possible in the humanities, arts and social sciences. Students are encouraged to select their majors freely in accord with their desires and interests but with the general effort to gain a broad background in fields other than the sciences related to the study of medicine.

Three years of accredited college work (96 semester hours or 144 quarter hours). This period of study should include as minimum: 8 or more semester hours (12 or more quarter hours) of inorganic chemistry; 8 semester hours (12 or more quarter hours) of organic chemistry; 8 semester hours (12 or more quarter hours) of biology; 8 semester hours (12 or more quarter hours) of physics (which must have required trigonometry as prerequisite); English—such knowledge as is ordinarily required of a candidate for a degree in college, usually courses required of freshmen and sophomores—12 or more semester hours (20 or more quarter hours); foreign language—such knowledge as is ordinarily required of a candidate for a degree in college (a minimum of three courses for college credit, or 9 semester hours).

There is not sufficient space in the medical schools to admit all students who meet the quantitative standards. For this reason, and because it requires more than average intelligence and aptitude to complete satisfactorily the medical curriculum, the quality of the student's undergraduate work is of the greatest importance. All students interested in the study of medicine should attempt to stand in the upper third of their academic classes.

While a high grade of scholarship is probably the best criterion for predicting achievement in medical school, the personal qualifications of applicants are of the highest importance. Moral character is the most important prerequisite for entering the medical profession. No school wishes to train prospective physicians who lack ethical standards or a sense of social responsibility.

All admissions are decided by the Dean and a special committee on admission, after approval of credentials by the Director of Admissions. The Dean and the committee reserve the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of medicine.

Medical Curriculum

The course in medicine embodies a four-year curriculum. The catalogue of the School of Medicine provides a description of the courses.

Special Students

In addition to teaching medical students and graduate physicians, various departments in the Medical School offer instruction to students in related professional schools and the Graduate School. Students interested in such instruction should consult the head of the department concerned.

For details of the curricula leading to the Bachelor of Science degree in Medical Technology and in Physical Therapy see pages 146 and 161, respectively, of this catalogue and consult the special catalogue of the School of Medicine.

THE SCHOOL OF PHARMACY

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

EDWARD ARMOND BRECHT, Ph.D., *Dean*

Advisory Board of the Division of Health Affairs

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*

General Statement

Instruction in pharmacy was offered at the University in the School of Medicine and Pharmacy from 1880 to 1886 and 1890 to 1894, but very few students elected the course. Finally, in March, 1897, in response to urgent requests made by the pharmacists of the state, the present school was established, and Edward Vernon Howell was appointed Professor of Pharmacy and Dean.

The School, in 1959 will occupy, for the first time, a new building constructed for its use. The building with 69,240 square feet of floor space has complete facilities for the undergraduate and graduate curricula.

The minimal offerings of the School are based on four years of study which lead to the degree of Bachelor of Science in Pharmacy (S.B. in Phar.).

The School was admitted to membership in the American Association of Colleges of Pharmacy in 1917. This organization was formed for the promotion of thorough scientific work in the profession of pharmacy. It maintains high standards for membership based on the number and training of the faculty, the thoroughness of the work offered, the quality of the curriculum, the number of students, the financial support of the school, and the facilities for carrying on the work.

The School of Pharmacy of the University of North Carolina is accredited by the American Council on Pharmaceutical Education as a Class A school. The School is fully accredited by all state examining boards.

Freshmen are admitted by certificate from accredited schools or by examination. Candidates for admission as transfer students must have credit for the academic courses in the first-year curriculum in the School of Pharmacy, substituting credit in Zoology 41 for Pharmacy 1, Pharmacy 10, and Pharmacy 15. Each application for admission must be approved by the Director of Admissions of the University before the application can be considered by the Committee on Admissions of the School of Pharmacy. Applications should be filed as early as possible, preferably in the period before February 1. The fall semester, beginning in September, is the only period for which beginning and transfer students are accepted.

A student who has completed one or more years of accredited work in a recognized school of pharmacy and submits satisfactory evidence of having completed the entrance requirements and courses equivalent to those prescribed in the curriculum required for the degree of S.B. in Pharmacy may be admitted with advanced standing and proceed for this degree. The minimum requirement of residence for a degree is a period of two semesters within the period of twelve months. A full year's work comprising at least thirty semester hours must be completed by a transferring student. Beginning January 1, 1938, the American Association of Colleges of Pharmacy has required of its member colleges that students transferring from a non-pharmaceutical college must spend a minimum of three years in a standard college of pharmacy in order to be graduated with a degree of S.B. in Pharmacy.

The School of Pharmacy is compelled by its physical facilities to limit the number of beginning and transfer students.

The School of Pharmacy recognizes that its graduates may elect to pursue one or another of related but definitely different forms of pharmaceutical practice and has provided such specialized training.

Graduate degrees offered in the School of Pharmacy are administered by the Graduate School of the University of North Carolina. These degrees are Master of Science (S.M.) and Doctor of Philosophy (Ph.D.). The two majors available are pharmacy and pharmaceutical chemistry.

For further information, please write to the Dean of the School of Pharmacy for the special catalogue of the School.

THE SCHOOL OF PUBLIC HEALTH

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean*

Advisory Board of the Division of Health Affairs

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*

General Statement

The School of Public Health is the fourth oldest professional school of its kind in the United States and one of ten North American schools accredited by the American Public Health Association. It is a member school of the University's Division of Health Affairs, which is the focal training and service point for an integrated state-wide health program.

The special disciplines of public health are biostatistics, epidemiology, public health administration, health education, public health nursing, sanitary engineering, maternal and child health, parasitology, nutrition, and mental health. Preparation of students in these special disciplines and in the subject areas basic to public health—physical, biological, and social sciences—is a major objective of the School. The final goal of instruction is the production of interdisciplinary public health teams—skilled in working together as a team and with the community for the solution of community health problems and for the long-term goal of total community health.

Toward this end many communities of the state and their agencies assist as field centers and laboratories for student-faculty teams from the professional school. For longer periods of field experience, training units have been established in twenty-nine city, county, and district health departments in North Carolina and thirteen other states.

The School of Public Health also enjoys the active cooperation of the State Board of Health at Raleigh. Members of that staff give lectures and exercises in their special fields, and students have an opportunity to observe and study at first hand the practice, methods, and materials of an efficient state level health organization. Relationships are maintained too with North Carolina Memorial Hospital, the Institute of Statistics at North Carolina State College in Raleigh, with Duke University and Duke Hospital in Durham, and with Watts Hospital in Durham. The staffs of the U. S. Public Health Service, the Children's Bureau, and other agencies of the U. S. Department of Health, Education, and Welfare participate in the teaching program of the School of Public Health through lectures, discussions, consultations, and research.

In addition to its academic responsibilities, represented by departments for each of the disciplines mentioned above, the School of Public Health has two other major functions: research and service to the state and region. Research is conducted by all departments and intensively by the non-academic Department of Experimental Medicine. Similarly, all departments render field service to the state.

Graduate degrees offered by the School of Public Health are the Master of Science (S.M.), Doctor of Philosophy (Ph.D.), and the following professional graduate degrees: Master of Science in Public Health (M.S.P.H.), Master of Public Health (M.P.H.), Doctor of Public Health (Dr.P.H.), and Master of Science in Sanitary Engineering (M.S.S.E.). All requirements concerning these degrees are administered by the faculty of the School of Public Health with the approval of the Administrative Board of the Graduate School.

An undergraduate degree, Bachelor of Science in Public Health Nursing (B.S.P.H.N.), is awarded to graduate nurses who comply with all requirements of the public health nursing course and who have had the required years and courses in college. There are also a four-year program leading to the Bachelor of Science in Public Health (B.S.P.H.) and a four-year program developed cooperatively with the School of Education for the degree of Bachelor of Science in Health Education (B.S. in H.E.). The first two degrees are administered by the School of Public Health, the third, by the School of Education.

The School of Public Health administers the Certificate in Public Health (C.P.H.) and Certificate in Public Health Nursing (C.P.H.N.).

For more detailed information concerning preparation and admission requirements and proposed curricula leading to degrees, see the catalogue of the School of Public Health.

THE SCHOOL OF DENTISTRY

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean*

WILLIAM WELLESLEY DEMERITT, D.D.S., *Assistant Dean*

Advisory Board of the Division of Health Affairs

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*

Advisory Committee of the School of Dentistry

JOSEPH LOGAN IRVIN, Ph.D., *Professor of Biochemistry and Nutrition*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Professor of Pedodontics and Dean of the School of Dentistry, Chairman*

KENNETH MERLE BRINKHOUS, A.B., M.D., *Professor of Pathology*

THOMAS CULLOM BUTLER, A.B., M.D., *Professor of Pharmacology*

MARVIN EDWIN CHAPIN, D.D.S., *Professor of Oral Surgery*

WILLIAM WELLESLEY DEMERITT, D.D.S., *Professor of Pedodontics and Assistant Dean of the School of Dentistry*

DAVID PHILLIP DOBSON, D.D.S., M.S., *Professor of Prosthodontics*

KERMIT FREDERICK KNUDTZON, D.D.S., M.S., *Professor of Oral Diagnosis and Treatment Planning*

JOHN HOWARD FERGUSON, M.A., M.D., *Professor of Physiology*

LESTER BODINE HIGLEY, D.D.S., M.S., *Professor of Orthodontics*

CHARLES WRIGHT HOOKER, Ph.D., *Professor of Anatomy*

GROVER CLEVELAND HUNTER, JR., A.B., D.D.S., M.S., *Professor of Periodontology and Oral Pathology and Director of Dental Hygiene*

KERMIT FREDERICK KNUDTZON, D.D.S., *Professor of Practice Administration and Dental Science*

ROY LAWRENCE LINDAHL, B.S., D.D.S., M.S., *Professor of Pedodontics*

DANIEL ALLAN MACPHERSON, Ph.D., *Professor of Bacteriology*

ROGER EDWARD STURDEVANT, D.D.S., *Professor of Operative Dentistry*

Committee on Admissions and Aptitude Testing

ROGER EDWARD STURDEVANT, D.D.S., *Chairman*

CORNELIUS TIMPSON KAYLOR, Ph.D.

MICHAEL KALEN BERKUT, Ph.D.

MONTE GEORGE MISKA, D.D.S.

General Statement

While the North Carolina Dental Society had given considerable thought to the organization of a School of Dentistry even as early as 1921 in the appointment of the first Dental College Committee, it was not until 1947 that a basic dental survey of North Carolina was authorized by the Society. The General Assembly of 1949, having studied the findings and recommendations of the survey, appropriated funds for the establishment of a School of Dentistry.

The new building of the School of Dentistry is an integral part of the total building program of the Division of Health Affairs, including the Memorial Hospital, Tuberculosis Hospital, the School of Medicine for the teaching of the basic sciences, School of Nursing, and the intern and resident quarters.

Dentistry in North Carolina has been given a signal opportunity to make a contribution to the health sciences in its close working relationship with the schools of the Division of Health Affairs and the Memorial Hospital. Students of dentistry and medicine attend comparable basic science courses, and they are required to meet equally high academic standards in all areas.

Each class will be limited to fifty students. Priority in selection of students will be given to residents of North Carolina, and secondly, to residents of the Southeastern states.

A two- and a four-year curriculum for the training of dental hygienists was activated in the fall of 1953. Girls who have graduated from high school are permitted to enter this program for training. The two-year curriculum will lead to certification, while the four-year curriculum will lead to a bachelor's degree. Priority for admission will be given to North Carolina residents.

Preparation for Study of Dentistry and Requirements for Admission

Students preparing for the study of dentistry should spend as much time securing a well-rounded cultural education as their age and financial resources permit. If possible they should complete the regular four-year course leading to the A.B. or S.B. degree. If this is impracticable they may take the special course leading to the S.B. in Dentistry, or they may take three years of academic work without the bachelor's degree in view, but with careful regard to meeting the specific requirements for admission to the School of Dentistry.

Requirements for Admission

Three years of accredited college work (96 semester hours) are required for admission. This period of study should include eight or more semester hours of inorganic chemistry; a course in qualitative and in quantitative analysis; eight semester hours of organic chemistry; eight semester hours of biology; eight semester hours of physics (which must have required trigonometry as a prerequisite); and English—such knowledge as is ordinarily required of candidates for a degree in an approved college (usually the courses required of freshmen and sophomores).¹ In addition, courses in volumetric quantitative analysis, comparative anatomy, vertebrate embryology, and modern physics are recommended.

Because of the widening social economic interests of the dental profession, students preparing to enter it should take, in addition to the requirements in the sciences, as many courses as possible in social science, history, literature, economics, philosophy, and psychology.

There are not sufficient facilities in the dental schools of the country to admit all students who meet the quantitative standards. For this reason, and because it requires more than average intelligence and aptitude to complete satisfactorily the dental curriculum, the quality of the student's undergraduate work is of the greatest importance.

National Aptitude Test

All prospective students must complete the National Aptitude Test, given by the Council on Dental Education of the American Dental Association, before they will be considered for admission to the School of Dentistry. This test will be given in Chapel Hill and at centers in other states at designated intervals. Additional information regarding the test may be secured when application for admission to the School of Dentistry has been completed.

Personal Qualifications

While a high grade of scholarship and digital dexterity are probably the best criteria for predicting achievement in dental school the personal qualifications of applicants are of the highest importance. Moral character is the most important prerequisite for entering the dental profession. No school wishes to train prospective dentists who lack either ethical standards or a sense of social responsibility.

1. While a modern foreign language is recommended, it is not a requirement for admission to the School of Dentistry. However, all high school deficiencies must be satisfied as they pertain to admission to the University.

Dental Curriculum

The course in dentistry embodies a four-year curriculum following admission to the School of Dentistry. The catalogue of the School of Dentistry provides a description of the courses and other details pertaining to the study of dentistry.

Dental Hygiene Curriculum

A two-year curriculum leading toward a certificate and a four-year curriculum leading toward the degree of B.S. in Dental Hygiene are offered. The regular School of Dentistry catalogue gives complete information regarding curriculum, costs, and other items of information. This catalogue may be secured by writing to the Director of Dental Hygiene, School of Dentistry.

Graduate Programs

See under the Graduate School, page 190.

THE SCHOOL OF NURSING

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

ELIZABETH LOUANNA KEMBLE, R.N., B.S., A.M., Ed.D., *Dean*

Advisory Board of the Division of Health Affairs

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

ELIZABETH LOUANNA KEMBLE, R.N., B.S., A.M., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*

NATHAN ANTHONY WOMACK, S.B., M.D., *Chairman of the Medical Board of North Carolina Memorial Hospital*

General Statement

The School of Nursing offers a four-year curriculum leading to the degree Bachelor of Science in Nursing. The program of studies is designed to provide well-organized learning experiences leading to the graduation of students who have acquired the necessary knowledges, skills, attitudes, and appreciations to function effectively in beginning positions of the profession, including public health nursing.

The program of studies covers two academic and two calendar years. Courses are planned to include the social, biological, and physical sciences, the humanities and nursing. Provisions are made for students to receive selected learning experiences in the hospitals, clinics, and a variety of institutions and agencies in the state. Through these planned experiences students acquire the understandings essential to maintenance of health, prevention of disease, and the care of those who are sick.

The School of Nursing also provides opportunity for graduates of diploma programs to receive comparable preparation. The length of this program is determined on an individual basis, depending in part upon previous preparation, experience, and the results of graduate nurse qualifying examinations.

Students in the School of Nursing enjoy all the privileges of the University and are subject to all general regulations.

Classes are admitted in the fall semester of each year.

Requirements for Admission

Applicants must first meet the requirements for admission to the University. Academic admission requirements of the University and the School of Nursing include the following:

English	4	
Foreign Language	2	(one language)
Algebra	1½	
Plane Geometry	1	
Social Science	2	(one unit to be United States History)
Natural Science	1	(Chemistry, including laboratory, preferred)
Physics, Biology or General Science	1	
Electives	2½	
	<hr/>	
	15	

All deficiencies must be removed before admission to the School of Nursing.

In addition to satisfactory academic achievement, applicants are required to present evidence of physical and emotional fitness for nursing.

It is preferable for applicants to be between the ages of 17 and 25. Exceptions will be considered on an individual basis.

Applicants who have had one or more years of college work and who wish to transfer to the University of North Carolina School of Nursing are required to present at least a C average. Credits for certain courses at a recognized college or university are transferable to the University.

Eligibility for admission of registered nurses will be considered on an individual basis.

Further information may be obtained by writing to the Director of Admissions, University of North Carolina.

All admissions are decided by the Dean and a special committee on admission of the School of Nursing, after approval of credentials by the Director of Admissions of the University. This committee reserves the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of nursing.

Graduate Program

See under the Graduate School, page 190.

THE SCHOOL OF SOCIAL WORK

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

ARTHUR EMIL FINK, Ph.D., M.S.W., *Dean*

The Administrative Board^{1, 2}

EARL EMMETT BAUGHMAN, Ph.D., *Associate Professor of Psychology* (1959)

HARRY DEMERLE WOLF, Ph.D., *Professor of Economics* (1959)

ALAN KEITH-LUCAS, M.A. (Cantab.), M.S.S.A., Ph.D., *Professor of Social Work* (1960)

JAMES REUBEN GASKIN, Ph.D., *Associate Professor of English and Assistant to the Dean of the Graduate School* (1960)

FREDERIC NEILL CLEVELAND, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science* (1961)

EDWARD WILLIAM NOLAND, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science* (1961)

FLOYD HUNTER, Ph.D., *Professor of Social Work* (1962)

JOHN ALEXANDER McMAHON, LL.B., *Professor of Public Law and Government* (1962)

CHARLES HOYT BURNETT, A.B., M.D., *Professor of Medicine* (1963)

JOHN CHARLES CASSEL, B.Sc., M.B., B.Ch., M.P.H., *Associate Professor of Epidemiology and Clinical Assistant Professor of Medicine* (1963)

General Statement

The School of Social Work has developed from an earlier School of Public Welfare which was established in 1920 in accordance with the University's policy of meeting the varying needs of the state and the Southern region. In 1931 the School of Public Administration enlarged and extended the program for the training of qualified persons for public positions. An essential division within that school was the Division of Public Welfare and Social Work. In 1936 the Division of Public Welfare and Social Work became a Division of the Graduate School and in 1950, by action of the Board of Trustees, it was named the School of Social Work. The School of Social Work is a member of the Council on Social Work Education. Its basic curriculum, including its program for the training of psychiatric social workers, is fully accredited by the Council.

The School of Social Work consistently has emphasized sound training for the operation of the social services, whether those services are under public or private auspices. However, by reason of the na-

1. The Chancellor, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

2. Dates indicate expiration of terms.

ture of many of the problems in non-urban areas, there has been special reference to the unique opportunities for training workers for services in those areas.

Opportunity is offered for concentration in the second year of the master's program, in public assistance, child welfare (including foster care, adoption and institutions), family counseling, psychiatric social work, medical social work, and the correctional services such as casework in prison, and courts. Training in social agency administration is available as well as for community welfare organization and social welfare research.

The work offered leads to the degree Master of Social Work. The applicant must have received a bachelor's degree from a college or university of recognized standing, with eighteen semester hours in the social sciences, including anthropology, economics, history, political science, psychology, and sociology, at least six semester hours of which must be in advanced courses in one of these fields.

The Master of Social Work degree is based upon a two-year program, consisting of two semesters of the first year followed by the second term of summer school and the fall and spring semesters. Admission to the first year is in September, while the second year program begins in mid-July and is completed the following June. There is a period of supervised field work in each year of the program.

The School of Social Work is located in Alumni Building.

The students in the School of Social Work are regularly enrolled in the University and are amenable to all general University regulations and to the special regulations of the School.

For further information, please write to the Dean of the School of Social Work for the separate bulletin of that School.

THE SCHOOL OF LIBRARY SCIENCE

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

GEORGE ALEXANDER HEARD, Ph.D., *Dean of the Graduate School*

LUCILE KELLING HENDERSON, A.B., B.L.S., *Dean*

The Administrative Board ¹

ALFRED GARVIN ENGSTROM, Ph.D., *Professor of French*

²CARLYLE JAMES FRAREY, A.B., M.S., *Associate Professor of Library Science*

LUCILE KELLING HENDERSON, A.B., B.L.S., *Dean and Professor of Library Science*

C. HUGH HOLMAN, Ph.D., *Professor of English*

MARGARET ELLEN KALP, B.A., M.A. in L.S., *Associate Professor of Library Science*

³ROBERT ALFRED MILLER, B.S. in L.S., A.M., *Assistant Professor of Library Science*

CORYDON PERRY SPRUILL, Jr., A.B., B.Litt. (Oxon.), *Professor of Economics*

General Statement

The School of Library Science opened in September, 1931, as a unit of the University of North Carolina. Made possible originally by a grant from the Carnegie Corporation, it was the culmination of a series of library science courses offered in the summer and regular terms beginning in 1904. The School is accredited by the American Library Association and the Southern Association of Colleges and Secondary Schools.

Quarters for the School, comprising rooms for laboratory work, lectures, and seminars, a stack area for the School's library, and offices for the teaching and administrative staff, cover the entire top floor of the west wing of the Louis Round Wilson Library building.

The town school system maintains high school and elementary school libraries available for observation. Within driving distance of from thirty minutes to two hours are the State Library; the school and public library systems of Durham, Raleigh and Greensboro; and the libraries of Duke University, the North Carolina State College of Agriculture and Engineering and the Woman's College of the University of North Carolina.

The School offers three programs: an eighteen-semester-hour undergraduate program for students interested in preparing for positions as librarians in the public schools; a basic one-year program preparing for beginning positions; and a master's program.

1. The Chancellor is an ex officio member of the Board.

2. Absent on leave, fall semester, 1958-1959.

3. Absent on leave, 1958-1959.

Applicants may enter the School at the beginning of any term, but the beginning of the summer session or fall semester is recommended in order to insure a full program of work. Some courses have prerequisites which cannot be taken unless the curriculum is begun at one of these times.

A bachelor's degree from an approved college or university is required for admission to the program leading to a degree. A reading knowledge of modern languages is essential to satisfactory work in many types of libraries and very desirable in others. Latin is important as a basis for other languages.

Eighteen semester hours in an approved library science program is a prerequisite for admission to the program for the degree of Master of Science in Library Science.

A minimum residence of two semesters in the University of North Carolina is required for any degree. All work credited toward a degree must be completed within a period of six years.

The courses of the regular session are repeated in the summer session. The same requirements apply as in the regular session.

The present demand for professional librarians is unusually great. Requests are received almost daily from various types of libraries in this country and overseas for recommendations for all sorts of positions. Although the School cannot guarantee positions for its graduates it assists them not only in securing their first positions, but in advancing to other positions later.

Application for admission to the School for either the regular session or the summer session should be made as far in advance as possible of the session to be attended. Application should be made on forms which are secured from *Miss Jean Freeman, Admissions Officer, School of Library Science, The University of North Carolina, Chapel Hill, N. C.*

For further information regarding the undergraduate courses see Department of Library Science, Part IV; for the graduate courses see the special catalogue of the School.

Part Four

ACADEMIC DEPARTMENTS

DESCRIPTION OF COURSES

In this section are listed and described all courses offered in the regular sessions of the University except those in the professional schools of Law, Medicine, Dentistry, Nursing, Pharmacy, Public Health, Library Science, and Social Work. For courses in these schools see the special bulletins.

The requirements for majors are shown, after the faculty lists, in connection with the materials concerning the various departments.

The work of the University, except in the Schools of Medicine and Dentistry, is arranged and offered on the semester system, the regular session being divided into two approximately equal parts called the fall and spring semesters. The summer session is divided into two terms.

Work is valued and credited toward degrees by semester hours, one such hour being allowed for each class meeting a week for a semester, laboratory or field work counting one hour for each two hours of work in laboratory or field, and work in studio (art) counting one hour for each three hours. In the following announcements of courses the numbers in parentheses following the descriptive titles show the credits allowed in semester hours. Except in the case of courses meeting regularly three times a week, the number of actual hours a course meets will be found in the description of the course. The meetings of a few advanced courses, however, are arranged by the professor in charge.

In the event that required freshman subjects are taken after a student begins his junior year or required sophomore subjects after he begins his senior year, such subjects carry half credit only.

Courses numbered from 1 through 99 are for undergraduates only; those numbered from 100 through 199 are for advanced undergraduates and graduates; those numbered from 200 to 400 are for graduates only. Courses in chemistry for undergraduates are grouped by decades under the headings inorganic, analytical, organic, etc. Undergraduates may not take courses numbered above 200 except by special permission of the instructor in the course and the chairman of the department. Permission must also be secured from the Dean of the Graduate School and the dean of the college involved. Courses numbered from 1 to 100 carry no credit toward any advanced degree.

DEPARTMENT OF AIR SCIENCE

Professor: F. W. SWANN, *Lieutenant Colonel, USAF*

Assistant Professors: W. D. LOCKE, *Major, USAF*; C. J. HALL, *Captain, USAF*;
T. R. HUMPHREY, *Captain, USAF*; W. E. MOORE, *Captain, USAF*

Administrative: A. D. BOYER, *Master Sergeant, USAF*; J. L. JUSTICE, *Technical Sergeant, USAF*; C. E. RECTOR, *Staff Sergeant, USAF*

Supply: E. J. HARRISON, *Technical Sergeant, USAF*

General Information

The purpose of the Air Force Reserve Officers Training Corps is to provide a steady supply of well educated junior officers for careers in both the regular and reserve components of the United States Air Force. Air Force R.O.T.C. is divided into two phases, the basic course during the freshman and sophomore years, and the advanced course during the junior and senior years. Qualification for admission to the basic phase is not difficult to meet. However, admission to the advanced phase is by selection. Standards for the advanced phase are high and cadets with the better academic and leadership records who are qualified to fly, and desire to fly, are given first consideration.

University Status

The Air Force R.O.T.C. unit constitutes a regular department of instruction within the University. It is known as the Department of Air Science. Academic credits toward degrees are allowed, and participation in the Air Force R.O.T.C. in no way interferes with the pursuit of academic majors in other departments.

Academic Credits

Cadets who successfully complete the Air Science courses are granted 24 semester hours credit. This credit may be substituted for five of the courses required for the degree as follows: Two elective courses in the General College and three elective courses in the upper colleges.

Cadets are advised to consult their advisers and deans or department heads concerning appropriate substitutions.

Air Force Commissions

A commission is considered to be equivalent to a degree in military science. Cadets successfully completing the requirements for a degree and the Air Force R.O.T.C. course of instruction are commissioned Second Lieutenants in the United States Air Force Reserve. All who are commissioned will then be called to active duty for a

minimum period of three years. Veterans completing the course will not be required to serve these three years. After eighteen months of active duty, Reserve Officers may apply and compete for commissions in the Regular Air Force.

Emoluments

Advanced students (third and fourth year) are allowed a monetary allowance in lieu of rations which amounts to a total of approximately \$525.00. This is in addition to uniforms, books and training equipment, all of which are furnished the students at government expense. For attendance at summer training unit students receive in addition approximately \$85.00 plus travel expenses.

Texts and Equipment

The federal government provides all necessary texts and equipment to carry out the Air Force R.O.T.C. program.

Uniforms

Uniforms for all enrollees are furnished by the government. The uniform is similar to that prescribed for officers in the regular service and consists of both summer khaki and winter wool, including coats, shoes, and all accessories.

Uniforms must be worn at specified drill periods and may be worn at other classes and exercises.

Draft Deferment

All advanced cadets are deferred from induction. A quota for deferment from induction into the armed services of freshmen and sophomores is assigned each year to the Air Force R.O.T.C. at this University. These deferments are allotted to individual enrollees who maintain satisfactory grade averages. Such deferred students are exempt from service in the armed forces while pursuing the Air Force R.O.T.C. program and, in general, until graduation from the University.

Eligibility Requirements

BASIC COURSE

Male students in the freshman class who are physically qualified, American citizens, and not yet 24 years of age, may take the basic courses in Air Science as a requirement toward graduation. Credit may be allowed for six months or more of honorable service in the Army, Navy, Marine Corps, or Coast Guard.

ADVANCED COURSE

The advanced course consists of two years of instruction and attendance at a summer training unit which will normally come between the first and second years of the advanced course, i.e., between the junior and senior years. A student must have completed the basic course, or have had twenty-four months honorable active service in the Army, Navy, Marine Corps, Coast Guard or Air Force to be eligible for enrollment in the advanced course and must:

- a. not have reached 26 years of age at the time of initial enrollment;
- b. be physically fit as evidenced by a physical examination;
- c. successfully accomplish an Officer Qualification Test;
- d. have at least four academic semesters to complete before graduation;
- e. be pursuing a normal four-year course with the intention of securing a degree;
- f. sign an agreement (contract) in writing to complete the course;
- g. be in good academic standing with the University.

Enrollment and Continuance Requirements

The general requirements for enrollment and continuance in the Air Force R.O.T.C. are that the student be a citizen of the United States, be physically qualified as prescribed by the Department of the Air Force, execute a DD Form 98 "Loyalty Certificate for Armed Forces Personnel," be accepted by the institution as a regularly enrolled student, be under 24 years of age at the time of enrollment in the basic course, and that he successfully complete such general survey or screening tests as are given to determine eligibility for admittance to advanced courses. A student entering with advanced standing by reason of two years' military service may enroll at an age which will enable him to complete all requirements for a commission before his twenty-eighth birthday. These students (veterans) are required to enroll simultaneously with their matriculation at the University; the minimum requirement for a commission is the completion of the advanced course. Enrollees in the advanced course must agree to complete the course of instruction offered unless relieved by the Department of the Air Force.

Grading System

The status of each student in the Air Force R.O.T.C. is that of an officer candidate. Evaluation of his abilities is not based entirely on the grade he is awarded for class room performance, oral or written, but includes his attitude and ability as a leader during the practical

drill periods. A student's potential value as a leader is demonstrated to an important degree by his response to the entire scope of military instruction and military procedure as portrayed by his interest, conduct, alertness, orderliness, classroom and drill attendance, neatness, care of his uniform and equipment, and similar related matters.

The student's final grade is based on an evaluation of these attributes combined with his academic standing.

Curriculum

BASIC COURSE

AS 101. FOUNDATIONS OF AIR POWER I (2). A general survey of air power designed to provide the student with an understanding of the elements of air power and basic aeronautical science. Basic military training.

Two lecture and two laboratory hours a week, fall.

AS 102. FOUNDATIONS OF AIR POWER I (2). Purpose and provisions of the U. S. Air Force Officer Career Program. Continuation of AS 101. Basic military training.

Two lecture and two laboratory hours a week, spring.

AS 201. FOUNDATIONS OF AIR POWER II (2). The evolution of aerial warfare. Moral and spiritual foundations for leadership. Weapon system development. Cadet non-commissioned officer training.

Two lecture and two laboratory hours a week, fall.

AS 202. FOUNDATIONS OF AIR POWER II (2). Weapon system development. United States Air Force operations. Cadet non-commissioned officer training.

Two lecture and two laboratory hours a week, spring.

ADVANCED COURSE

AS 301. LEADERSHIP PRINCIPLES AND PRACTICES (4). The nature of communication. The nature and uses of information. Social and psychological determinants of Air Force leadership. Higher cadet non-commissioned officer training.

Four lecture and two laboratory hours a week, fall.

AS 302. LEADERSHIP PRINCIPLES AND PRACTICES (4). The Air Force Staff Officer. Problems of Air Force leadership. The Air Base: the legal and physical environment. Preparation for summer training. High cadet non-commissioned officer training.

Four lecture and two laboratory hours a week, spring.

AS 401. LEADERSHIP AND AIR POWER CONCEPTS (4). Career guidance; moral responsibilities of Air Force Officers, leadership and management seminar; military aviation and evolution of warfare. Cadet commissioned officer training.

Four lecture and two laboratory hours a week, fall.

AS 402. LEADERSHIP AND AIR POWER CONCEPTS (4). Military aviation and evolution of warfare; military aspects of World Political Geography, briefing for commissioned service. Cadet commissioned officer training.

Four lecture and two laboratory hours a week, spring.

Leadership Laboratory

All laboratory hours, throughout the course of instruction in both Basic and Advanced Air Science, are devoted to drill and exercise of command. This involves instructions and student participation in the following subjects: drill, military customs, courtesies, leadership, character development, *esprit de corps*, discipline, group action, morale, continuous training in command and staff functions, and other phases of officer responsibility.

Summer Training

Summer training consists of a four-week period of intensive applicatory training in general and specialized Air Force fields. This training affords the cadet the opportunity to see the Air Force in operation. It normally is attended by the advanced course student during the summer—between the two academic years of the course. Attendance at a summer training unit will be considered an integral part of the Air Force R.O.T.C. course of instruction offered the first semester of the senior year.

DEPARTMENT OF ANATOMY¹

Professors: C. W. HOOKER, W. C. GEORGE

Visiting Professors: F. R. WEEDON, A. P. HEUSNER

Associate Professors: C. D. VANCLEAVE², C. T. KAYLOR

Assistant Professors: IRA FOWLER, W. E. DOSSEL, G. R. HOLCOMB

Instructors: D. L. MITCHELL, W. S. POLLITZER

Clinical Assistant Professor: C. A. P. PHILLIPS

Courses for Undergraduates

41. INTRODUCTORY HUMAN ANATOMY (3).

A general course to meet the needs of persons preparing for careers as dental hygienists or X-ray technicians.

Two lecture and two laboratory hours a week, fall semester. Laboratory fee, \$3.00. Mr. Mitchell.

53. INTRODUCTORY HUMAN ANATOMY AND PHYSIOLOGY (Physiology 53) (5).

Offered jointly with the Department of Physiology.

A general course for students in the School of Nursing.

Three lecture and three laboratory hours a week, spring. Messrs. Holcomb and McClellan.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.

2. Absent on leave, 1958-1959.

91ab. GROSS ANATOMY (11).

For students of Physical Therapy.

Four lecture and eleven laboratory hours a week, fall and winter quarters.

Messrs. Kaylor, Holcomb, Dossell, and Miss Wood.

92. HISTOLOGY (2).

Study of the fundamental tissues and of the microscopic anatomy of the cardiovascular system, lymphoid organs, bone marrow, and skin. For students of Physical Therapy.

Four lecture and eight laboratory hours a week for six weeks, fall quarter.

Messrs. George, Heusner, and Weedon.

93. NEUROANATOMY (1½).

An introductory study of the central nervous system. For students of Physical Therapy.

A total of six lectures and eighteen laboratory hours, winter quarter. Messrs. Hooker and Mitchell.

Courses for Graduates and Advanced Undergraduates

101. CENTRAL NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE

(4¾).

Four lecture and six laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$5.00. Messrs. Hooker, Heusner, and Fowler.

102. GENERAL HISTOLOGY AND ORGANOLOGY (5½).

Four lecture and eight laboratory hours a week, fall quarter. Laboratory fee for non-medical students, \$5.00. Messrs. George, Weedon, and Heusner.

103. EMBRYOLOGY (2⅔).

Two lecture and four laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$5.00. Messrs. George, Pollitzer, and Weedon.

104. CYTOLOGY AND HISTOGENESIS (4). Prerequisites, Anatomy 102, 103.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. George.

105ab. ANATOMY (10).

Three lecture and nine laboratory hours a week, fall and winter quarters. Laboratory fee for non-dental students, \$15.00. Messrs. Hooker and Mitchell.

106. HISTOLOGY AND ORGANOLOGY (6⅔).

Five lecture and ten laboratory hours a week, fall quarter. Laboratory fee for non-dental students, \$5.00. Messrs. Fowler and Pollitzer.

107ab. GROSS ANATOMY (12⅔).

Four lecture and eleven laboratory hours a week, fall and winter quarters. Laboratory fee for non-medical students, \$15.00. Messrs. Kaylor, Holcomb, Dossell, and Phillips.

Courses for Graduates

201. COMPARATIVE HEMATOLOGY (4).

Time to be arranged. Mr. George.

207. REGIONAL ANATOMY (2 or more).

Time to be arranged. Staff.

310. RESEARCH (2 or more).

Staff.

ANTHROPOLOGY

(See Sociology and Anthropology)

ARCHAEOLOGY

(See Classics)

DEPARTMENT OF ART

Professors: JOSEPH C. SLOANE¹, KENNETH NESS, JOHN V. ALLCOTT, CLEMENS SOMMER

Associate Professor: GEORGE KACHERGIS

Assistant Professors: ROBERT HOWARD, EDGAR THORNE

Librarian and Curator of Prints: MAY DAVIS HILL

Graduate Assistants: ELMIRA HERRING, CHARLES MINOTT

Gallery Assistants: JAMES HOWARD, DWAYNE LOWDER, ROBERT SHANNON

Library Assistants: GAYLE HOSKINS, THOMAS MATTHEWS, PRISCILLA ROETZEL, IONE SHIELDS

Courses in art are for art majors and for general students in the University. Courses for art majors are planned to give the student a basic art training in studio work and art history within the liberal art program and also to lay the foundations for graduate work. Courses for general students provide an opportunity to study art for its broadening value in the liberal arts program. A new building, The William Hayes Ackland Memorial Art Center, opened in September, 1958, provides exhibition galleries, departmental library, offices, study areas, and classrooms. Other exhibitions and collections are displayed in the Morehead Building.

Courses leading to the A.B. degree with art as a major. It is suggested that a student interested in art as a major, talk with the Art Department about electing introductory art courses while in the General College. These courses are Art 41, 42, 43, 44, 46, 48, and 55; they are counted as General College electives.

Art courses taken in the junior and senior years permit concentration in art history, art education, painting, sculpture or graphic design.

For graduate programs in art history, creative work, or art education, see the Graduate School catalogue.

The Department of Art reserves the privilege of keeping examples of the work of any student.

As a part in the program of the study of art are student group trips to art galleries. The cost for these trips is \$20 to \$30.

For courses in ancient art see archaeology courses listed under the Department of Classics, page 265.

1. Effective spring semester, 1959.

Courses for Undergraduates

The following three courses are introductions to the history and interpretation of art, tracing the three arts throughout Western civilization. For general students in the University. Each course may be taken separately.

41. HISTORY AND INTERPRETATION OF ARCHITECTURE (3).

Fall and spring. Messrs. Allcott and Thorne.

42. HISTORY AND INTERPRETATION OF SCULPTURE (3).

Fall. Mr. Sommer.

43. HISTORY AND INTERPRETATION OF PAINTING (3).

Fall and spring. Messrs. Allcott, Sommer, and Thorne.

The two courses immediately following are available for the general student to give him an approach to art through work in the studio. Each course may be taken independently.

44. APPROACHES TO DRAWING AND PAINTING (3).

An introduction to the structural elements of a picture. Black, white, and color using various media. Problems in still life, landscape, and the figure.

Six studio hours a week, fall and spring. Laboratory fee, \$12.00. Mr. Kachergis.

46. APPROACHES TO SCULPTURE (3).

An introduction to three-dimensional design in materials such as clay, plaster, wood, wire. Developing basic principles of art structure.

Six studio hours a week, fall. Laboratory fee, \$12.00. Mr. Howard.

48. LETTERING, LAYOUT, AND ADVERTISING DESIGN (3).

Fundamentals of lettering. Newspaper, magazine, and advertising layout. Poster design, charts, direct mail, and other art for industry. Emphasis on studio methods. Open to students in advertising, journalism, and other fields.

Eight studio hours a week, fall. Laboratory fee, \$12.00. Mr. Ness.

49. DESIGN (3).

An introduction to studio methods in design with color, form, movement. Problems in textiles, furniture, display, etc.

Nine studio hours a week. Laboratory fee, \$12.00. Mr. Kachergis.

50. PICTORIAL CONTINUITY (3).

Visualization and planning of film strips, exhibitions, picture books, and articles. Open to students of public health, education, and other departments.

Eight studio hours a week. Laboratory fee, \$12.00. Mr. Allcott.

51. MEDIEVAL ARCHITECTURE (3).

An illustrated lecture course on the great cathedrals in France, Germany, and England during the Romanesque and Gothic periods.

Mr. Sommer.

52. RENAISSANCE ARCHITECTURE (3).

A study of architecture in Italy from the fourteenth to the sixteenth century with emphasis on the revival of classic principles and form.

Mr. Sommer.

53. MODERN ARCHITECTURE (3).

An illustrated lecture course on architecture and related design in furniture and abstract art. Field trips.

Mr. Allcott.

55. ARTS AND CRAFTS (3).

Sketching and painting; clay modeling and paper sculpture; block printing; textile designs. The planning of art projects with regard to local resources.

Nine studio hours a week, fall and spring. Laboratory fee, \$12.00. Mr. Kachergis.

61. MEDIEVAL SCULPTURE (3). Prerequisite, Art 42 or permission of the instructor.

A study of medieval sculpture during the Romanesque and Gothic periods, with emphasis on the sculptural decorations of the French cathedrals.

Mr. Sommer.

62. RENAISSANCE SCULPTURE (3). Prerequisite, Art 42 or permission of the instructor.

Beginning with the classic revival in the thirteenth century, this course will trace the Renaissance idea in sculpture from the Pisanos to Michelangelo.

Mr. Sommer.

70. AMERICAN ART (3).

From colonial times to the present.

Mr. Allcott.

71. ITALIAN RENAISSANCE PAINTING OF THE FOURTEENTH AND EARLY FIFTEENTH CENTURIES (3).

A study of early Renaissance painting and its significance for the cultural development, with emphasis on Giotto, Masaccio, and Piero della Francesca.

Fall. Mr. Sommer.

72. ITALIAN RENAISSANCE PAINTING OF THE LATE FIFTEENTH AND SIXTEENTH CENTURIES (3).

A study of high Renaissance painters with emphasis on Leonardo, Raphael and Michelangelo, and attention to their followers, the mannerists.

Spring. Mr. Thorne.

73. FIFTEENTH-CENTURY PAINTING IN NORTHERN EUROPE (3).

After brief discussion of the roots of naturalism in Flemish painting, the early masters from the Van Eycks to Brueghel will be discussed.

Spring. Mr. Sommer.

74. BAROQUE ART (3).

A study of art in western Europe during the seventeenth century. Such artists as Caravaggio, Rembrandt, Rubens, Velasquez, Poussin and Bernini will be considered.

Fall. Mr. Thorne.

75. CONTEMPORARY ART (3).

Expressionism, abstract art, surrealism, and other developments in the twentieth century. Special study of such artists as Matisse and Picasso.

Spring. Mr. Allcott.

Education 77. MATERIALS AND METHODS FOR THE TEACHING OF ART (3).

Two lecture and six studio hours a week, first half of spring semester. Mr. Kachergis.

Education 80. PRACTICE TEACHING OF ART (9).

Second half of spring semester. Mr. Kachergis.

81. COMPOSITION (3). Prerequisite, Art 44.

Representational and abstract composition. The pictorial unit from linear structure through area relationships to three-dimensional form. Emphasis on line, tone, and texture in charcoal, pencil, pen, water color, and gouache.

Nine studio hours a week, fall. Laboratory fee, \$12.00. Mr. Ness.

82. PAINTING AND PICTURE STRUCTURE (3). Prerequisite, Art 44.

Still life, figure, landscape, and abstract painting. Emphasis on structure in line, plane, and volume; tone, area, and color in water color, gouache, and oils. Projects ranging to mural size.

Nine studio hours a week, spring. Laboratory fee, \$20.00. Mr. Ness.

84. CERAMIC DESIGN (3).

Approaches to form design; the function of decorative processes such as color slips, sgraffito and glazing; firing.

Eight studio hours a week, fall. Laboratory fee, \$12.00. Mr. Howard.

85. ADVERTISING ART (3). Prerequisite, Art 48.

Figurative and abstract illustration and design of posters, book jackets, visual aids, exhibitions, and other graphic presentation work in black and white and color. Experimentation and development of personal professional methods.

(1959-1960 and alternate years.) *Eight studio hours a week, spring. Laboratory fee, \$15.00.* Mr. Ness.

86. SCULPTURE, CAST AND CARVED (3). Prerequisite, Art 46.

Casting of plaster, cement, stone; and carving in wood, stone, etc. Emphasis on the potential of solids in three-dimensional design.

Eight studio hours a week, spring. Laboratory fee, \$12.00. Mr. Howard.

Courses for Graduates and Advanced Undergraduates

105. ADVANCED PAINTING AND PAINTING PROCESSES (3). Prerequisites, Art 81, 82, or permission of the instructor.

Water color, tempera, gouache, oil, and synthetic mediums. Preparation of canvases and gesso panels. Consideration of line, tone, and form in figure, still life, and landscape in representational and abstract forms.

Nine studio hours a week, fall. Laboratory fee, \$22.50. Mr. Ness.

106. ADVANCED COMPOSITION AND PAINTING (3). Prerequisites, Art 81, 82, or permission of the instructor.

Line design, flat pattern, volume and space composition. Exploration of visual and tactile potentials in representational and non-objective picture structure. Emphasis on development of personal methods. Work in all mediums.

Nine studio hours a week, spring. Laboratory fee, \$22.50. Mr. Ness.

108. ILLUSTRATION AND PICTORIAL COMPOSITION (3). Prerequisite, permission of the instructor.

Projects in various mediums stemming from and expanding upon student's past and current work in other advanced classes.

Nine studio hours a week, by arrangement. Laboratory fee, \$15.00. Messrs. Ness, Kachergis, and Howard.

110. LIFE DRAWING (3). Prerequisite, permission of the instructor.

Work from the living model: pencil, chalk, crayon, ink. Consideration of anatomy and composition. May be taken two times for credit.

Nine studio hours a week, spring, 1959. Laboratory fee, \$15.00. Mr. Ness.

111. SCULPTURE, CONSTRUCTED AND APPLIED MATERIAL (3). Prerequisite, Art 46.

Construction with wood, metal, cardboard, etc.; and design through building directly in plaster, cement, etc. Emphasis on organization of space as form.

Eight studio hours a week, fall. Laboratory fee, \$15.00. Mr. Howard.

112. ADVANCED SCULPTURE (3). Prerequisites, Art 86 and 111.

Eight studio hours a week, spring. Laboratory fee, \$15.00. Mr. Howard.

120, 121. GRAPHIC ARTS (3 each). Prerequisite, permission of the instructor.

Laboratory fee, \$22.50. Messrs. Kachergis and Ness.

150. PICTORIAL CONTINUITY, FILM STRIPS, SLIDE TALKS, PICTURE PUBLICATIONS (3). For students of art and education. Prerequisite, six semester hours of studio work.

Eight studio hours a week. Laboratory fee, \$12.00. Mr. Allcott.

170. IMPRESSIONISM AND POST-IMPRESSIONISM (3).

This course, beginning with neoclassicism and romanticism, accents later nineteenth-century developments in France and such painters as Manet, Renoir, Cezanne, Van Gogh.

Fall. Mr. Allcott.

171. FLORENTINE PAINTING (3). Prerequisite, Art 43.

This course will deal with the development of Renaissance painting in Florence from the late thirteenth century to the beginning of the sixteenth century.

Mr. Sommer.

176. BAROQUE PAINTING IN THE NETHERLANDS (FLANDERS AND HOLLAND) (3). Prerequisite, Art 43 or permission of the instructor.

This course will center on two great masters, Rubens and Rembrandt, with stress on their different interpretations of the Baroque idea.

Mr. Sommer.

177. ORIGINS OF EUROPEAN ENGRAVING AND WOODCUT (3). Prerequisite, Art 42 or 43.

After tracing the origins and technique of engraving and woodcut, their interrelations with painting and sculpture will be discussed, with emphasis on the development in Germany.

Mr. Sommer.

Courses for Graduates

240. PAINTING² (3 or 6).

Nine or eighteen studio hours a week. Laboratory fee, \$30.00. Messrs. Kachergis and Ness.

241. SCULPTURE² (3 or 6).

Nine or eighteen studio hours a week. Laboratory fee, \$30.00. Mr. Howard.

242. GRAPHIC ARTS² (3 or 6).

Nine or eighteen studio hours a week. Laboratory fee, \$30.00. Messrs. Kachergis and Ness.

243. GRAPHIC DESIGN² (3 or 6).

Nine or eighteen studio hours a week. Laboratory fee, \$30.00. Messrs. Kachergis and Ness.

2. Each course is offered for a total of twelve semester hours.

253. MODERN ARCHITECTURE (3).

Spring. Mr. Allcott.

261. LATE GOTHIC SCULPTURE (3). Prerequisites, Art 42 and 61.

Sculpture in Germany, the Netherlands, France, and Scandinavia in the fifteenth and sixteenth centuries. The relation between sculpture and contemporaneous painting and graphic art will be discussed.

Mr. Sommer.

270. STUDIES IN MODERN PAINTING (3).

Fall. Mr. Allcott.

271. VENETIAN PAINTING (3). Prerequisites, Art 43 and 71.

The course will be concerned principally with Renaissance painting (from Bellini to Tintoretto) and will conclude with a discussion of eighteenth-century masters (Tiepolo and Guardi).

Fall, 1958. Mr. Sommer.

272. NORTHERN PAINTING (3). Prerequisites, Art 43 and 71.

After an introductory discussion of medieval painting, the course will trace the beginning of the new painting in the Netherlands and its spread over the North-European countries.

Fall, 1957. Mr. Sommer.

274. BAROQUE PAINTING IN ITALY AND FRANCE (3). Prerequisites, Art 43 and 71, or 74.

After a discussion of Mannerism, the Baroque idea will be traced through the French Classicists and the Italian Naturalists to the eighteenth-century masters, Watteau and Fragonard, Tiepolo and Guardi.

Spring, 1959. Mr. Sommer.

280. STUDIES IN NINETEENTH-CENTURY PAINTING (3). Prerequisite, Art 43, 170, or equivalent.

A study of major movements in the period from the French Revolution to the late nineteenth century.

Spring, 1959. Mr. Sloane.

301. RESEARCH (3 or 6).

A research course in a special field under the direction of a member of the department.

ASTRONOMY

(See Physics)

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY¹

Professor: D. A. MACPHERSON

Professor of Biophysics in Bacteriology: D. GORDON SHARP

Associate Professors: W. J. CROMARTIE, G. P. MANIRE

Assistant Professors: W. R. STRAUGHN, J. H. SCHWAB, JOHN K. SPITZNAGEL

Instructor: A. WIDRA

Instructors in Medical Technology (Bacteriology): LOUISE WARD, CHARLOTTE MERRITT, ARDELL PROCTOR

Instructor in Bacteriology and Pediatrics: JOHN H. ARNOLD

Research Associates: JANET J. FISCHER, J. B. TAYLOR

Graduate Assistants: SUSAN BROWNE, RAY M. CONNER, JANE CURRIE, B. S. ROBERSON

Trainee: K. O. SMITH

Requirements for Bachelor of Science in Bacteriology**FIRST YEAR**

Social Science 1-2

Hygiene 11

Physical Education 1, 2

Chemistry 11-21

English 1-2

Mathematics 7, 8 (or 15, 16)

French or German 3-4 (or 1-2 if student lacks adequate preparation)

SECOND YEAR

Zoology 41, 42

Physical Education 3, 4

Electives: One course chosen from the humanities courses in the list of sophomore electives on page 148 and two additional courses from any of the courses in this list.

English 21

French or German 21 (or 3-4 if 1-2 taken in first year)

Chemistry 43

Botany 41

THIRD YEAR

Physics 24-25

Bacteriology 51

Chemistry 61, 64

Electives, four courses²

FOURTH YEAR

Bacteriology 112

Bacteriology 132

Electives, three courses²

Two of the following, of which one must be bacteriology:

Bact. 104, 106, 115, 120

Chemistry 83

Mathematics 31, 32

Public Health 135, 232

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.

2. Four of the seven elective courses must be outside the Division of Natural Sciences.

Courses for Undergraduates

51. ELEMENTARY BACTERIOLOGY (4). Required for pharmacy students. Prerequisites, Chemistry 11-12 or 11-21.

Covers the general principles and techniques of bacteriology and the relations of these organisms to sanitation, agriculture, medicine, and industry.

Two lecture and four laboratory hours a week, spring semester. Laboratory fee, \$4.00. Mr. Schwab.

55. ELEMENTARY PATHOGENIC MICROBIOLOGY (5). Required for nursing students; other students by permission of the department. Prerequisites, Chemistry 11-12 or 11-21.

A course covering the fundamental principles of microbiology; the relation of microorganisms to disease; modes of infection; and the etiologic agents of the important infectious diseases.

Three lecture and four laboratory hours a week, fall semester. Laboratory fee, \$4.00. Mr. Widra.

Courses for Graduates and Advanced Undergraduates

101lab. PATHOGENIC BACTERIOLOGY (8 $\frac{2}{3}$). Required for medical students; other students by permission of the department. Prerequisite, Bacteriology 51 or equivalent.

A detailed study of the important bacteria, fungi, rickettsiae and viruses producing human disease including host parasite relationships and the principles of immunology. Laboratory exercises illustrate important diagnostic techniques.

Three lecture, one conference, and six laboratory hours a week, fall quarter; three lecture and six laboratory hours a week, winter quarter. Both quarters must be taken consecutively to receive credit. Laboratory fee for non-medical students, \$10.00. Messrs. MacPherson, Cromartie, Manire, Straughn, Widra, Schwab, and Spitznagel.

104. IMMUNOLOGY (4). Prerequisite, Bacteriology 101lab or 132.

Lecture and laboratory designed to study immunological principles by various *in vivo* and *in vitro* techniques. Emphasis is on quantitative immunochemistry and the chemical and physical methods used in this field.

Two lecture and four laboratory hours a week, spring semester. Laboratory fee, \$10.00. Mr. Schwab.

106. MEDICAL MYCOLOGY (4). Prerequisites, Bacteriology 101lab, or 132, or equivalent; Botany 102 is advisable.

A course covering the higher fungi pathogenic for man. A detailed study is made of each and correlated with the symptomatology, immunology, and laboratory diagnosis of the human mycotic diseases.

Two lecture and four laboratory hours a week, fall semester. Laboratory fee, \$5.00. Mr. Widra.

112. BACTERIAL PHYSIOLOGY (6). Prerequisites, Bacteriology 51, Chemistry 61, 62, or 64; a course in biochemistry is desirable.

This course is concerned with a study of the growth, metabolism, nutrition, enzyme reactions, and effects of physical and chemical agents on bacteria.

Three lecture and six laboratory hours a week, fall semester. Laboratory fee, \$6.00. Mr. Straughn.

115. **ADVANCED BACTERIOLOGY OR IMMUNOLOGY** (3 or more each term). Prerequisites, Bacteriology 101ab, or 132, and permission of the department.

A course designed to introduce the student to research methods. Minor investigative problems are conducted by the student with advice and guidance of the staff.

Hours, credit, and laboratory fee to be arranged, any term. May be continued for credit two or more semesters. Staff.

120. **VIROLOGY** (4). Prerequisites, Bacteriology 101ab or 132.

A course covering the nature of viruses and rickettsiae, with laboratory exercises emphasizing procedures for propagation and examination of these agents, including infectivity tests, serological procedures, and identification.

Two lecture and four laboratory hours a week, spring semester. Laboratory fee, \$12.00. Mr. Manire.

132. **PATHOGENIC BACTERIOLOGY** (7). Required for dental students and medical technologists. Prerequisites, Chemistry 11-12 or 11-21; and two courses selected from botany, physics, or zoology.

A course covering general bacteriological and serological techniques; common pathogenic microorganisms, with particular reference to the oral cavity; and the principles of sterilization, disinfection, chemotherapeutics, and immunity.

Five lecture and six laboratory hours a week, fall quarter; remainder of semester three lecture and six laboratory hours. Laboratory fee for non-dental students, \$10.00. Messrs. MacPherson, Manire, Cromartie, Straughn, Schwab, Widra, and Spitznagel.

151. **GENERAL BACTERIOLOGY** (4). Prerequisites, Chemistry 11-12 or 11-21, and Botany 41 or Zoology 41. Open only to majors in departments other than bacteriology.

A general science course introducing the student to the entire scope of bacteriology. Representative microorganisms are studied and fundamental principles are stressed. An individual laboratory project or literary review is required.

Two lecture and four laboratory hours a week, spring semester. Laboratory fee, \$4.00. Mr. Schwab.

Courses for Graduates

301. **RESEARCH** (5 or more each term). Prerequisite, permission of the department.

Opportunity is offered properly prepared students to undertake research in bacteriology, immunology, virology, or medical mycology.

Hours and credits to be arranged, throughout the year. Laboratory fee, to be determined. May be continued for credit two or more semesters. Staff.

DEPARTMENT OF BIOCHEMISTRY AND NUTRITION

Professors: J. L. IRVIN, J. C. ANDREWS¹

Associate Professor: C. E. ANDERSON

Assistant Professors: J. E. WILSON, M. K. BERKUT, R. H. WAGNER, B. BAGGETT, R. PENNIAL

Instructors: C. L. YARBRO, F. E. BELL, G. H. SPOONER

Research Associates: B. MILLER, C. MCCLURE, J. N. WILLIAMS

Research Assistants: D. J. HOLBROOK, J. E. SUGGS

Graduate Assistants: W. D. CURRIE, H. C. MCALLISTER, S. S. NEWTON

1. Professor, Emeritus.

Courses for Undergraduates

7. INTRODUCTION TO BIOCHEMISTRY (4). Open only to students of Dental Hygiene.

An introduction to the study of the principles and laws of chemistry as they are related to living organisms.

Three lecture hours a week, fall. Two 2-hour laboratory periods during the second half of the fall semester. Laboratory fee \$5.00. Breakage deposit required. Mr. Berkut and assistant.

8. INTRODUCTION TO BIOCHEMISTRY (4). Open only to students of Dental Hygiene.

A continuation of Course 7 with emphasis upon the elementary aspects of the chemistry of enzymes and metabolic reactions.

Three lecture hours and one 2-hour laboratory period a week, spring. Laboratory fee, \$5.00. Breakage deposit required. Mr. Berkut and assistant.

21. INTRODUCTION TO NUTRITION (2). Prerequisites, Biochemistry 7 and 8. Open only to students of Dental Hygiene.

Elementary aspects of nutrition and metabolism.

Two lecture hours a week, fall. Mr. Berkut.

Courses for Graduates and Advanced Undergraduates

101a. GENERAL BIOCHEMISTRY (3). Prerequisites, Chemistry 43, 61, and 64, or equivalent.

A class course for students of dentistry and for graduate students majoring in departments allied to Biochemistry. For such graduate students it may be counted a part of a minor in Biochemistry. In order to coincide with the quarter system of the School of Dentistry, this course is scheduled only until the Christmas holidays.

Three lecture hours a week, fall semester until the Christmas holidays. Messrs. Irvin, Anderson, Wilson, Berkut, Penniall, Bell, and Yarbrow.

101b. GENERAL BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry 101a.

The laboratory course given in conjunction with Biochemistry 101a.

Six laboratory hours a week, fall. Laboratory fee for non-dental students, \$10.00. Messrs. Wilson and Penniall.

103a. BIOCHEMISTRY (3). Prerequisites, Chemistry 43, 61, and 64, or equivalent.

A class course for students of medicine and for graduate students intending to major in Biochemistry or desiring a full year's course. Designed as preparation for Biochemistry 104, it covers the fundamental chemistry of carbohydrates, fats, proteins, vitamins, and minerals.

Three lecture hours a week, fall. Messrs. Irvin, Anderson, Wilson, Berkut, Penniall, Bell, Wagner, Baggett, and Yarbrow.

103b. BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry 103a.

The laboratory course given in conjunction with Biochemistry 103a.

Six laboratory hours a week, fall. Laboratory fee for non-medical students, \$15.00. Messrs. Irvin, Anderson, Bell, and Yarbrow.

104a. BIOCHEMISTRY (3). Prerequisite, Biochemistry 103a or equivalent.

A continuation of 103a applying the principles covered in that course to metabolism, acid-base balance, etc. After completion of the medical students' part of the course (about March 15) graduate students will be introduced to a study of biochemical preparations and methods for their analysis as well as to some elementary physico-chemical principles which find application in biochemistry.

Three lecture hours a week, spring. Messrs. Irvin, Anderson, Wilson, Berkut, Penniall, Bell, Wagner, Baggett, and Yarbrow.

104b. BIOCHEMISTRY LABORATORY (3). Corequisite, Biochemistry 104a.

The laboratory course given in conjunction with Biochemistry 104a. The laboratory work includes gastric juice, blood and urine analyses, and experiments on metabolism and enzymatic reactions.

Six laboratory hours a week, spring. Laboratory fee for non-medical students, \$15.00. Messrs. Irvin, Anderson, Bell, and Yarbrow.

191. NUTRITION (2). Prerequisite, Biochemistry 101 or equivalent.

A general survey of nutrition for students of dentistry.

Two lecture hours a week, fall. Messrs. Berkut and Spooner.

Courses for Graduates

201. ENZYMES (5). Prerequisites, Biochemistry 103 and 104 or equivalent.

A course in the classification and properties of enzymes and in the mode of action and kinetics of enzyme-catalyzed reactions.

(1959-1960 and alternate years.) *Three lecture and four laboratory hours a week, fall. Laboratory fee, \$10.00.* Messrs. Wilson, Irvin, Anderson, Penniall, Bell, and Wagner.

202. VITAMINS AND HORMONES (5). Prerequisites, Biochemistry 103 and 104 or equivalent.

The chemistry and the functions of the vitamins and the hormones in biological systems.

(1958-1959 and alternate years.) *Five lecture hours a week, spring.* Messrs. Anderson, Irvin, Wilson, Baggett, Penniall, Bell, and Berkut.

203. INTERMEDIARY METABOLISM (5). Prerequisites, Biochemistry 103 and 104 or equivalent.

The intermediary metabolism of carbohydrates, fats, and proteins.

(1958-1959 and alternate years.) *Five lecture hours a week, fall.* Messrs. Irvin, Anderson, Wilson, Berkut, Penniall, Bell, Wagner, and Baggett.

204. BIOCHEMICAL PREPARATIONS (5). Prerequisites, Biochemistry 103 and 104 or equivalent.

A laboratory course in biochemical preparations and analytical methods for testing their purity.

Ten laboratory hours a week, either semester. Laboratory fee, \$15.00. Staff.

211, 212. SEMINAR (1 each). Prerequisites, Biochemistry 103 and 104, or equivalent, and reading knowledge of German.

This course consists of reports on published research, chiefly current literature.

One hour a week throughout both semesters. Messrs. Penniall and Bell.

301, 302. RESEARCH IN BIOCHEMISTRY (6 or more each).

Equivalent of six or more hours a week throughout both semesters. Laboratory fee, \$15.00 each semester. Staff.

DEPARTMENT OF BOTANY

Professors: J. N. COUCH, H. R. TOTTEN, J. E. ADAMS, V. A. GREULACH

Associate Professor: A. E. RADFORD

Assistant Professors: C. R. BELL, W. J. KOCH

Visiting Assistant Professor: W. C. DENISON

Instructor: MAX HOMMERSAND¹

Head Curator of the Herbarium: A. E. RADFORD

Curator of the Herbarium: HARRY E. AHLES

Research Associate: ANN FOSTER BLEVINS

International Nickel Fellow: J. G. HAESLOOP

Coker Fellow: C. J. UMPHLETT

Teaching Fellow: D. B. JEFFREYS

Part-time Instructor: R. P. ASHWORTH

Graduate Assistants: JIM HORTON, ALICE E. HAMMOND, J. T. MULLINS, R. B. BOWMER, T. E. REGISTER, S. E. STEWART, P. ANN WHITLOCK, MARGARET M. HOLLAND, R. F. BRITT, C. JOHN BURK, W. K. KIM

For the A.B. with major in botany the following courses are required: Botany 41 (or 1 with grade of B or better), 42, 43, and three additional courses in botany, one of which may be Bacteriology 51. Also required are Zoology 41, 42; one year of chemistry (preferably more); and either Physics 24-25 or Geology 41-42 (preferably both). Six courses in departments outside of the Division of Natural Sciences are required.

Those students who plan to teach in public high schools should read the instructions under the School of Education section of the catalogue, page 174.

Courses for Undergraduates

1. PLANT BIOLOGY (4). Freshman or sophomore elective. This may be taken to satisfy partially the requirement for natural science in the General College but should not be taken by anyone intending to major in natural science. However, with the permission of the department, Plant Biology with a grade of A or B may be substituted for Botany 41 as a prerequisite, or as one of the six courses required for an undergraduate major.

A study of plants as living organisms, with emphasis on their life processes, heredity, relationship to environment, and biological and economic importance. Fundamental biological principles and scientific methods are illustrated and stressed.

Three lecture and two laboratory hours a week, fall or spring. Five lecture periods and six laboratory hours a week, either term of summer session. Laboratory fee, \$2.00. Messrs. Adams, Greulach, Koch, Denison, Hommersand, Ashworth; assistants.

41. GENERAL BOTANY I: PRINCIPLES OF BOTANY (4). To be taken instead of Botany 1 by students intending to major in the natural sciences. Credit will not be given for both of these courses.

An introduction to the structure, physiology, genetics, and classification of plants.

Three lecture and three laboratory or field hours a week either semester, with a special section in the spring for pharmacy students. Five lecture periods and nine laboratory hours, either term of the summer session. Laboratory fee, \$4.00. Messrs. Totten, Radford, Bell; assistants.

1. Absent on leave, spring semester, 1959.

42. GENERAL BOTANY II: THE PLANT KINGDOM (4). Prerequisite, Botany 41 or 1 (see above).

A survey of the plant kingdom with emphasis on the structure, reproduction, and classification of selected types. Laboratory and field studies of local non-vascular and vascular plants.

Two lecture and four laboratory or field hours a week, fall. Laboratory fee, \$4.00. Mr. Koch.

43. LOCAL FLORA (4). Prerequisite, Botany 41 or 1.

A study of the structure and classification of vascular plants, with primary emphasis on field and laboratory studies of the local flora.

Two lecture and six laboratory hours a week, spring. Laboratory fee, \$4.00. Mr. Radford or Mr. Bell.

45. PHARMACOGNOSY (5). Prerequisite, Botany 41. Required of second-year students in the School of Pharmacy and open to others only by special permission of the Department of Botany.

The history, production, and evaluation of crude drugs of vegetable and animal origin; microscopical study and identification of powdered drugs, their common adulterants; and some food products.

Two lecture and six laboratory hours a week, fall. Laboratory fee, \$6.00. Mr. Totten; assistants.

Courses for Graduates and Advanced Undergraduates

101. A COMPARATIVE SURVEY OF THE NON-VASCULAR PLANTS (4). Prerequisite, Botany 41 (or 1), and 42.

An introduction to the structure, physiology, and life histories of bacteria (including the actinomycetes), fungi, algae, lichens, mosses, and liverworts.

Two lecture and four laboratory hours a week, spring. Laboratory fee, \$4.00. Mr. Koch.

102. COMPARATIVE MORPHOLOGY OF VASCULAR PLANTS (4). Prerequisites, Botany 41 (or 1), 42 (or 101).

Detailed study of selected vascular plants to portray the evolutionary development of the group.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$4.00. Mr. Adams.

103. TAXONOMY OF FLOWERING PLANTS (4). Prerequisites, Botany 41, 43 or equivalent.

The collection, identification and preparation of herbarium specimens and structural studies of the principal families of flowering plants.

Two lecture and four laboratory hours a week, spring; three lecture periods and nine laboratory hours a week, first term of summer session. Laboratory fee, \$4.00. Mr. Totten or Mr. Radford.

104. INTRODUCTORY PLANT PHYSIOLOGY (4). Prerequisites, Botany 41 (or 1) and 42, General Chemistry.

A general introductory study of the life processes of plants, including water relations, mineral metabolism, photosynthesis, foods, digestion, respiration, assimilation, and growth.

Three lecture and three laboratory hours a week, fall. Laboratory fee, \$6.00. Mr. Greulich.

105. PLANT ANATOMY (4). Prerequisites, Botany 41, 42 (or 101), 102.

Introduction to the developmental and comparative anatomy of vascular plants. Practice in methods of anatomical microtechnique.

(1958-1959 and alternate years.) *Two lecture and four laboratory hours a week, spring. Laboratory fee, \$6.00.* Mr. Adams.

106. CYTOLOGY (4). Prerequisites, Botany 41, 42; chemistry and genetics recommended.

The study of the structure and function of plant and animal cells.

(1958-1959 and alternate years.) *Two lecture and four laboratory hours a week, fall. Laboratory fee, \$4.00.* Mr. Bell.

107. PLANT ECOLOGY (4). Prerequisite, Botany 103.

Study of ecological principles and problems primarily in relation to vegetation and habitats of North Carolina.

(1958-1959 and alternate years.) *Two lecture and six laboratory hours a week, fall. Laboratory fee, \$8.00.* Mr. Radford.

108. PLANT BIOLOGY FOR SECONDARY SCHOOL TEACHERS (4). This course is open only to high school science teachers and seniors in the School of Education. It can be used as a substitute for Botany 41 and 42 as a prerequisite for Botany 103, 109, and 155.

A study of fundamental botanical facts and principles, especially those important as a background for high school biology teachers, with particular emphasis on recent developments. The laboratory work stresses experiments, demonstrations and projects useful in high school biology.

Five lecture periods and six laboratory hours a week, first term, summer session. Three lecture periods and three laboratory hours, fall, 1958; spring, 1960. Laboratory fee, \$4.00. Mr. Greulich or Mr. Radford.

109. FIELD BOTANY (4). Prerequisite, Botany 42 or 43, or 108, or equivalent.

A review of the plant kingdom with emphasis on where the plants grow, their collection; preservation; and use of manuals in their identification. Strongly recommended for teachers of biology.

Two lecture periods and four laboratory hours, spring and fall, 1959. Three lecture periods and eleven laboratory or field hours a week, first term of summer session, 1960. Laboratory fee, \$4.00. Mr. Totten.

114. ALGAE (4). Prerequisite, Botany 42.

A survey of the algae, including both fresh-water and marine groups.

(1959-1960 and alternate years.) *Two lecture and four laboratory hours a week, spring. Laboratory fee, \$4.00.* Mr. Hommersand.

115. SURVEY OF THE FUNGI (4). Prerequisite, Botany 42.

A survey of the fungal groups, including the true fungi, myxomycetes, and lichens.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$4.00. Mr. Couch.

151. ADVANCED TAXONOMY (4). Prerequisite, Botany 103.

Field and laboratory studies of the fall flora and structural studies of selected families.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$4.00. Mr. Radford.

155. DENDROLOGY (4). Prerequisite, Botany 43 or equivalent.

A taxonomic study of the native and introduced woody plants, based largely on leaf, bark, and fruit characteristics.

Three lecture periods and eleven laboratory or field hours a week, second term of the summer session, 1959. Laboratory fee, \$4.00. Mr. Totten.

Courses for Graduates

211, 212. ADVANCED MYCOLOGY: PHYCOMYCETES, ASCOMYCETES, BASIDIOMYCETES, AND FUNGI IMPERFECTI (5 each). Prerequisite, Botany 42 or 101.

These courses are intended for students who wish to specialize in mycology, plant pathology, or microbiology. Class work consists of lectures and student reports on the literature; laboratory work consists of the collection and identification of fungi, study of their structure and development, techniques for isolation and pure culture of fungi. Botany 211, Myxomycetes, Phycomycetes, and Ascomycetes; Botany 212, Basidiomycetes and Fungi Imperfecti.

Two lecture and six laboratory hours a week, 212, fall; 211, spring. Laboratory fee, \$4.00 each semester. Mr. Couch.

221. ADVANCED PLANT PHYSIOLOGY I (5). Prerequisite, Botany 104 or equivalent; general physics advisable.

An advanced study of plant colloids; osmosis, permeability, water absorption and translocation; soil water relations; transpiration; and the absorption, translocation, and utilization of mineral salts.

(1958-1959 and alternate years.) *Three lecture and four laboratory hours a week, fall. Laboratory fee, \$6.00. Mr. Greulich.*

222. ADVANCED PLANT PHYSIOLOGY II (5). Prerequisites, Botany 104 or equivalent and organic chemistry.

An advanced study of plant metabolism and growth, including enzymes; photosynthesis; respiration; carbohydrate, fat, and nitrogen metabolism; plant hormones; growth dynamics and correlations; and the effects of environmental factors on growth.

(1958-1959 and alternate years.) *Three lecture and four laboratory hours a week, spring. Laboratory fee, \$6.00. Mr. Greulich.*

224. PHYSIOLOGY OF THE FUNGI (2). Prerequisites, Botany 104 and 211 or 212.

A study of the life process of fungi with particular emphasis on those aspects which differ most from the physiology of green plants. Nutrition, respiration and fermentation, synthetic processes, and the effects of environmental factors on growth and sporulation are stressed.

(1958-1959 and alternate years.) *Two lecture and report hours a week, spring. Mr. Greulich.*

251. PHYLOGENY AND CLASSIFICATION OF FLOWERING PLANTS (3). Prerequisite, Botany 103.

Comparative study of modern systems of classification based upon morphological and phylogenetic considerations.

(1959-1960 and alternate years.) *Three lecture or report hours a week, spring. Mr. Adams.*

252. VARIATION AND EVOLUTION IN PLANTS (3). Prerequisites, Botany 106 or one course in genetics, and permission of the instructor.

Lectures concerning the causes and patterns of variation in plants, of natural methods whereby this variation is perpetuated, and the effect of this variation on the geographic, taxonomic and economic aspects of the plants studied.

(1959-1960 and alternate years.) *Three lecture hours a week, spring. Mr. Bell.*

256. PLANT GEOGRAPHY (2). Prerequisite, Botany 103.

Discussion of the principles and problems of the geographic distribution of plants.

(1958-1959 and alternate years.) *Two lecture or report hours a week, fall. Mr. Adams.*

261. BIOSYSTEMATICS (4). Prerequisite, permission of the instructor; Botany 106 (or 252) and 251 recommended.

A consideration of recent developments in plant taxonomy, with particular emphasis on the interrelationships between cytology, morphology, ecology, physiology and genetics as they relate to the solving of particular taxonomic problems.

(1958-1959 and alternate years.) *One lecture and six laboratory or field work hours a week, spring. Laboratory fee, \$4.00.* Mr. Bell.

262. CYTOGENETICS (2). Prerequisites, cytology and genetics, or permission of the instructor.

The application of cytological and genetic techniques to problems in plant breeding, growth, and taxonomy.

(1959-1960 and alternate years.) *Two lecture or report hours a week, fall.* Mr. Bell.

The following courses are designed for candidates for advanced degrees. The work of each of these courses may be continued for two or more semesters under the same course number.

Each course requires six or more laboratory and conference hours a week, fall and spring. Three or more credits are given. Laboratory fee, \$4.00 each semester.

310. RESEARCH IN FUNGI.

Mr. Couch.

316. RESEARCH IN ALGAE.

Mr. Hommersand.

320. RESEARCH IN PLANT PHYSIOLOGY.

Mr. Greulich.

330. RESEARCH IN THE TAXONOMY OF VASCULAR PLANTS.

Messrs. Totten, Adams, Radford, or Bell.

350. RESEARCH IN THE MORPHOLOGY OF VASCULAR PLANTS.

Mr. Adams.

360. RESEARCH IN CYTOLOGY AND CYTOGENETICS.

Mr. Bell.

380. MASTER'S THESIS.

Staff.

390. DOCTORAL DISSERTATION.

Staff.

SCHOOL OF BUSINESS ADMINISTRATION

Professors: M. W. LEE, E. E. PEACOCK, G. T. SCHWENNING, R. J. M. HOBBS, R. P. CALHOON, C. H. MCGREGOR, J. E. DYKSTRA, C. S. LOGSDON, W. J. GRAHAM, C. A. KIRKPATRICK, J. C. D. BLAINE, G. A. BARRETT, C. C. CARTER, A. M. WHITEHILL, JR., D. C. ADKINS

Associate Professors: C. S. GEORGE, W. A. TERRILL, C. H. KREPS, JR., H. Q. LANGENDERFER, J. S. FLOYD, JR.

Assistant Professors: G. S. FYFE, I. N. REYNOLDS, J. B. FLYNN

Instructor: W. P. WINDHAM

Lecturers: F. J. SCHWENTKER, A. B. COHAN, A. G. SADLER, R. I. LEVIN, A. G. CROTTY
Research Assistant: C. F. POSTON

Part-time Instructors: C. V. FISHER, F. PARKER, R. J. PORTER, W. ROSE, R. J. TUGGLE,
D. A. FINLEY, H. S. GLOVER, M. B. JONES, J. E. THORNTON

SCHOOL OF BUSINESS ADMINISTRATION

The several curricula which lead to the degree of Bachelor of Science in Business Administration are described in detail in a separate bulletin of the School of Business Administration, which may be obtained by addressing a request to the Dean. Students in other schools and colleges wishing to take Business Administration courses for credit should consult their deans.

NOTE: Economics 31-32, or equivalent, is prerequisite to all other courses in Economics and all courses in Business Administration, except as otherwise indicated. Economics 61 with a grade of C or better may, under certain circumstances, be substituted for Economics 31-32.

Courses for Undergraduates

71. ACCOUNTING PRINCIPLES I (3). Prerequisite (or corequisite), Economics 31-32 or equivalent.

Fundamental accounting principles applied to operations of single proprietorships, partnerships, and corporations.

Fall and spring. Laboratory fee, 50c. Staff.

72. ACCOUNTING PRINCIPLES II (3). Prerequisite, Business Administration 71 or equivalent.

Intensive study of theory and types of internal and external usefulness in connection with valuation of assets and liabilities and determination of income; analysis of financial statements.

Fall and spring. Staff.

91. BUSINESS LAW (3).

The purpose of this course is to give the student an understanding of the main principles of law which govern the daily conduct of business. Contracts and agency are given special attention.

Fall and spring. Messrs. Hobbs and Carter.

Courses for Graduates and Advanced Undergraduates

110. REAL ESTATE (3).

An introduction to: the economic utilization of land; the relation of real estate to business; the real estate market; factors influencing values; legal relationships; financing; the impact of government.

Fall and spring. Mr. Flynn.

120. GENERAL INSURANCE (3).

Fundamental principles of insurance; their application to life, property, casualty, and social insurance.

Fall and spring. Messrs. Schwentker, C. V. Fisher, and Thornton.

121. LIFE INSURANCE (3).

Basic life insurance principles and practices; includes functions, policy types, premium and reserve calculation; settlement options; risk selection; individual and group coverages; company organization and management.

Fall. Mr. Schwentker.

122. PROPERTY INSURANCE (3).

A study of the more important types of property coverages, including fire, marine, and inland marine insurance. Includes hazards, policy types, rate determination, company organization, state regulations, and legal background.

Fall and spring. Mr. Schwentker.

123. CASUALTY INSURANCE (3).

The social, economic, and legal bases for workmen's compensation, automobile, accident and health, burglary, fidelity, surety, and other casualty insurances. Includes rate-making, contract analysis, types of companies, and state regulation.

Fall. Mr. Schwentker.

124. ADVANCED LIFE INSURANCE (3). Prerequisite, Business Administration 121 or equivalent.

An introduction to the specialized life insurance services, such as administration of policy proceeds, the integration of life and property estates, and business life insurance.

Spring. Mr. Schwentker.

125. ADVANCED PROPERTY AND CASUALTY INSURANCE (3). Prerequisites, Business Administration 122 and 123 or equivalents.

Integration of property and casualty insurance; includes situation analysis, agent-client-company relationships, the philosophy and development of insurance trade associations and governmental regulation.

Spring. Mr. Schwentker.

130. PRINCIPLES OF INDUSTRIAL MANAGEMENT (3).

A survey of the basic principles and control practices of modern scientific management, as applied in industry.

Fall and spring. Messrs. Dykstra, George, and Levin.

131. INDUSTRIAL MANAGEMENT: THEORIES AND PRACTICES (3). Prerequisite, Business Administration 130 or equivalent.

A case analysis course. Actual cases from industry are analyzed in the light of scientific management principles, and sound solutions are sought. Practice in writing problem-solution reports is an important part of the course.

Fall and spring. Messrs. Dykstra and George.

133. TIME AND MOTION STUDY (3). Prerequisite, Business Administration 130 or equivalent. Open to seniors and graduate students only.

The principles and techniques of modern motion and time study.

Laboratory, six hours; fall and spring. Laboratory fee, \$6.00. Messrs. Dykstra, George, and Levin.

134. PREDETERMINED TIME STUDY (3). Prerequisites, Business Administration 130, or equivalent, and senior standing.

Predetermined time study principles and practice; recognition and definition of fundamental work elements and their keying to standard data; training in the application of predetermined time study techniques.

Recitation, two hours; laboratory, two hours; spring. Laboratory fee, \$3.00. Mr. Dykstra.

135. QUALITY CONTROL BY STATISTICAL METHODS (Economics 173) (3). Prerequisite, Economics 70 or equivalent.

Control charts. Historical analysis. Process control: variables; defects; defectives. Operating characteristic. Tolerance limits. Lot acceptance: single; double; multiple; sequential. Producer's and consumer's risk. AOQL. Cost functions.

Recitation, three hours; laboratory problems; spring. Laboratory fee, \$3.00. Mr. Cowden.

137. INDUSTRIAL MANAGEMENT CONTROLS (3). Prerequisite, Business Administration 130 or equivalent.

A study of the principles and procedures used in the control of industrial enterprises: production planning and control, cost control, quality control, budgetary control, and management control.

Fall. Mr. George.

139. INDUSTRIAL PURCHASING (3). Prerequisite, Business Administration 130, or 160, or equivalent.

The purchasing function: its organization and major problems; includes organization, procedures and policies, price forecasting, legal aspects; traffic and claims, stores control, budgeting, and measurements of performance.

Fall. Mr. Logsdon.

141. TRAFFIC MANAGEMENT (3).

This course deals with the nature and functions of the industrial traffic department and the rights and duties of shippers as well as the carriers' traffic operations and their duties and rights as carriers.

Fall and spring. Messrs. Blaine and F. Parker.

142. TRAFFIC PROBLEMS (3). Prerequisite, Business Administration 141 or equivalent.

A course designed to teach the students to analyze traffic situations which they are likely to encounter under actual conditions through the use of selected cases and problems in industrial traffic management and carrier traffic operations.

Spring. Mr. Blaine.

150. PERSONNEL RELATIONS (3).

Interpersonal aspects of business with emphasis on the human phase of organization, personnel efficiency, handling personnel situations, developing work teams, labor relations, and administration of other matters affecting the personnel of an organization.

Fall and spring. Messrs. Schwenning, Calhoon, Whitehill, Cohan, and Jones.

153. LABORATORY ANALYSIS IN PERSONNEL PSYCHOLOGY (Psychology 181) (3). Advised prerequisite, Psychology 135, or Business Administration 150, or equivalent, and a course in statistics.

A laboratory course in personnel techniques as applied practically to job analysis, constructing application blanks, rating scales, etc.

One lecture and four laboratory hours, spring. Laboratory fee, \$3.00. Miss Adkins.

155. WAGE AND SALARY ADMINISTRATION (3). Prerequisite, Business Administration 150 or equivalent.

Wage and salary level determination, wage and salary structures, job evaluation, wage incentives, individual wage determination, fringe wages, controls.

Spring. Messrs. Calhoon, Cohan, and Whitehill.

158. PERSONNEL DEVELOPMENT (3). Prerequisite, Business Administration 150 or equivalent.

Analysis of problems in developing skills and attitudes of employees and managers. Studies methods used in development: communications, training, evaluating performance. Considers administration in terms of both individual and group development.

Recitation, two hours; laboratory, two hours; fall. Laboratory fee, \$3.00. Messrs. Calhoon and Whitehill.

159. PERSONNEL SELECTION AND COUNSELING (3). Prerequisite, Business Administration 150 or equivalent.

Study of factors in effective selection and techniques for counseling employees. Major emphasis on job analysis, directive and non-directive interviewing, and other selection techniques.

Recitation, two hours; laboratory, two hours; spring. Laboratory fee, \$3.00.
Mr. Calhoun.

160. PRINCIPLES OF MARKETING (3).

Marketing organization and methods with emphasis on the social and economic aspects of distribution. Consumer problems, marketing functions and institutions, marketing methods and policies.

Fall and spring. Messrs. Logsdon, Kirkpatrick, and Fyfe.

161. ADVERTISING (3). Prerequisite, Business Administration 160 or equivalent.

The organization and functions of advertising from the point of view of the business executive. Topics include economic and social aspects; types of advertising and purposes; media types, selection and evaluation; advertising research.

Fall and spring. Mr. Kirkpatrick.

162. SALESMANSHIP AND SALES PROMOTION (3). Prerequisite, Business Administration 160 or equivalent.

Principles of effective selling; professional aspects of personal selling; qualifications and obligations of salesmen; program planning and administration; interdepartmental coordination of promotion efforts.

Fall. Mr. Kirkpatrick.

163. ADVERTISING PROBLEMS (3). Prerequisite, Business Administration 161 or graduate standing.

An analysis of advertising problems confronting management. Case studies emphasize the fitting of advertising into the marketing program, its control and coordination, and the evaluation of advertising results.

Spring. Mr. Kirkpatrick.

164. WHOLESALING (3). Prerequisite, Business Administration 160 or equivalent.

A study of the development of the wholesale structure and of such wholesale management problems as locations, buying, stock control, advertising, selling, order handling, traffic management, credit, and expense.

Fall. Messrs. Logsdon and Fyfe.

165. RETAILING (3). Prerequisite, Business Administration 160 or equivalent.

A study of the place of retailing in the economy. Topics include development of the present retail structure, functions performed, principles governing effective operations, modern store policies and practices, and managerial problems posed by social and economic trends.

Fall and spring. Messrs. McGregor and Fyfe.

166. RETAIL MANAGEMENT PROBLEMS (3). Prerequisite, Business Administration 165 or graduate standing.

Analysis of the more important planning and control problems of retail managements, with emphasis placed upon budgeting, cost control, operational analysis and evaluation, and retail research.

(Not offered in 1958-1959.) *Spring.* Mr. McGregor.

167. SALES MANAGEMENT (3). Prerequisite, Business Administration 160 or equivalent.

The planning, organization, and control of sales operations. Emphasis is placed upon the sales manager's functions and problems in manufacturing, wholesaling, and service establishments.

Fall and spring. Messrs. Logsdon and Fyfe.

168. SALES AND MARKET ANALYSIS (3). Prerequisite, Business Administration 160 or equivalent.

A study of procedures and problems in the analysis and evaluation of market areas, distribution channels, and marketing methods. Emphasis is placed on commercial research in the determination of sound marketing policies.

Fall and spring. Mr. McGregor.

169. MARKETING POLICIES (3). Prerequisites, Business Administration 160, or equivalent, and senior standing.

A problems method course dealing with specialized marketing functions and policies; includes product and line, brands, channels of distribution, prices and pricing, sales promotion, and operating diagnosis and control.

Fall and spring. Messrs. Logsdon and Fyfe.

170. ACCOUNTING PRINCIPLES III (3). Prerequisite, Business Administration 72 or equivalent.

Application of accounting principles to income determination and valuation. Includes statement classification and analysis, correction of profit of prior years, and a review of accounting records and closing procedures.

Fall and spring. Messrs. Sadler, Reynolds, and Terrill.

171. ACCOUNTING FOR BRANCHES, COMBINATIONS, AND AFFILIATED COMPANIES (2). Prerequisite, Business Administration 170 or equivalent.

Home office and branch accounting, preparation and interpretation of consolidated balance sheet and profit and loss statements, mergers and consolidations, special problems in combining divisional operating statements.

Fall and spring. Messrs. Terrill and Sadler.

172. ADVANCED ACCOUNTING (2). Prerequisite, Business Administration 170 or equivalent.

A study of statement of affairs, receiver's accounts, realization and liquidation reports, partnership changes and dissolution, accounting applications of compound interest and annuities, estates, and trusts.

Fall and spring. Messrs. Reynolds, Terrill, and Sadler.

173. COST ACCOUNTING (3). Prerequisite, Business Administration 72 or equivalent.

A thorough study of cost systems, including job order, process, and standard costs. Control of costs is stressed. Laboratory work covers job order and process cost sets.

Recitation, two hours; laboratory, two hours; fall and spring. Laboratory fee, \$3.00. Messrs. Peacock and Terrill.

174. ACCOUNTING THEORY (3). Prerequisite, senior standing.

Critical examination and analysis of accounting principles with emphasis on determination of cost and income, valuation and statement presentation. Study of current problems presented in accounting literature and business cases.

Spring. Mr. Graham.

175. AUDITING (3). Prerequisite, Business Administration 72 or equivalent.

A course in auditing theory and practice. The auditing procedures established by the American Institute of Accountants are covered and the duties of both junior and senior accountants are studied.

Recitation, two hours; laboratory, two hours; fall and spring. Laboratory fee, \$3.00. Mr. Peacock.

177a. FEDERAL AND STATE INCOME TAXATION FOR INDIVIDUALS

(3). Prerequisite, senior standing.

Federal and state income tax laws and their application to tax situations for individuals. Lectures supplemented by laboratory problems and exercises.

Fall and spring. Mr. Langenderfer.

177b. FEDERAL AND STATE TAXATION (3). Prerequisite, Business Administration 177a or equivalent.

Federal and state income tax laws, their application to tax situations for partnerships and corporations, corporate reorganizations, personal holding companies, estates, trusts; estate, gift, and inheritance taxes. Lectures, laboratory problems, and exercises.

Spring. Mr. Sadler.

178. CERTIFIED PUBLIC ACCOUNTING PROBLEMS (3). Prerequisite, major in accounting and permission of the instructor.

A review of the general and specialized accounting problems which constitute the subject matter of C.P.A. examinations.

Spring. Mr. Langenderfer.

179. GOVERNMENTAL ACCOUNTING (3). Prerequisite, Business Administration 72 or equivalent.

Application and procedures for fund accounting in local governments, including counties, townships, cities, villages, school and special districts. Special consideration given to drafting of work sheet layouts.

Fall and spring. Mr. Sadler.

180. BUSINESS FINANCE (3). Prerequisite, Business Administration 71 or equivalent.

A study of the principles and practices of business financing with particular attention given to the problems of corporations. The methods of raising permanent capital, the nature of the securities markets, and the problems of current financing are examined.

Fall and spring. Messrs. Floyd, Flynn, Porter, and Finley.

182. PROBLEMS IN BUSINESS FINANCE (3). Prerequisite, Business Administration 180.

An analysis of selected problems of business finance. Attention is devoted to the planning and administration of financial policies incidental to promotion, expansion, combination, and bankruptcy.

Fall. Messrs. Floyd and Cohan.

184. COMMERCIAL BANKING: MANAGEMENT OF LENDING (3). Prerequisite, Economics 81 or equivalent.

Case studies and selected readings covering the organization and administration of commercial bank lending; short-term and term lending to business; consumer and mortgage lending; and lending to farmers.

Fall. Mr. Kreps.

185. COMMERCIAL BANKING: MONEY MANAGEMENT AND OPERATING PROBLEMS (3). Prerequisite, Economics 81 or equivalent.

Bank reserve management and investment policies; problems of competition, capital and earnings, and other bank operating problems; all illustrated by case studies of individual banks.

Spring. Mr. Kreps.

186. INVESTMENTS (3). Prerequisite, Business Administration 180 or equivalent.

A survey of investment principles and practice. Emphasis is given to the problems of security analysis and portfolio management with special attention to the investment problems of the individual investor.

Fall and spring. Messrs. Floyd and Cohan.

190. BUSINESS ECONOMICS (3). Prerequisites, Economics 70, or equivalent, and senior standing.

This course utilizes economic analysis as a basis for decision-making and policy formulation in the business firm.

Fall and spring. Messrs. Winslow, Pfouts, and Cohan.

193. INDUSTRIES OF THE UNITED STATES (3). Prerequisite, junior standing.

An analysis of the structure, development, and competitive status of selected industries. Emphasis is placed on the technology of these industries and the principal problems of their management.

(Not offered in 1958-1959.) *Spring.* Mr. Mouzon.

194. CREDIT TRANSACTIONS AND SALES (3). Prerequisite, Business Administration 91 or equivalent.

The law of negotiable instruments and the legal principles governing sales, including conditional sales and security transactions, are covered.

Fall and spring. Mr. Hobbs.

195. LAW OF TRADE (3). Prerequisite, Business Administration 91 or equivalent.

This course considers the law affecting the conduct of trade and industry: nature and scope of competition at common law, and legislative attempts to fix the boundaries of permissible competition.

Fall and spring. Mr. Barrett.

196. HUMAN RELATIONS IN BUSINESS (3).

Case studies and supplementary readings are used to develop skill in (1) recognition and analysis of problems in human interaction, and (2) formulation and communication of positive plans for responsible administrative action.

Spring. Messrs. Whitehill and Cohan.

197. FUNDAMENTALS OF MANAGERIAL ORGANIZATION (3). Prerequisite, senior standing.

A detailed analysis of the basic problem of organization, including its basis in management, as well as the development, attributes, structure, staffing, directing, and controlling of an organization.

Spring. Mr. George.

198. SURVEY OF OPERATIONS RESEARCH (3). Prerequisite, senior standing.

The team approach to research problems of interest to management. The application of operations research methods to scheduling problems in inventory and production control. Problems of replacement and location of fixed assets.

(Not offered in 1958-1959.) *Fall.* Mr. Pfouts.

Courses for Graduates

203. LINEAR PROGRAMMING (Economics 203) (3). Prerequisite, Economics 200 and 201 or equivalent.

Topics in linear programming and game theory. Dynamic and static aspects of linear models.

(1960-1961 and alternate years.) *Fall*. Mr. Ashby.

207. SCIENTIFIC MANAGEMENT (3).

The functions and theories of management in contemporary business. The management movement, scientific method in management, laws of organization, and types and theories of management organization.

Fall and spring. Mr. Schwenning.

231. PROBLEMS IN INDUSTRIAL MANAGEMENT POLICIES (3). Prerequisite, Business Administration 130 or equivalent.

An intensive coverage of the industrial management area of business administration by individual study, case analysis and reports. The development of sound manufacturing policies, through critical analysis, is the course objective.

Fall. Messrs. Dykstra and George.

241. TRAFFIC ADMINISTRATION (3).

A study of the administrative policies of a traffic department as an integral part of the overall administrative policies of an organization.

(1959-1960 and alternate years.) *Spring*. Mr. Blaine.

250. PERSONNEL ADMINISTRATION (3). Prerequisite, Business Administration 150 or equivalent.

A study of the factors contributing to the building and maintenance of an effective work force. Analysis of problems by case study.

Spring. Messrs. Calhoon and Whitehill.

260. MARKETING MANAGEMENT (3). Prerequisite, Business Administration 160 or equivalent.

A course in the planning and control of marketing operations. Includes forecasting and planning, modern control techniques and practices, and appraisal of distribution costs and their control.

Fall and spring. Mr. McGregor.

268. MARKETING RESEARCH (3). Prerequisites, Business Administration 160 and Economics 70 or equivalents.

A course covering research methodology with emphasis on the application of scientific techniques to marketing problems. Critical evaluation of information sources, research procedures, and utilization of research findings.

(Not offered in 1958-1959.) *Spring*. Mr. McGregor.

273. ADVANCED COST ACCOUNTING (3). Prerequisite, Business Administration 173 or equivalent.

Process cost accounting procedures, budgetary control and cost accounting, standard cost accounting, and managerial analyses and reports.

Spring. Mr. Terrill.

274. ACCOUNTING SYSTEMS (3). Prerequisites, Business Administration 172 and 173, or equivalents.

The design and installation of accounting systems for textile and furniture manufacturing firms, banks, and public utilities.

(Not offered in 1958-1959.) *Recitation, two hours; laboratory, two hours; spring. Laboratory fee, \$3.00*. Mr. Sadler.

276. ADVANCED ACCOUNTING THEORY (3).

Critical examination of accounting concepts and standards. Emphasis on income determination, particularly controversial issues. Studies of current problems and contemporary development reflected in research bulletins, monographs, journals, textbooks, and reports.

(Not offered in 1958-1959.) *Spring*. Mr. Graham.

280. FINANCIAL POLICIES (3). Prerequisite, Business Administration 180 or equivalent.

An analysis of the practices which business enterprises use to solve given financial problems. Cases selected from actual experience provide the basis for a critical evaluation of managerial decisions which create sound financial policy.

Spring. Mr. Floyd.

285. BANKING POLICIES AND PROBLEMS (3). Prerequisite, Economics 81 or equivalent.

The management of financial institutions, especially commercial banks. Case studies and selected readings in such areas as lending policy, investment policy, reserve management, bank operations, and competition among financial institutions.

Fall. Mr. Kreps.

290. MANAGEMENT ECONOMICS (3).

Concepts and methods of economic analysis are applied to problems of policy and operations facing the business executive. Emphasis is placed on conditions outside the business.

Fall and spring. Messrs. Winslow and Pfouts.

291. MANAGERIAL INTERPRETATION OF ACCOUNTING INFORMATION (3).

An analysis of management's use of cost and other quantitative data in managerial planning and control.

Fall. Mr. Graham.

296. HUMAN RELATIONS IN ADMINISTRATION (3).

The objective of this course is to develop attitudes and skills which will contribute to maximum effectiveness in the human aspects of administration. Case studies, supplemented by selected readings, stimulate systematic, rigorous analysis and decision-making ability.

Fall and spring. Messrs. Calhoon and Whitehill.

297. BUSINESS RESEARCH AND REPORT WRITING (3).

Analytical skills and reasoning in business situations are developed through the preparation of a variety of reports; knowledge of sources of information and their effective use is stressed.

Fall and spring. Messrs. Cohan and Whitehill.

299. BUSINESS POLICY (3).

Integrating and building upon the business administration "core," this course approaches policy-making and administration in a firm from the point of view of top management.

Fall and spring. Mr. Barrett.

355. SEMINAR IN PERSONNEL (3). Prerequisite, Business Administration 150, or equivalent, and permission of the instructor.

A course for individual research in special fields of personnel administration.

Fall and spring.¹ Messrs. Schwenning, Calhoon, and Whitehill.

1. Equivalent of three hours a week.

360. SEMINAR IN MARKETING (3). Prerequisite, permission of the instructor.

A course providing selected graduate students the opportunity to make an individual study of specific marketing problems.

*Fall and spring.*¹ Messrs. McGregor, Logsdon, and Kirkpatrick.

399. SEMINAR (3 each semester). Prerequisite, permission of the instructor. Individual research in a special field under the direction of a member of the department.

*Fall and spring.*¹

1. Equivalent of three hours a week.

DEPARTMENT OF CHEMISTRY

Professors: ARTHUR ROE, F. K. CAMERON,¹ J. T. DOBBINS, H. D. CROCKFORD, E. C.

MARKHAM, O. K. RICE, F. H. EDMISTER,² S. B. KNIGHT, R. L. MCKEE, H. C.

THOMAS, S. Y. TYREE, JR.

Associate Professors: J. C. MORROW, III, C. N. REILLEY, F. N. COLLIER

Assistant Professors: W. F. LITTLE, R. G. HISKEY

Instructors: J. P. COLLMAN, R. C. JARNAGIN, D. L. VENEZKY, J. T. YOKE, III

Research Associates: WENDELL FORST, G. R. FRYINGER, E. A. KNIPP, F. S. SADEK

Teaching Fellows: JEROME HOLLANDER, E. T. KITTLEMAN, W. T. LAYTON

National Science Foundation Fellows: SALLY MELVIN HORNER, RALPH CLEMENT NORTHROP, JR.

Southern Fellowship Fellows: GUY FLETCHER ALLEN, WAYNE BOYD COUNTS

Woodrow Wilson Fellows: DARRYL GILMER HOWERY, DORIS MARGARET THOMPSON

American Enka Fellow: JOHN THOMAS MACQUEEN

American Viscose Fellow: KENNETH LEE PARKS

du Pont Post-graduate Teaching Assistant: JOHN BROWN GOEHRING

Reynolds Fellows: ROBERT S. EISENTHAL, JAMES H. HOLLOWAY, DAVID C. PRIEST

Union Carbide Chemicals Company Fellow: ALLEN KEITH CLARK

Teaching Assistants: J. A. ABRAMS, R. L. ANGSTADT, T. E. AUSTIN, R. A. BERRY,

R. P. BLAIR, R. T. CAMPBELL, F. E. CAREVIC, F. I. CARROLL, W. L. CAUGHMAN,

J. C. COCHRAN, C. J. CRUZ, N. W. DAVIS, G. M. DORITY, R. J. DUBOIS, A. B.

FERGUSON, R. F. FISHER, R. G. GARMON, J. A. HILL, P. B. HOUNSHELL, B. J.

HRUTFIORD, J. D. JOHNSON, J. M. JUNG, S. D. KARRAKER, R. C. KOESTLER, A. W.

LOVEN, J. E. LYONS, P. V. MANNING, JR., R. L. MARSHALL, O. L. REAVES, J. H.

RHODES, D. W. ROGERS, A. G. ROSS, R. M. SHELLENBARGER, E. M. SMITH, H. M.

SMITH, ROY SMITH, C. R. STRINGFELLOW, B. D. THOMAS, W. P. TUCKER, FRANK

WALMSLEY, R. D. WHITMAN, R. A. YOUNT

For the A.B. with a major in chemistry, one of the following four sequences of courses may be selected: Chemistry 11-21, 43, 51, 61, 62, 44 or 83; or Chemistry 11-12, 21, 43, 61, 62, 44 or 83; or Chemistry 11-21, 43, 44, 51, 61, 64, 83; or Chemistry 11-12, 21, 43, 44, 61, 64, 83.

Those students who plan to teach in public high schools should read the statement on page 165.

1. Died August 18, 1958.

2. Professor, Emeritus.

Bachelor of Science in Chemistry³

FRESHMAN YEAR

Chemistry 11-21 or 4Chemistry 11-12 English 1, 2 Social Science 1-2	Mathematics 7, 8 or 15, 16 German 3, 4 Hygiene 11 Physical Education 1, 2
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SOPHOMORE YEAR

Mathematics 31, 32 Physics 24-25 or 34-35 English 21 Chemistry 43, 44 and 21, if 12 is taken	5German 21 Physical Education 3, 4
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JUNIOR YEAR

Chemistry 51 Chemistry 61, 62 Mathematics 33 Botany 41 or Zoology 41	Two of the following courses, at least one to be in Physics: Physics 103, 105, 106, 107, 108, 109; Mathematics 141 and 171 Elective, 1 non-science course
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SENIOR YEAR

Chemistry 181, 182 English 33	6Chemistry electives, 3 courses Non-science electives, 2 courses Free elective, 1 course
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Courses for Undergraduates⁷

4. INTRODUCTION TO CHEMISTRY (4). (Does not replace Chemistry 11 as a prerequisite for Chemistry 21. Open only to students in the Division of Health Affairs.)

An introduction to the study of the principles and laws of chemistry dealing with the structure of matter, the behavior of gases, classification of elements and compounds, solutions, ionization and equilibrium, colloids, and the descriptive chemistry of some typical non-metallic elements: sulfur, the halogens, nitrogen, phosphorus, and carbon.

Three lecture hours and one two-hour laboratory a week, fall. Laboratory fee, \$3.00. Staff.

5. INTRODUCTION TO ORGANIC AND BIOLOGICAL CHEMISTRY (4). Prerequisite, Chemistry 4. (Does not replace Chemistry 11, 12, or 21 as a prerequisite to any courses in the Department of Chemistry. Open only to students in the Division of Health Affairs.)

3. This program meets the requirements of the American Chemical Society for the training of professional chemists.

4. If the sequence 11-12 is followed, Chemistry 21 must be taken as a prerequisite to all other courses, and the number of chemistry elective courses will be reduced by one. (See footnote 6.)

5. It is understood that the language requirements of the General College must be satisfied.

6. Three chemistry elective courses to total a minimum of eight semester hours, at least one of which includes laboratory, and not more than two courses to be taken in any one of the four divisions of chemistry; analytical, inorganic, organic, physical.

7. For all laboratory courses in the department, there is a breakage fee ranging from \$5.00 to \$20.00 per semester charged by the Scientific Supply Room to cover the cost of certain non-returnable items and to cover the cost of any apparatus a student may break. The balance of this deposit is returned when the student checks out of the course.

Continuation of a study of some typical non-metallic and metallic elements. An introduction to organic chemistry and other background material for biological and nutritional chemistry. This will include a brief study of hydrocarbons, alcohols, ethers, carbohydrates, amino acids, and proteins.

Three lecture hours and one two-hour laboratory a week, spring. Laboratory fee, \$3.00. Staff.

11-12. GENERAL DESCRIPTIVE CHEMISTRY (10). No credit will be given for Chemistry 11 until either Chemistry 12 or Chemistry 21 is completed.

Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$4.50 a semester. Staff.

11-21. GENERAL DESCRIPTIVE CHEMISTRY AND QUALITATIVE ANALYSIS (10). No credit will be given for Chemistry 11 until either Chemistry 12 or 21 is completed.

Three lecture and four laboratory hours a week, spring. Laboratory fee, Chemistry 11, \$4.50; Chemistry 21, \$11.50. Staff.

43. ELEMENTARY QUANTITATIVE ANALYSIS (5). Prerequisite, General Chemistry and Qualitative Analysis.

Beginning quantitative analysis emphasizing both volumetric, gravimetric, elementary, and instrumental analysis techniques.

Two lecture and six laboratory hours a week, fall and spring. Laboratory fee, \$11.50. Messrs. Markham, Knight, Reilley, and Yoke.

44. QUANTITATIVE ANALYSIS: SECOND COURSE (5). Prerequisite, Chemistry 43.

A continuation of gravimetric and volumetric chemistry and an introduction to other analytical techniques.

Two lecture and six laboratory hours a week, spring. Laboratory fee, \$11.50. Messrs. Markham, Knight, Reilley, and Yoke.

51. INORGANIC CHEMISTRY (4). Prerequisite, Chemistry 21 or equivalent.

Three lecture and two laboratory hours a week, fall. Laboratory fee, \$7.50. Messrs. Knight, Tyree, Collier, Venezky; assistants.

61, 62. ORGANIC CHEMISTRY (6 each). Prerequisite, Chemistry 21.

Three lecture and six laboratory hours a week, both courses offered fall and spring. Laboratory fee, \$15.00 a semester. Messrs. Roe, McKee, Little, Hiskey, and Collman.

64. ORGANIC CHEMISTRY (2). Prerequisite, Chemistry 61.

Designed for premedical and pre dental students. No credit given for this course if Chemistry 62 (as offered on the semester basis) is taken.

Two hours a week, fall and spring. Messrs. Roe, McKee, Little, Hiskey, and Collman.

83. PHYSICAL CHEMISTRY FOR PREMEDICAL STUDENTS (4). Prerequisites, Chemistry 43, 61, Mathematics 7, 8, and one year of college physics. Does not carry credit toward the B. S. degree in Chemistry.

Designed for students taking pre dental, premedical, pharmaceutical, or biological work.

Three lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00. Messrs. Crockford, Morrow, and Jarnagin.

Courses for Graduates and Advanced Undergraduates

101. SPECIAL PROBLEMS IN CHEMISTRY (1 to 3). Prerequisite, to be determined by consultation.

Equivalent of one to three hours a week, every semester. Laboratory fee, to be determined by consultation with adviser or chairman of the department. Any member of the departmental staff.

143. THEORETICAL ANALYTICAL CHEMISTRY (3). Prerequisites, Chemistry 43, 44.

Three hours a week, fall. Mr. Dobbins.

145. INSTRUMENTAL ANALYSIS, ELECTRICAL METHODS (4). Prerequisites, Chemistry 43, 44, one year of college physics.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$10.00. Messrs. Markham, Knight, and Reilley.

146. INSTRUMENTAL ANALYSIS, OPTICAL METHODS (4). Prerequisites, Chemistry 43, 44, one year of college physics.

Two lecture and four laboratory hours a week, spring. Laboratory fee, \$10.00. Messrs. Markham, Knight, and Reilley.

147. QUANTITATIVE ORGANIC MICROANALYSIS WITH SOME QUANTITATIVE ANALYSIS OF FUNCTIONAL GROUPS (2). Prerequisites, Chemistry 43, 44, 62; prerequisite or corequisite, Chemistry 163.

Four laboratory hours a week, fall. Laboratory fee, \$10.00. Messrs. Markham and McKee.

151, 152. ADVANCED INORGANIC CHEMISTRY (3 each). Prerequisites or corequisites, Chemistry 181, 182.

Three hours a week, fall and spring. Messrs. Tyree and Collier.

154. INORGANIC PREPARATIONS (2). Prerequisite, Chemistry 51; prerequisites or corequisites, Chemistry 181, 182.

Four laboratory hours a week, fall or spring. Laboratory fee, \$10.00. Messrs. Tyree and Collier.

163. QUALITATIVE ORGANIC ANALYSIS (5). Prerequisites, Chemistry 61, 62.

Two lecture and six laboratory hours a week, fall. Laboratory fee, \$10.00. Messrs. Roe, McKee, and Little.

166a, 167a. ADVANCED ORGANIC CHEMISTRY I (3 each). Prerequisite or corequisite, Chemistry 163.

Three hours a week, fall and spring. Messrs. Roe, McKee, and Little.

166b, 167b, 168b. ADVANCED ORGANIC CHEMISTRY II (2 each). Prerequisite or corequisite, Chemistry 163.

Chemistry 166b, carbohydrates; Chemistry 167b, stereochemistry; Chemistry 168b, heterocyclics. Each given every two years or oftener.

Two hours a week, fall or spring. Messrs. Roe and McKee.

166c, 167c. ADVANCED ORGANIC PREPARATIONS (2 each). Prerequisite or corequisite, Chemistry 163.

Four laboratory hours a week, fall and spring. Laboratory fee, \$10.00. Mr. Little.

172. RADIOCHEMISTRY (2). Prerequisites, Chemistry 21, Physics 24, 25, and at least senior standing.

Two hours a week, fall. Messrs. Tyree, Collier, and others.

173. LABORATORY TECHNIQUES IN RADIOCHEMISTRY (2). Prerequisite, Chemistry 172 or equivalent.

Four laboratory hours a week, spring. Laboratory fee, \$10.00. Messrs. Tyree, Collier, and others.

181, 182. PHYSICAL CHEMISTRY (6 each). Prerequisites, Chemistry 43 or equivalent, satisfactory work in physics and integral and differential calculus. Prerequisites or corequisites, Chemistry 61, 62.

Three lecture and six laboratory hours a week, fall and spring. Laboratory fee, \$15.00 a semester. Messrs. Crockford and Morrow.

184, 185. CHEMICAL THERMODYNAMICS (3 each). Prerequisites, Chemistry 181, 182.

Chemistry 184, basic principles of thermodynamics, and Chemistry 185, advanced topics.

Three hours a week, fall and spring. Messrs. Crockford, Morrow, and Thomas.

188. REACTION KINETICS (3). Prerequisites, Chemistry 181, 182.

Three hours a week, spring. Messrs. Crockford, Morrow, and Rice.

191, 192. INDUSTRIAL CHEMISTRY (3 each). Prerequisites, Chemistry 61, 62.

Three hours a week, fall and spring. Messrs. Morrow and Little.

Courses for Graduates

242, 243. SEMINAR IN ANALYTICAL CHEMISTRY (3 each). Prerequisite or corequisite, Chemistry 143.

Three hours a week, fall and spring. Mr. Dobbins.

244, 245, 246. SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (2 each). Prerequisite, Chemistry 182.

(244, 245, 1959-1960 and alternate years; 246, 1958-1959 and alternate years.)

Two hours a week, fall and spring. Messrs. Markham, Knight, and Reilley.

251, 252. SPECIAL TOPICS IN INORGANIC CHEMISTRY (2 each). Prerequisites, Chemistry 151, 152.

Two hours a week, fall and spring. Messrs. Tyree and Collier.

254. SEMINAR IN INORGANIC CHEMISTRY (2). Prerequisites, Chemistry 151, 152.

(1958-1959 and alternate years.) *Two hours a week, spring.* Messrs. Tyree and Collier.

255. SEMINAR IN INORGANIC CHEMISTRY (2). Prerequisites, Chemistry 151, 152.

(1959-1960 and alternate years.) *Two hours a week, spring.* Messrs. Tyree and Collier.

258, 259. HISTORY OF CHEMISTRY (2 each). Prerequisites, Chemistry 21, 61, 62.

Two hours a week, fall and spring. Staff.

261, 262. SEMINAR IN INORGANIC CHEMISTRY (3 each). Prerequisites, Chemistry 166a, 167a, or 166b, 167b.

(1959-1960 and alternate years.) *Three hours, or equivalent, a week, fall and spring.* Messrs. Roe, McKee, Little, Hiskey, and Collman.

263. ORGANIC REACTION MECHANISMS (3). Prerequisites, Chemistry 166a, 167a, 181, 182.

(1958-1959 and alternate years.) *Three hours, or equivalent, a week, fall.* Mr. Little.

264, 265. SEMINAR IN ORGANIC CHEMISTRY (3 each). Prerequisites, Chemistry 166a, 167a, or 166b, 167b.

(1958-1959 and alternate years.) *Three hours, or equivalent, a week, fall and spring.* Messrs. Roe, McKee, and Little.

267. ORGANIC CHEMISTRY (3 to 6). Prerequisite, to be determined by consultation with professor in charge.

Three to six hours a week, every semester. Laboratory fee, to be determined by consultation with professor in charge. Messrs. Roe, McKee, Little, Collman, and Hiskey.

281. ATOMIC AND MOLECULAR CHEMISTRY (3). Prerequisites, Chemistry 181, 182.

Three hours a week, fall. Mr. Rice.

282. CHEMICAL BINDING AND VALENCE (3). Prerequisite, Chemistry 281.

(1959-1960 and alternate years.) *Three hours a week, spring.* Mr. Rice.

284. STATISTICAL MECHANICAL PROBLEMS IN CHEMISTRY (4). Prerequisite, Chemistry 281.

(1958-1959 and alternate years.) *Four hours a week, spring.* Messrs. Rice and Morrow.

286, 287. SEMINAR IN PHYSICAL CHEMISTRY (3 each). Prerequisites, Chemistry 184 and 281 or equivalent.

Three hours a week, fall and spring. Messrs. Crockford, Rice, Morrow, Thomas, and Jarnagin.

RESEARCH COURSES.

Laboratory fee, \$15.00 a course.

301. THESIS RESEARCH (1 or more).

Graduate Staff.

341. ANALYTICAL CHEMISTRY (1 or more).

Messrs. Dobbins, Markham, Knight, and Reilley.

351. INORGANIC CHEMISTRY (1 or more).

Messrs. Tyree and Collier.

361. ORGANIC CHEMISTRY (1 or more).

Messrs. Roe, McKee, Little, Hiskey, and Collman.

381. PHYSICAL CHEMISTRY (1 or more).

Messrs. Crockford, Rice, Morrow, Thomas, and Jarnagin.

DEPARTMENT OF CITY AND REGIONAL PLANNING

Professors: J. A. PARKER, F. S. CHAPIN, JR., F. N. CLEVELAND, P. P. GREEN, JR., D. A. OKUN, J. M. WEBB

Associate Professors: P. H. NASH, G. E. NICHOLSON, JR.

Lecturers: P. H. STEWART, A. N. TUTTLE, JR., S. F. WEISS, R. L. WILSON

Graduate Assistants: L. B. CHRISTMAS, C. E. GUBERNICK, J. H. KELLEY, D. J. RAMBO, J. H. STUCHELL

In addition to the above, Professor J. W. Horn of the School of Engineering, North Carolina State College, contributes to the program of the department.

The work offered in the Department of City and Regional Planning leads to the degree of Master of Regional Planning. The normal course includes three semesters of residence study, a summer of internship, and a thesis.

The demand for persons trained in the field of city and regional planning considerably exceeds the supply. Requests are received daily from private consulting firms, and from planning agencies at the local, state, regional and national level, in all parts of the country, for persons holding the master's degree in planning.

A bachelor's degree from an accredited institution in one of the following fields is required for admission: architecture, business administration, economics, engineering, geography, history, the humanities, landscape architecture, law, political science, psychology, public administration, or sociology. Applicants holding undergraduate degrees in fields not listed above may submit their credentials for consideration.

In addition to the core courses which place emphasis upon city planning and development the program provides opportunity for concentration in one of several specialties such as: regional planning, planning administration, planning methods and techniques, or research and analysis.

An important resource available to the department is the Urban Studies Program, a research activity of the Institute for Research in Social Science. Established in 1953, the program recently received a five-year Ford Foundation grant to investigate emerging forms of metropolitanism and develop approaches to problems of urban development.

The program leading to the master's degree, and opportunities in the field of city and regional planning are described in detail in a separate bulletin of the Department of City and Regional Planning, which may be obtained by addressing a request to the department.

Courses for Graduates and Advanced Undergraduates

100. PRINCIPLES OF STATISTICAL INFERENCE ¹(Statistics 100) (3). Pre-requisite, college algebra.

Introduction to fundamental concepts of statistical inference. The role statistical reasoning plays in the formulation of decisions based on incomplete information. Methods of dealing with the behavior of complex phenomena and of discovering relationship between variables. Testing hypotheses and evaluation of risks and errors. Application of principles to specific problems.

Fall. Mr. Nicholson.

106. INTRODUCTION TO PLANNING (3).

History of urban development and civic design. The evolution of modern professional planning. The role of the conservation of resources in a democratic society. Comprehensive but non-technical discussions of present-day urban and regional environmental problems from the viewpoint of social, economic, legislative and physical planning. An examination of some physical utopias and modern solutions, and an analysis of the present status of planning as an art, a science, and a profession.

Fall. Mr. Nash.

1. Social Statistics (Sociology 191) may be substituted for Statistics 100.

127. TRAFFIC AND TRANSPORTATION (3).

Study of traffic, transportation, and circulation related to planning problems, and dealing with highway, airport, and railroad location and terminal facilities; with traffic and parking surveys and control; and with transportation.

Spring. Mr. Horn.

Courses for Graduates

205. MUNICIPAL FACILITIES AND MANAGEMENT (3).

Study of the broader aspects of public health, sanitation, and municipal engineering as they relate to the planning, development, and administration of communities, with special emphasis on problems of water supply and sewage disposal.

Fall. Mr. Okun and others.

209. PLANNING AND GOVERNMENT (Political Science 209) (3).

The evolution of planning in the United States, the activities of planning agencies, planning problems at various levels of American government. Special emphasis is given to planning as a governmental process.

Fall. Mr. Cleaveland.

215. THEORY OF PLANNING SEMINAR (3).

A critical examination of planning theories and of the methodology and logic of the process of city and regional planning.

Spring. Messrs. Nash and Parker.

220. COMMUNITY AND SITE DESIGN (6).

Principles and procedures in the location and design of the major elements of urban communities in their regional setting within the context of a comprehensive plan. The broad considerations of locational factors for new community areas are examined in a systematic progression, extending from broad considerations of the regional setting to the detailed design of community elements. The focus will be on the comprehensive planning of the extension of an existing urban center, a satellite town, or a self-contained community.

Fall. Mr. Webb.

222. URBAN PLANNING PRACTICE (3).

The study of an existing community; a survey of existing social, economic, and physical conditions, and preparation of a physical plan and a planning program.

Spring. Staff.

223. ADVANCED PLANNING DESIGN (3).

Studies of problem areas such as residential, commercial, or industrial slums. Areas are selected and studied in the field; social, economic, and physical characteristics determined; and a renewal or improvement plan and program developed.

Fall. Messrs. Chapin, Wilson, and Parker.

227. URBAN RENEWAL SEMINAR (3).

An introduction to the social, economic, and physical bases of urban redevelopment, rehabilitation and other processes of urban renewal; a study of organization and administration of federal-local urban renewal programs; and an analysis and evaluation of urban renewal procedures.

Fall. Mr. Chapin.

230. PLANNING LEGISLATION (3).

Enabling legislation for planning; urban, rural, and county zoning; subdivision and other land use controls; urban redevelopment law; housing legislation; and limited access highway legislation, and other techniques of plan effectuation.

Fall. Mr. Green.

235. URBAN PLANNING METHODS AND TECHNIQUES (3).

Analysis and evaluation of methods and techniques employed in carrying out planning studies in the course of developing a comprehensive plan for an urban area.

Spring. Mr. Chapin.

240. PLANNING INTERNSHIP (6). Prerequisite, one semester's work in the City and Regional Planning curriculum.

One summer's professional employment in an approved planning office or agency under competent supervision. This course constitutes a full load for a summer session.

Summer session. Mr. Parker.

310. PLANNING RESEARCH SEMINAR (3).

Original research or field work on selected planning problems under special guidance of a member of the staff.

Either semester. Staff.

311. PLANNING RESEARCH SEMINAR (3).

Original research or field work on selected planning problems under special guidance of a member of the staff.

Either semester. Staff.

320. THESIS (3).

The original investigation of a planning problem or the presentation of an original planning project selected by the student and approved by the department. Credit is given upon acceptance of the thesis.

Either semester. Staff.

The Following List is Illustrative of the Courses from Which Electives Are Chosen

Department of Economics

- 111. International Resources and National Policy
- 131. Economic Theory
- 136. Economic Development in the United States
- 141. Public Finance
- 143. Problems in State and Local Finance
- 151. Transportation
- 153. Public Utilities
- 201. Advanced Economic Theory II
- 236. Economic History: Industrialization
- 242. Problems in Federal Finance
- 341. Research Course in Public Finance
- 399. Seminar

Department of Geology and Geography

- 151. Urban Geography
- 152. Economic Geography
- 153. Political Geography
- 157. Regional Geography of North America
- 159. Regional Geography of South America

- 160. Regional Geography of Middle America
- 171. Cartography
- 301. Seminar

Department of Political Science

- 101. Public Administration
- 132. Municipal Government in the United States
- 133. Municipal Administration in the United States
- 156. Contemporary Problems in Government
- 175. Political Parties
- 181. Recent National Policy and Administration
- 185. Financial Administration
- 191. Public Finance
- 193. Problems in State and Local Finance
- 210. Public Administration of Resources
- 225. Administrative Organization and Management
- 292. Problems in Federal Finance
- 331. Problems in Public Administration
- 341. Seminar Course

Department of Sociology

- 110. Rural Land Planning and Land Economics
- 153. Social Structure
- 154. Contemporary Society
- 168. The City
- 169. The Industrial Community
- 173. Community Recreation
- 180. Regional Analysis and Planning
- 181. Regional Sociology of the South
- 186. Population
- 197. Population Statistics
- 208. Methods in Social Research
- 218. Human Ecology
- 301, 302, 303. Graduate Research Seminar

DEPARTMENT OF CLASSICS

- Professors: B. L. ULLMAN, J. P. HARLAND, P. H. EPPS, WALTER ALLEN, JR., A. I. SUSKIN, R. B. HOUSE, R. J. GETTY
- Associate Professor: CHARLES HENDERSON, JR.
- Assistant Professor: H. R. IMMERWAHR
- Instructor: MARGARET E. REESOR
- Part-time Instructors: R. J. BARNETT, R. M. FRAZER, ELIZABETH F. HUNTER, C. J. MILHAUSER, J. S. WHITE
- Teaching Fellow: J. W. JONES
- Graduate Assistants: L. PALANCA, J. E. ZIOLKOWSKI

GREEK

Students interested in having their undergraduate major in Greek should consult the department in the last semester of their sophomore year. Six courses are required in addition to Greek 4. Students interested in a combined major in Latin and Greek should consult the Department of Classics. For Greek as satisfying the language requirements for the A.B. degree see page 139.

Courses for Undergraduates

1-2 ELEMENTARY GREEK (3 each).

Fall and spring. Mr. Immerwahr, Miss Reesor, and Miss Hunter.

1A-2A. ELEMENTARY GREEK (3 each).

Primarily for superior students, but graduate students who wish to get an elementary knowledge of Greek should take this course rather than the preceding.

Fall and spring. Mr. Epps.

NOTE: Two semesters of Greek or Latin or mathematics must be taken by each candidate for the degree of A.B.

3-4. INTERMEDIATE GREEK¹ (3 each).

Fall and spring. Miss Reesor.

NOTE: Majors in religion may substitute 3N (Elementary New Testament).

21, 22. ADVANCED GREEK (3 each). Prerequisite, Greek 4 or equivalent.

Fall and spring. Miss Reesor.

NOTE: Students so desiring may substitute Greek 88 for Greek 21 or 22.

80. HOMER, ILIAD (3). Prerequisite, Greek 22 or equivalent.

One semester. Mr. Immerwahr.

82. PLATO (3). Prerequisite, Greek 22 or equivalent.

One semester. Mr. Immerwahr.

88. GREEK NEW TESTAMENT (3). Prerequisite, Greek 4 or equivalent.

Spring. Mr. Epps.

Courses for Graduates and Advanced Undergraduates

112. HOMER, ODYSSEY OR ILIAD (3). Prerequisite, Greek 21 or equivalent.

Spring. Mr. Harland.

153. GREEK TRAGEDY, AESCHYLUS, SOPHOCLES OR EURIPIDES (3).

Prerequisite, Greek 21 or equivalent.

Fall. Mr. Immerwahr.

154. GREEK COMEDY (3). Prerequisite, Greek 21 or equivalent.

One semester. Mr. Epps.

156. GREEK LYRIC POETRY (3). Prerequisite, Greek 21 or equivalent.

A survey of the different types of Greek lyric poetry of the archaic and classical periods, based on selections of all the major lyric poets.

Spring. Mr. Immerwahr.

1. Either of these courses may be taken separately for elective credit.

158. GREEK NEW TESTAMENT (3). Prerequisite, Greek 21 or equivalent.
One semester. Mr. Epps.

171. GREEK HISTORIANS, HERODOTUS OR THUCYDIDES (3). Prerequisite, Greek 21 or equivalent.
One semester. Mr. Immerwahr.

181. GREEK ORATORS (3). Prerequisite, Greek 21 or equivalent.
Fall. Mr. Epps.

182. PLATO (3). Prerequisite, Greek 21 or equivalent.
One semester. Mr. Epps.

Courses for Graduates

301-302. GREEK SEMINAR.
Fall and spring. Mr. Immerwahr.

For additional courses see below under Courses Requiring No Knowledge of the Greek or Latin Language and under Comparative Literature. Attention is called also to courses in the Department of Comparative Linguistics.

LATIN

Students interested in having their undergraduate major in Latin should consult the department in the last semester of their sophomore year. A minimum of six courses is required in addition to Latin 21. Students interested in a combined major in Latin and Greek should consult the Department of Classics. For Latin as satisfying the language requirements for the A.B. degree see page 139.

Courses for Undergraduates

1-2. ELEMENTARY LATIN (3 each).

Fall and spring. Messrs. Barnett, Frazer, Jones, Milhauser, White, and Miss Hunter.

2A. ELEMENTARY LATIN (3).

For superior students.

Spring. Mr. Henderson.

NOTE: Two semesters of Greek or Latin or mathematics must be taken by each candidate for the degree of A.B.

3-4. INTERMEDIATE LATIN² (3 each).

3: Cicero. 4: Virgil. Freshman and sophomore elective.

Fall and spring. Messrs. Suskin, Frazer, Jones, and White.

3X. INTERMEDIATE LATIN (3).

For students who had two years of Latin in high school but find Latin 3 too difficult. The course begins with a thorough review of elementary Latin.

Fall and spring. Five hours a week, 3 credits. Mr. Suskin, Henderson, and Jones.

2. Either of these courses may be taken separately for elective credit.

14. RAPID READING IN LATIN (3).

May be taken with or without credit by those who wish to refresh their ability to read Latin prose. Class needs will determine selection of authors.

One semester. Mr. Suskin.

21, 22. ADVANCED LATIN (3 each). Prerequisite, three or four units of high school Latin or Latin 3-4.

Freshman and sophomore elective.

Selections from Latin prose and verse, chiefly Livy and Catullus.

21: *Fall and spring*; 22: *spring*. Messrs. Suskin, Getty, and Henderson.

51. CICERO'S LETTERS (3). Prerequisite, Latin 21.

Fall. Mr. Getty.

52. ROMAN SATIRE (3). Prerequisite, Latin 21.

One semester. Mr. Suskin.

53. LATIN LYRIC POETRY (3). Prerequisite, Latin 21.

Spring. Mr. Suskin.

71. COURSE FOR TEACHERS (3). Prerequisite, Latin 21.

On application. Mr. Ullman.

Courses for Graduates and Advanced Undergraduates

101. ROMAN HISTORICAL LITERATURE, TACITUS OR SUETONIUS (3).

Prerequisite, Latin 21.

Spring. Mr. Allen.

102. ROMAN DRAMATIC LITERATURE, PLAUTUS AND TERENCE (3).

Prerequisite, Latin 21.

One semester. Mr. Ullman.

103. PROSE WRITINGS OF THE REPUBLIC (3). Prerequisite, Latin 21.

One semester. Mr. Allen.

104. CICERO: POLITICAL CAREER AND WORKS (3). Prerequisite, Latin 21.

The course deals with Cicero's *Letters* or *Orations*, as determined by the needs of the class.

One semester. Mr. Allen.

105. JUVENAL (3). Prerequisite, Latin 21.

One semester. Mr. Ullman.

106. LUCRETIUS (3). Prerequisite, Latin 21.

One semester. Mr. Ullman.

107. LATIN COMPOSITION (3). Prerequisite, Latin 21.

Fall. Mr. Allen.

108. MARTIAL (3). Prerequisite, Latin 21.

One semester. Mr. Ullman.

109. CICERO: PHILOSOPHICAL WORKS (3). Prerequisite, Latin 21.

One semester. Mr. Ullman.

110. MEDIEVAL LATIN (3). Prerequisite, Latin 21.

Reading of selections from representative writers in prose and poetry.

Spring. Mr. Ullman.

112. ROMAN ELEGY (3). Prerequisite, Latin 21.

One semester. Mr. Ullman.

113. LIVY (3). Prerequisite, Latin 21.

One semester. Mr. Suskin.

117. VIRGIL (3). Prerequisite, Latin 21.

Fall. Mr. Getty.

118. FRAGMENTS OF EARLY LATIN POETRY (3). Prerequisite, Latin 21.

Livius Andronicus, Naevius, Ennius, Pacuvius, Accius, Lucilius, etc. Consideration of these authors as forerunners of the poets of the Golden Age.

Spring. Mr. Getty.

121. PETRONIUS (3). Prerequisite, Latin 21.

The relations of Petronius to satire and to development of the novel; introduction to Vulgar Latin.

One semester. Mr. Ullman.

122. LUCAN (3). Prerequisite, Latin 21.

Reading of most of *The Civil War* in Latin; consideration of Lucan's place in the literature of the Silver Age and in the tradition of epic poetry, together with a study of his historical accuracy.

One semester. Mr. Getty.

131. LATIN WRITERS OF THE ITALIAN RENAISSANCE (3). Prerequisite, Latin 21.

Reading of selections beginning with Petrarch, with some consideration of the origin of the Renaissance.

One semester. Mr. Ullman.

Courses for Graduates

202. LATIN EPIGRAPHY (3).

One semester.

203. LATIN PALEOGRAPHY (3).

Fall. Mr. Ullman.

301-302. LATIN SEMINAR.

Fall and spring. Mr. Getty.

310. THESIS COURSE.

Either semester. Messrs. Ullman, Getty, Allen, and Suskin.

CLASSICS IN ENGLISH

(Courses Requiring No Knowledge of the Greek or Latin Language)

The following courses in classical literature and civilization are especially designed to supply the necessary foundation for those who, without a reading knowledge of the ancient languages, wish a broader culture, or plan to specialize in modern literature, history, arts, etc. When properly approved, they will be allowed to count as part of the major requirement in other departments. They may be taken also to satisfy the requirements of a minor in literature. Courses 31 and 32 may be taken as sophomore electives. See also under Comparative Literature.

Courses for Undergraduates

31. GREEK LITERATURE (3). Sophomore elective. Not open to juniors and seniors or those who have taken Classics 61. A rapid survey of the major authors.
Fall. Mr. House and Miss Reesor.

32. LATIN LITERATURE (3). Sophomore elective. Not open to juniors and seniors or those who have taken Classics 62. A rapid survey of the major authors.
Spring. Mr. House and Miss Reesor.

61. GREEK LITERATURE (3). For juniors and seniors. Not open to those who have had Classics 31. A study of the major authors and their contributions to modern thought and literary forms.
Fall. Messrs. Henderson and Immerwahr.

62. LATIN LITERATURE (3). For juniors and seniors. Not open to those who have had Classics 32. A study of the major authors and their contributions to modern thought and literary forms.
Spring. Messrs. Henderson and Immerwahr.

75. GREEK CIVILIZATION (3).
The achievements of the ancient Greeks and their contributions to the modern world in art, architecture, medicine, science, politics, education, theater, religion, etc.
One semester. Mr. Harland.

76. ROMAN CIVILIZATION (3).
Roman public and private life, manners, and ideals; buildings, living conditions, commerce, religion, government, art, etc.
Fall. Mr. Allen.

77. GREEK MYTHOLOGY (3).
An introduction to mythology, followed by a study of the various cycles of myths which developed in ancient Greece. Illustrations from sculpture and vase-paintings.
Spring. Mr. Harland.

85. ARCHAEOLOGY AND THE BIBLE (3).
Biblical history in the light of excavations in Palestine and the ancient Near East. The art and civilization of the peoples of the Old Testament.
Fall. Mr. Harland.

91. ARCHAEOLOGY OF THE NEAR EAST (3).
The art and architecture of Egypt, Mesopotamia, and the rest of the ancient Near East.
Fall. Mr. Harland.

92. GREEK ARCHAEOLOGY (3).
The historical development of the art of Greece from the Bronze Age through the historical period. Greek architecture, painting, and the other arts.
One semester. Mr. Harland.

93. GREEK SCULPTURE (3).
The development of Greek sculpture as one phase of the civilization of the ancient Hellenes.
Spring. Mr. Harland.

95. ANCIENT ARCHITECTURE (3).
The architecture of Egypt, Mesopotamia, Greece, and Rome, with emphasis on the contributions made by these lands to modern architecture.
Fall. Mr. Harland.

97. ROMAN ART (3).

The arts of Rome, particularly architecture, sculpture, and painting, preceded by a survey of Etruscan and Hellenic art and their influence on Rome.

One semester. Mr. Harland.

Courses for Graduates and Advanced Undergraduates

103. GREEK AND ROMAN EPIC (3).

Reading of the ancient epics, with emphasis on Homer and Virgil. Structure of the poems, history of epic as a literary form, the poems as expressions of the spirit of their ages.

Spring. Mr. Allen.

107. GREEK DRAMATIC LITERATURE (3).

Reading of about fifteen Greek plays. Origin and growth of the Greek theater and drama; Aristotle's *Poetics*; literary quality of the plays; religious, social, and political ideas of the fifth century B.C.

Fall. Mr. Allen.

109. GREEK AND ROMAN HISTORICAL LITERATURE (History 109) (3).

The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others, with consideration of their literary qualities and their reliability as historians.

Spring. Mr. Allen.

114. GREEK AND ROMAN COMEDY (3).

One semester. Messrs. Epps and Allen.

176. ROMAN CIVILIZATION (3).

One semester. Mr. Allen.

193. HELLENIC ART (3). Prerequisite, Archaeology 92, or 93, or Greek 75, or Greek history.

Fall. Mr. Harland.

195. THE AEGEAN CIVILIZATION (3). Prerequisite, Archaeology 91 or ancient history.

One semester, on application. Mr. Harland.

CURRICULUM IN COMPARATIVE LINGUISTICS

Administrative Committee: Dean of the Graduate School, *Chairman*, Professors N. E. ELIASON, *Secretary*, W. W. ARNDT, J. R. GASKIN, U. T. HOLMES, G. S. LANE, R. W. LINKER, J. E. KELLER, B. L. ULLMAN

This curriculum includes linguistic courses offered in various departments of the University and other courses needed by students specializing in linguistic work.

Students may offer comparative linguistics as their major or minor field for the A.M. or Ph.D. degrees.

For an A.M. or Ph.D. minor in comparative linguistics, the prerequisites are an undergraduate minor, or its equivalent, in a department of language or literature at the University and a knowledge of two foreign languages, one of them French or German.

For an A.M. or Ph.D. major in comparative linguistics, the prerequisites are an undergraduate major, or its equivalent, in a department of language or literature at the University and a knowledge of two modern foreign languages, one of them French or German, and one classical language. Students must also have an understanding of the history and development of the English language.

Students desiring to major or minor in comparative linguistics must have their proposed program of studies approved by the secretary of this curriculum.

General

101. INTRODUCTION TO THE STUDY OF LANGUAGE (3).

The course will cover the main principles of the scientific study of language from both the descriptive and the historical points of view. The descriptive materials will include general phonetics and phonemics and problems of morphological analysis applied to languages of various types of structure. This will be followed by an introduction to the use of the comparative method in the reconstruction of language history and a survey of the results of that method as achieved during the nineteenth and twentieth centuries.

Spring. Mr. Arndt.

CELTIC 105. OLD IRISH (3).

Rapid sketch of morphology and readings in Old and Middle Irish, especially from Strachan, *Selections from the Tain*. Lectures on historical Irish grammar.

Spring. Mr. Holmes.

CELTIC 106. OLD WELSH (3).

Introduction to Modern and Middle Welsh. Texts: Evans, *A First Welsh Reader* and Strachan, *Introduction to Early Welsh*. Historical development of the Welsh language.

Spring, on demand. Mr. Holmes.

111, 112. BEGINNING SANSKRIT (3 each).

Grammar and readings from the epic and didactic literature. Supplementary lectures intended to serve as a basis for Indo-European comparative grammar.

Both semesters, on demand. Mr. Lane.

201, 202. ADVANCED SANSKRIT (3 each).

Extensive reading from the Dharmasāstra, the Sūtras and Brahmanas, and the Vedas.

Both semesters, on demand. Mr. Lane.

204. COMPARATIVE GRAMMAR OF GREEK AND LATIN (3).

Designed not only for the student of Classics but also a basic course for students of comparative Indo-European grammar.

Spring, on demand. Mr. Lane.

206. LITHUANIAN (3).

Introduction to the historical grammar of the Baltic languages.

Fall, on demand. Mr. Lane.

207. CHURCH SLAVIC (3).

Introduction to the historical grammar of the Slavic languages.

Spring, on demand. Mr. Lane.

341. THESIS (3).
Both semesters. Staff.

361, 362. SEMINAR IN LINGUISTICS (3 each).
Both semesters, on demand. Staff.

English Linguistics

237 (Formerly 101). OLD ENGLISH GRAMMAR AND READING (3).
Fall. Mr. Eliason.

238 (Formerly 204). HISTORY OF THE ENGLISH LANGUAGE (3). Pre-
 requisite, English 237 or permission of the instructor.
Spring. Mr. Eliason.

250 (Formerly 201). OLD ENGLISH: BEOWULF (3). Prerequisite, English 237.
Spring. Mr. Eliason.

Germanic Linguistics

161. HISTORY OF THE GERMAN LANGUAGE (3).
Fall, on demand. Mr. Arndt.

221. GOTHIC (3).
Fall, on demand. Mr. Lane.

222. OLD HIGH GERMAN (3).
Spring, on demand. Mr. Lane.

223. COMPARATIVE GERMANIC GRAMMAR (3).
Spring, on demand. Mr. Lane.

232. OLD SAXON (3).
Spring, on demand. Mr. Lane.

233, 234. OLD NORSE (3 each).
Both semesters, on demand. Mr. Lane.

235. MIDDLE HIGH GERMAN (3).
Fall, on demand. Mr. Lane.

Classical Linguistics

202. LATIN EPIGRAPHY (3).
Time to be arranged. Mr. Ullman.

203. LATIN PALEOGRAPHY (3).
Spring, on demand. Mr. Ullman.

Romance Linguistics

126. HISTORY OF THE FRENCH LANGUAGE (3). Prerequisite, French 72.
Spring. Mr. Linker.

220. VULGAR LATIN (3).
Fall. Mr. Holmes.

221, 222. OLD FRENCH (3 each).
Fall and spring. Mr. Holmes.

225. PROVENÇAL (3).
Spring. Mr. Linker.

221. OLD ITALIAN (3).

Fall. Mr. Holmes.

221, 222. OLD SPANISH (3 each).

Fall and spring. Mr. Keller.

221. OLD PORTUGUESE (3).

Spring. Mr. Holmes.

324. ROMANCE PALEOGRAPHY (3).

Spring, on demand. Mr. Linker.

370. MINOR ROMANCE TONGUES (3).

Spring. Mr. Holmes.

CURRICULUM IN COMPARATIVE LITERATURE

W. P. FRIEDERICH, *Chairman*. Advisory Committee: Professors JOHN G. KUNSTMANN, SAMUEL SELDEN, S. A. STOUDEMIRE, B. L. ULLMAN, Associate Professor LYMAN A. COTTEN

The Curriculum in Comparative Literature offers students an opportunity to become familiar with the work of the leading figures of Western literature and thereby to acquire a particularly broad and liberal education. An undergraduate major in comparative literature consists of eight courses, two of which must be in the classics. Students are urged to concentrate on two or three literatures and to select courses in the original languages whenever possible. They should see Mr. Friederich in their junior year.

LITERATURE IN ENGLISH TRANSLATION

Courses for Undergraduates

61. GREEK LITERATURE (3).

A survey of the major authors and their contributions to modern thought and literary forms.

Fall. Messrs. Henderson and Immerwahr.

62. LATIN LITERATURE (3).

A survey of the major authors and their contributions to modern thought and literary forms.

Spring. Messrs. Henderson and Immerwahr.

63. LITERARY ASPECTS OF THE BIBLE (Religion 63) (3).

The Old and New Testament will be taken up in alternate years.

Spring. Mr. Howell.

65. ORIENTAL LITERATURE (3).

A rapid survey of interesting features in the literature, language, and civilization of China, Japan, India, and Arabia.

Spring. Mr. Holmes.

Courses for Graduates and Advanced Undergraduates

107. GREEK DRAMATIC LITERATURE (3).

Reading of about fifteen Greek plays. Origin and growth of the Greek theatre and drama; Aristotle's *Poetics*; literary quality of the plays; religious, social, and political ideas of the fifth century B.C.

Fall. Mr. Allen.

117. CERVANTES (3).

A study of Cervantes' *Don Quixote* and the *Exemplary Novels*.

Fall. Mr. Stoudemire.

135. FRENCH CLASSICISM (3).

A survey of the origins of classicism in France. The plays of Corneille, Molière, Racine, and their contemporaries. The decline of classicism.

Spring. Mr. Wiley.

137. SURVEY OF GERMAN LITERATURE (3).

An outline emphasizing the masterpieces around 1200, the works of the pre-classic and classic periods, and contemporary literature.

Fall. Mr. Reichert.

155. GOETHE (3).

Goethe's life and work placed against the background of European classicism and romanticism.

Fall. Mr. Friederich.

156. DANTE (3).

The beginning of Italian literature. The *Vita Nuova* and *The Divine Comedy*.

Spring. Mr. Huse.

160. RUSSIAN PROSEWORKS OF THE NINETEENTH CENTURY (3).

Pushkin, Gogol, Turgenev, Dostoevski, and Tolstoi.

Fall. Mr. Arndt.

COMPARATIVE COURSES

Courses for Graduates and Advanced Undergraduates

103. GREEK AND ROMAN EPICS (3).

Reading of the ancient epics, with emphasis on Homer and Virgil. Structure of the poems, history of the epic as a literary form, the poems as expressions of the spirit of their ages.

Spring. Mr. Allen.

109. GREEK AND ROMAN HISTORICAL LITERATURE (3).

The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others, with consideration of their literary qualities and their reliability as historians.

Spring. Mr. Allen.

162. MODERN CONTINENTAL DRAMA (Dramatic Art 162) (3).

A study of representative plays of the modern period from Ibsen to Giraudoux.

Spring. Mr. Jurgensen.

163. LITERARY CRITICISM (3).

The principles which have animated classical, romantic, and realistic literature.

Fall. Mr. Bond.

170. THE MIDDLE AGES (3).

A survey of Medieval France, England, Germany, Spain, Italy, and Byzantium, from the viewpoints of civilization, art, and literature.

Spring. Mr. Linker.

175. RENAISSANCE AND BAROQUE (3).

The period from Dante to Calderón with special emphasis on Italian and Spanish contributions.

Fall. Mr. Friederich.

177. CLASSICISM AND PRE-ROMANTICISM (3).

The period from the French school of 1660 to the German *Sturm und Drang*, with special emphasis on French and English contributions.

Spring. Mr. Friederich.

185. INTRODUCTION TO FOLKLORE (3).

Definitions and examples of folklore in general and its various categories. Collection, classification, study, and analysis of folklore materials. Bibliography.

Fall. Mr. Hudson.

186. FOLK NARRATIVE (3).

Study of origin, development, and dissemination of myths, legends, and folktales, with a survey of their use in masterpieces of world literature.

Spring. Mr. Keller.

201. PROBLEMS AND METHODS IN COMPARATIVE LITERATURE (3).

The growth of comparative scholarship since 1800. Bibliography, Thematology, Influences, Parallelisms, *Zeitgeist*, and other modes of investigation.

Spring. Mr. Friederich.

240. READING COURSE (3).

One lecture hour a week, fall or spring. Mr. Friederich.

395. RESEARCH (with thesis 3).

Staff.

CREATIVE WRITING

See offerings in Department of Dramatic Art, Department of English, and Department of Radio, Television, and Motion Pictures. For Honors in Writing see under Division of the Humanities, page 155.

DEPARTMENT OF DRAMATIC ART

Professors: SAMUEL SELDEN,¹ R. B. SHARPE, EARL WYNN, H. E. DAVIS, J. W. PARKER

Associate Professors: KAI JURGENSEN,² FOSTER FITZ-SIMONS, RUSSELL GRAVES, T. M.

PATTERSON, WESLEY WALLACE, J. M. EHLE, JR.³

Assistant Professors: R. E. SCROGGS, J. S. CLAYTON,² DONALD KNOEPLER

Instructor: THOMAS REZZUTO, JR.

Lecturers: IRENE SMART RAINS, ELMER OETTINGER, JR.

Assistants: DAVID O. PETERSON, JAMES W. ARMACOST, ROBERT E. KETLER, JOHN

STOCKARD, CAROLYN E. QUINN, JOHN SNEDEN

1. Resigned January 29, 1959.

2. Absent on leave, 1958-1959.

3. Absent on leave, fall semester, 1958-1959.

The courses in the Department of Dramatic Art are designed to give the student a comprehensive knowledge of dramatic literature and vigorous training in all phases of theatre work, from the writing of the play to the complete presentation before an audience.

Intensive study and research in all phases of dramatic art are made effective through introductory and advanced lecture courses, the seminar, and supervised practice work in theatre technique. The library resources for the student of dramatic literature and of the history of the theatre include a large and constantly increasing collection of critical and technical works and plays of all periods.

Practical training for the student of playwriting, acting, directing, and technical work is provided by the producing unit of the Department of Dramatic Art, The Carolina Playmakers. The Playmakers Theatre building, the Koch Memorial Forest Theatre, and the scene shop, furnish ample opportunity for the student to test theory with practice, in both experimental and major performances. A description of the Playmakers' active program of work, both on and off the campus, will be found in Part V of this catalogue.

Admission to the Department of Dramatic Art presupposes the completion of the work of the General College in this institution or of equivalent work done elsewhere.

Requirements for a Major: A student choosing dramatic art as his major field should take a minimum of twenty full courses distributed as follows:

Seven to ten courses in dramatic art:

- One course in Voice Training (40).
- One course in Technical Methods (64).
- One course in Technical Laboratory (65).
- One course in Shakespeare in the Theatre (150).

At least two courses in dramatic literature from: History of the Theatre (160), Continental Drama before Ibsen (161), Modern Continental Drama (162), British and American Drama of the Twentieth Century (164).

At least one course in theatre arts from: 57, 58, 59, 61, 63, 66, 76, 77, 78, 79, 87, 99, 155, 156, and 190.

Five to eight courses in allied departments of the Division of the Humanities, to be taken after conference with the department adviser.

Five to eight courses from other divisions.

Students interested in reading and writing for Honors in dramatic art should consult the chairman of the department. Special attention is called to the opportunity for qualified students to undertake a program of original writing in association with students in English and Radio, Television, and Motion Pictures, under the guidance of the University Committee on Writing. (See under Division of the Humanities, page 155.)

Students who plan to take graduate work must include in their undergraduate program one course in playwriting and one in acting. Those who intend to take the advanced courses in Technical Direction (200) and Staging Methods (202) should see the prerequisites for those courses.

Courses for Undergraduates

30. THEATRE APPRECIATION (3). Sophomore elective open to juniors and seniors.

A survey of historical, literary, technical, and sociological aspects of the theatre by means of regular and illustrated lectures, demonstrations, classroom experiments, criticisms, and the reading of about ten representative modern plays.

Fall. Mr. Graves.

40. VOICE TRAINING (3). Open to dramatic art, radio, television, and motion pictures majors only.

A study of the fundamental principles underlying the effective use of voice and speech.

Two lecture and two laboratory hours a week, fall or spring. Fee for materials, \$1.50. Mr. Wynn.

RTVMP 45. CRITICAL ANALYSIS OF RADIO, TELEVISION, AND MOTION PICTURES (3). Sophomore elective, open to juniors and seniors. Limited to 60 students.

Works of artistic merit are studied in terms of the intentions and attainment of the artists involved in their preparation. Through reading and study, as well as through the classroom use of scripts, radio recordings and television and motion picture films, the student becomes acquainted with the contributions made by the writer, director, performers, and other artists working in a production, and of their relationships.

Fall and spring. Fee for materials, \$3.00. Mr. Oettinger and staff.

50. DIRECTED READINGS (3). Only for graduate transfer students needing to make up undergraduate deficiencies in the department.

Assigned readings in a selected field of dramatic literature.

Summer only. Mr. Parker.

57. THE DANCE (3). Open for credit to dramatic art majors and recreation majors in sociology only.

A study of the cultural development of the Dance and its relation to the other arts from the beginning to the present time, with practical training in fundamental techniques.

One lecture and four laboratory hours a week, fall. Fee for materials, \$3.00. Mr. Fitz-Simons.

RTVMP 58. DEVELOPMENT OF BROADCASTING, PART I (3).

Basically a two-semester course, Part I deals specifically with definitions of broadcasting, discussion of the importance of broadcasting and motion pictures, organization of stations and networks, the role of the "public interest" in broadcasting, comparisons of the American system with those of other nations, and a survey of broadcasting career opportunities.

Fall and spring. Mr. Wallace.

RTVMP 59. DEVELOPMENT OF BROADCASTING, PART II (3).

Prerequisite, RTVMP 58.

A continuation of historical, social, cultural, and economic aspects of broadcasting with emphasis on the study of agencies and institutions closely identified with the economic aspects, surveys of audience characteristics and factors which influence program structure, consideration of relationships between broadcasters and advertisers, and a study of station program policies, plans, and operation.

Fall and spring. Mr. Wallace.

61. ACTING (3). Registration is limited to thirty.

A study of fundamental principles and practice for the actor.

Fall. *Fee for materials, \$2.00.* Messrs. Fitz-Simons and Selden.

63. PLAY DIRECTION (3). Prerequisite, Dramatic Art 61.

Registration is limited. Before registering for this course, students must secure the permission of the instructor. Students training for teaching who wish to take this course to complete a minor program in dramatic art should consult their adviser. (A student cannot receive credit toward an A.B. degree for both this course and Dramatic Art 190.)

The theory and practice of play directing.

Spring. *Fee for materials, \$2.00.* Mr. Fitz-Simons.

64. TECHNICAL METHODS⁴ (3).

Introduction to equipment and the procedures of handling scenery, lighting, costumes, and make-up in the theatre.

One lecture and four laboratory hours a week, fall. *Fee for materials, \$2.00.* Messrs. Davis, Rezzuto, and Mrs. Rains.

65. TECHNICAL LABORATORY⁴ (3).

Theory and practice in the preparation of scenery, lighting or costumes for the theatre.

One lecture and four laboratory hours, spring. *Fee for materials, \$2.00.* Messrs. Davis, Rezzuto, and Mrs. Rains.

66. STAGE DESIGNS⁴ (3).

Principles of visual design and their application in the theatre. Specific planning techniques used in scenic design, costume design, or lighting design.

One lecture and four laboratory hours a week, spring. *Fee for materials, \$2.00.* Messrs. Davis, Rezzuto, and Mrs. Rains.

76. RADIO PRODUCTION ARTS (RTVMP 76) (4).

A study of the principles and methods of radio production and direction.

Two lecture and four laboratory hours a week, fall and spring. *Fee for materials, \$4.00.* Mr. Oettinger.

77. TELEVISION PRODUCTION ARTS (RTVMP 77) (4).

A study of the principles and methods of television production and direction.

Two lecture and four laboratory hours a week, fall and spring. *Fee for materials, \$4.00.* Mr. Clayton.

78. WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART I (RTVMP 78) (3).

A basic course dealing chiefly with drama in which the student writes two dramatic scripts, does routine continuity for radio and television, and completes a special writing project which he selects in consultation with the instructor.

Fall and spring. Messrs. Ehle and Oettinger.

4. Those enrolled will be expected to assist in the technical work of the productions of The Carolina Playmakers.

79. WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART II (RTVMP 79) (3). Prerequisite, RTVMP 78.

A continuation of RTVMP 78.

Fall and spring. Messrs. Ehle and Oettinger.

87. MOTION PICTURE PRODUCTION ARTS (RTVMP 87) (4).

Permission of the instructor must be secured. Physics 45, PHOTOGRAPHY, is highly recommended as a preliminary to this course.

A study of the principles and methods of motion picture production and direction.

Two lecture and four laboratory hours a week, fall and spring. Fee for materials, \$4.00. Mr. Scroggs.

99. COURSE FOR HONORS (3). See note on Honors in the introduction to this departmental section, and "Program for Honors Work" in the Division of the Humanities.

Readings and the preparation of a piece of critical or original writing under the direction of departmental advisers.

Courses for Graduates and Advanced Undergraduates

150. SHAKESPEARE IN THE THEATRE (3).

A study of the literary and stage history of about twelve representative plays.

Fall. Mr. Graves.

155. PLAYWRITING I (3).

A practical course in the writing of the stage play.

Fall. Fee for experimental production, \$3.00. Mr. Patterson.

156. PLAYWRITING II (3).

The principles of dramatic construction and practice in the writing of one-act plays.

Spring. Fee for experimental production, \$3.00. Mr. Patterson.

160. HISTORY OF THE THEATRE (3).

A study of the development of the theatre, its place in the history of civilization and its changing relations to social conditions.

Spring. Mr. Graves.

161. CONTINENTAL DRAMA BEFORE IBSEN (3).

A general survey of the drama and the theatre from Aeschylus to Goethe.

Fall. Mr. Graves.

162. MODERN CONTINENTAL DRAMA (Comparative Literature 162) (3).

A study of representative plays of the modern period from Ibsen to Giraudoux.

Spring. Mr. Graves.

190. THEORY AND PRACTICE OF PLAY DIRECTION (3). Under special conditions, with the permission of the department, this course may be substituted for either Dramatic Art 63 or 201.

An intensive course of study in the problems of the stage director, including the organization of a producing group, the selection of plays, casting and rehearsing.

Spring. Fee for materials, \$2.00. Mr. Parker.

195 (164). ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (3).

A survey of dramatic movements and writers from 1900 to the present.

Fall. Mr. Sharpe.

Courses for Graduates

200. TECHNICAL DIRECTION (3). Prerequisites, Dramatic Art 64, 65, and 66, or equivalent training in technical practice.

Problems of the technical director in coordinating the engineering and mechanical aspects of production and theatre architecture.

(1958-1959 and alternate years.) *Fall. Fee for materials, \$2.00.* Mr. Davis.

201. PLAY DIRECTING, ADVANCED (3). Prerequisites, Dramatic Art 61 and 63 or equivalent training in acting and directing.

Theory and practice in the training of actors and in directing.

Spring. Fee for materials, \$3.00. Mr. Selden.

202. STAGING METHODS (3). Prerequisites, Dramatic Art 200 and a course in freehand drawing or equivalent experience.

The historical development of staging methods in the theatre; theory and practice in modern scenery and lighting design.

(1959-1960 and alternate years.) *Spring. Fee for materials, \$2.00.* Mr. Davis.

203. TECHNICAL PROBLEMS IN PLAYWRITING (3). Prerequisite, Dramatic Art 155 or 156.

An advanced course in the principles of writing the full-length play. A study of the organization of materials, the development of the scenario, and the preparation of the completed script.

Fall and spring. Mr. Patterson.

210. THEATRE ADMINISTRATION (3). Open to selected dramatic art majors only.

A study of practical problems of organization, management, and promotion, especially in the regional theatres.

Spring. Mr. Parker.

299. THEATRE WORKSHOP (2 to 8 hours course credit, not towards a master's degree).

Open to a limited number of qualified students who have already secured a bachelor's or master's degree. Before registering for this course, students must have the special permission of the head of the department.

Advanced training in one field of specialization.

The staff of The Carolina Playmakers.

340. SPECIAL READINGS (3).

Research in a special field of modern drama or the history of the theatre. This course may not be repeated for credit. Mr. Selden.

395. SEMINAR: MODERN DRAMA (English 395) (3).

Research in dramatic literature, theatrical history, and staging methods.

Fall. Messrs. Sharpe, Selden, and Patterson.

DEPARTMENT OF ECONOMICS

Professors: P. N. GUTHRIE, D. D. CARROLL,¹ C. P. SPRUILL,² CLARENCE HEER,¹ H. D. WOLF, D. H. BUCHANAN,³ M. S. HEATH, D. J. COWDEN, R. S. WINSLOW, O. T. MOUZON, L. D. ASHBY, C. E. PHILBROOK,⁴ M. W. LEE, R. W. PFOUTS, H. HOTTELLING

Associate Professors: J. C. INGRAM, W. N. PARKER,⁴ RASHI FEIN⁴

Acting Associate Professor: JAMES POTTER

Assistant Professors: R. L. BUNTING, D. B. JOHANNESSEN

Research Associate: H. A. LATANÉ

Lecturers: FRANZ GUTMANN,⁵ J. H. BLACKMAN, W. L. IVEY, J. F. KARCY, C. R. MILTON

Part-time Instructors: P. K. SINCLAIR, M. E. LEE, J. C. FISHER, J. V. DiBERARDINO, R. M. DUVAL, M. B. JONES, D. C. KING, R. L. KNOX, R. C. ROBERTS, F. ROSSNER, R. L. ROWAN

Teaching Fellows: W. G. WEBB, J. M. ZACCONE

The Department of Economics offers courses leading to an A.B. degree with a major in economics through the College of Arts and Sciences and the A.M. and Ph.D. degrees in economics are offered through the Graduate School. Courses in economics are elected by and/or required of students in other departments and schools.

Undergraduate Major

Opportunities for Economics Majors: The courses leading to an A.B. degree with a major in economics comprise a large area of inquiry into the problems and structure of the economic segment of society. The curriculum available provides the opportunity to achieve one or more of the following objectives:

1. General education for intelligent citizenship with special emphasis upon the development of the understanding of the principles and problems of modern life.
2. Preparation for private employment. In pursuing this objective, supplementary courses in business administration may be selected and integrated with the student's program.
3. Preparation for governmental employment.
4. Preparation for post-graduate work leading to the degrees of A.M. and Ph.D. in economics.
5. Specialized combination undergraduate programs such as pre-law and international studies, and either of the R.O.T.C. programs available at the University.

1. Kenan Professor, Emeritus.

2. Absent on leave, fall semester, 1958-1959.

3. Professor, Emeritus.

4. Absent on leave, 1958-1959.

5. Lecturer, Emeritus.

Requirements: For the degree of A.B. with a major in economics:

1. A minimum total of twenty (20) full semester divisional (Social Science) and non-divisional (Humanities and Natural Science) courses (60 semester hours) is required in addition to those necessary for admission to the College of Arts and Sciences.
2. The minimum total of twenty (20) courses (i.e., 60 semester hours) must be selected in accordance with the following distribution:
 - (a) Six (6) full semester courses in economics (in addition to Economics 31 and 32) including Economics 70 and Economics 81 are required, and seven (7) full semester courses in economics are recommended.
 - (1) Economics 31 and 32 should be taken while in General College. A grade of C or better in Economics 31 and 32 is required as a condition for admission to a program leading to a major in economics.
 - (2) Mathematics 7 and 8, or 11 and 12, or 15 and 16 are required and should be taken in General College. Students are advised to take Mathematics 10 if they are preparing for private employment in business.
 - (b) From six (6) to seven (7) full semester allied courses (18 to 21 semester hours) within the Division of Social Sciences are required. With the permission of the chairman of the department, a maximum of three (3) business administration courses may be counted as allied courses, if they constitute a part of a well-developed and integrated program of study. The combined maximum number of courses in economics and business administration shall not exceed nine (9) (i.e., 27 semester hours).
 - (c) From six (6) to seven (7) full semester non-divisional courses within the Division of Humanities and Natural Sciences are required.

Program for Honors Work: A student may, as a result of distinguished work, be awarded a degree with Honors or Highest Honors. The details of this program of special studies are available from the chairman of the department.

Graduate Degrees

The A.M. and Ph.D. degrees in economics are offered through the Graduate School. The objectives, requirements and other details for the A.M. and Ph.D. degrees are explained in the catalogue of the Graduate School.

General Requirements

Economics 31-32, or equivalent, is prerequisite to all other courses in Economics and all courses in Business Administration, except as otherwise indicated. Economics 61 with a grade of C or better may, under certain circumstances, be substituted for Economics 31-32.

Courses for Undergraduates

30. INTRODUCTION TO ECONOMICS (3). Sophomore elective. Closed to prospective Economics and Business Administration majors and to juniors and seniors. Economics 31-32 is not prerequisite.

Provides a general understanding of the economic system. Discusses economic problems on the market, national and international levels with primary emphasis on national problems.

Fall and spring. Messrs. Fein and Heath.

31-32. GENERAL ECONOMICS (3 each semester). Not open to freshmen. Sophomore elective.

The organization and underlying principles of modern economic life. The production, exchange, distribution, and consumption of wealth, and auxiliary economic problems.

Fall and spring. Staff.

34. PHARMACEUTICAL ECONOMICS (3).

This course is planned to give pharmacy students a broad understanding of the economic system in general and a more thorough introduction to accepted business practices.

Fall. Mr. Roberts.

61. PRINCIPLES OF ECONOMICS (3). For juniors and seniors not majoring in economics; not open to students in the General College. Economics 31-32 is not prerequisite.

The structure, functions, and underlying principles of modern economic life. May be used as general economics prerequisite for advanced courses if grade of C or better is earned.

Fall and spring. Mr. Mouzon.

70. ELEMENTARY STATISTICS (3). Prerequisites, Mathematics 7 and 8, or 11 and 12, or 15 and 16.

Sources and collection of data, tabular and graphic presentation, averages, dispersion, time-series analysis, correlation, index numbers, reliability of statistics and tests of significance.

Recitation, three hours; fall and spring. Laboratory fee, \$3.00. Messrs. Cowden, Duvall, Karcz, and Milton.

74. GENERAL ACCOUNTING (3). Prerequisite, junior-senior standing. Non-business administration students only.

Basis for understanding, evaluating, and interpreting accounting information. Accounting process, determination of cost and income, sources and uses of capital, reporting, changing price levels.

Fall and spring. Messrs. Graham and Langenderfer.

81. MONEY AND BANKING (3).

The functional operation of the American monetary system. The value of money, with particular reference to growing influences exerted by banks upon our credit structure.

Fall and spring. Messrs. Philbrook, Kreps, Bunting, Flynn, and Ivey.

91. RESOURCES AND INDUSTRIES (3). Prerequisite, junior standing. Economics 31-32 is not prerequisite.

Availability of agricultural and industrial resources. Survey by industry analysis of selected social and economic problems related to the appraisal and utilization of world resources. An international studies course.

Spring. Mr. Mouzon.

98. HONORS COURSE (3).

Reading and preparation of an essay under the direction of a member of the faculty.

Fall.

99. HONORS COURSE (3).

Reading and preparation of an essay under the direction of a member of the faculty.

Spring.

Courses for Graduates and Advanced Undergraduates

111. INTERNATIONAL RESOURCES AND NATIONAL POLICY (3).

International resource problems which necessitate United States policy decisions. National policy and objectives and nature of resources; production potentials; major agricultural and industrial resources, and international interdependence; and international security.

Fall. Mr. Mouzon.

131. ECONOMIC THEORY (3).

The analytical devices basic to the field of economics. The forces determining relative prices of products and of productive services. The role of competition in the planning of social-economic affairs.

Fall and spring. Messrs. Philbrook and Pfouts.

135. ECONOMIC DEVELOPMENT IN WESTERN EUROPE (3).

Economic growth under capitalism. Response of European financial, industrial, and social system to opportunity offered by technological change, population growth and overseas markets. Role of nationality and the national state.

Spring. Messrs. W. N. Parker and Potter.

136. ECONOMIC DEVELOPMENT IN THE UNITED STATES (3).

Sources and mechanism of American industrial growth and relative decline of agriculture. Role of financial, commercial, and industrial organization. Regional growth and prospects for continued growth. Position in changing world economy.

Fall. Messrs. W. N. Parker and Potter.

137. ECONOMIC DEVELOPMENT IN JAPAN, CHINA, AND THE INDIAN PENINSULA SINCE 1800 (3).

A study of traditional economic life and modern economic developments in Japan, China, and India. Special attention is given to modern commerce, finance, industry, and labor and their effect on indigenous cultures.

(Not offered in 1958-1959.) *Spring.* Mr. Ingram.

141. PUBLIC FINANCE (Political Science 191) (3).

The facts and theories of American public finance—federal, state, and local. Public expenditures, taxes and other forms of revenue, public borrowing, and the economic effects of fiscal administration and policies.

Fall and spring. Messrs. Spruill and Ashby.

143. PROBLEMS IN STATE AND LOCAL FINANCE (Political Science 193)

(3). Prerequisite, Economics 141 or equivalent.

Selected problems relating to the financing of state and local functions.

Spring. Messrs. Spruill and Ashby.

145. BUSINESS ORGANIZATION AND SOCIAL CONTROL (3).

Theories of private enterprise and public action; the growth of economic concentration; and the pattern of public control and its effects.

Fall. Mr. Heath.

151. THE AMERICAN TRANSPORTATION SYSTEM (3).

A course designed to give the student an understanding of the magnitude, structure, and functions of the transportation system of the United States.

Fall and spring. Messrs. Blaine and Rose.

152. TRANSPORTATION REGULATION AND RATES (3).

The course deals with the significance of state and federal regulation and with the theory and practice of rate determination in transportation.

Fall and spring. Mr. Blaine.

153. PUBLIC UTILITIES (3).

The theory, techniques, and problems of government intervention in the establishment and operation of communications and power facilities, whether through regulation or public ownership.

Fall. Mr. Blaine.

161. INTERNATIONAL ECONOMICS (3).

International economic relations. Problems involved in maintaining a world order and the role of free enterprise in their solution. The bases of trade, tariffs, exchange control, and trade policies.

Fall. Mr. Ingram.

162. INTERNATIONAL FINANCE (3). Prerequisite, Economics 81 or equivalent.

Monetary aspects of international trade and investment. The problems of maintaining world monetary order. Exchange rates, the balance of payments, international investment. Techniques of international finance.

(Not offered in 1958-1959.) *Spring.* Mr. Ingram.

171. FUNDAMENTALS OF STATISTICAL THEORY (3). Prerequisite, Economics 70 or equivalent.

Polynomial and exponential trends; moving seasonal. Index numbers. Estimation; power of a test; differences among variances and means; binomial distribution; chi-square. Multiple and partial correlation; correlation ratio; rank correlation.

Recitation, three hours; laboratory problems; fall. Laboratory fee, \$3.00. Mr. Cowden.

172. INTERMEDIATE STATISTICS (3). Prerequisite, Economics 171 or equivalent.

Orthogonal polynomials; growth curves; harmonic analysis; weighted moving averages; serial correlation. Theory of index numbers. Analysis of variance and covariance. Nonlinear multiple correlation; multiple-partial correlation coefficient; compact methods.

Recitation, three hours; laboratory problems; spring. Laboratory fee, \$3.00. Mr. Cowden.

173. QUALITY CONTROL BY STATISTICAL METHODS (Business Administration 135) (3). Prerequisite, Economics 70 or equivalent.

Control charts. Historical analysis. Process control: variables; defects; defectives. Operating characteristic. Tolerance limits. Lot acceptance; single; double; multiple; sequential. Producer's and consumer's risk. AOQL. Cost functions.

Recitation, three hours; laboratory problems; spring. Laboratory fee, \$3.00. Mr. Cowden.

174. ECONOMETRICS (3). Prerequisites, Economics 171 and Mathematics 33 or equivalents.

The application of statistical methods to economic theory. Topics include measurement of demand and costs and macro-economic models.

(1959-1960 and alternate years.) *Spring.* Mr. Pfouts.

180. MATHEMATICS FOR ECONOMISTS (no credit).

Review of the calculus and its relevance to economic theory. Matrix algebra, difference equations and related topics together with applications in contemporary economic theory.

(1959-1960 and alternate years.) *Fall.* Messrs. Ashby and Pfouts.

182. MATHEMATICAL ECONOMICS (Statistics 182) (3). Prerequisite, Mathematics 171; corequisite, Mathematics 147.

Perfect and imperfect competition. Monopoly. Utility vs. ranking of preferences. Relations between commodities. General equilibrium. Effects of taxes and controls of various kinds. Index numbers.

(1958-1959 and alternate years.) *Fall.* Mr. Hotelling.

183. ADVANCED MATHEMATICAL ECONOMICS (Statistics 183) (3). Prerequisites, Economics 182 and Mathematics 141.

Dynamic variations in the economy. Calculus of variations and stochastic process theory with applications to economic problems. Valuation, depreciation, and depletion. Most profitable rates of exploitation of mineral and biological resources.

(1958-1959 and alternate years.) *Spring.* Mr. Hotelling.

185. BUSINESS CYCLES (3). Prerequisite, Economics 81 or equivalent.

The nature and causes of business cycles and fluctuations in employment. The means of combating inflation and depression.

Fall. Mr. M. W. Lee.

191. AN INTRODUCTION TO THE LABOR PROBLEM (3).

A survey of the field of labor with emphasis on the labor force, the structure of the labor market, collective bargaining, wages, hours, and the hazards of modern industrial life.

Fall and spring. Messrs. Wolf, Guthrie, and Mrs. Johannesen.

192. COLLECTIVE BARGAINING (3). Prerequisite, Economics 191 or equivalent.

This course deals with collective bargaining agencies, procedures, and the subject matter of collective bargaining. Cognizance is taken of the existing legal limitations on collective bargaining.

Fall and spring. Mr. Wolf.

193. HISTORY OF THE LABOR MOVEMENT (3). Prerequisite, Economics 191 or equivalent.

A history of the labor movement in the United States, with some references to its development in other industrial countries. The main objectives of the labor movement and its economic consequences are stressed.

Fall. Mr. Guthrie.

194. SOCIAL INSURANCE (3). Prerequisite, Economics 191 or equivalent.

The origin and development of social insurance as a means of dealing with the hazards of modern industrial life. Special consideration of the development of social insurance systems in the United States.

(1958-1959 and alternate years.) *Spring*. Mr. Guthrie.

195. COMPARATIVE ECONOMIC SYSTEMS (3).

A review of the basic institutions of our American economic system and a comparison with other existent or proposed economic systems.

Fall. Messrs. Fein and Blackman.

197. GOVERNMENT AND BUSINESS (Political Science 197) (3).

The regulation and control of business by government. Constitutional provisions, the antitrust laws, public utilities, taxation, labor laws, and transportation are the fields explored.

Fall and spring. Mr. Carter.

Courses for Graduates

200. ADVANCED MICRO-ECONOMIC THEORY (3).

Ordinal theory of utility, axiomatic approaches to utility, index number problems and revealed preference. The theory of demand. Models of perfect competition, monopoly, oligopoly, monopsony, oligopsony, and monopolistic competition.

Fall. Mr. Pfouts.

201. ADVANCED MACRO-ECONOMIC THEORY (3).

Concepts and measurements of national income. Determination of national income.

Spring. Mr. Ashby.

202. WELFARE ECONOMICS (3). Prerequisite, Economics 200 or equivalent.

Advanced topics in utility, demand, and the economics of imperfect competition. Topics in the theory of economic welfare.

(1959-1960 and alternate years.) *Spring*. Mr. Pfouts.

203. LINEAR PROGRAMMING (Business Administration 203) (3). Prerequisite, Economics 200 and 201 or equivalent.

Topics in linear programming and game theory. Dynamic and static aspects of linear models.

(1960-1961 and alternate years.) *Fall*. Mr. Ashby.

211. ADVANCED COMMODITY ECONOMICS (3). Prerequisite, Economics 111 or equivalent.

The supply and demand conditions of selected commodities representing certain types. The institutional factors affecting these conditions, with special reference to commodity control schemes.

(Not offered in 1958-1959.) *Spring*. Mr. Mouzon.

235. ECONOMIC HISTORY: PRE-INDUSTRIAL (3).

Economics of peasant agriculture, exemplified in medieval Europe and modern underdeveloped regions. Sources of change within agriculture. Role of money, trade, local industry and mercantilist policies in early industrialization.

Fall. Messrs. W. N. Parker and Potter.

236. ECONOMIC HISTORY: INDUSTRIALIZATION (3).

Comparative study of sources and mechanism of industrial growth, especially in Britain, Germany, France, and United States. Transmission of growth among regions and industries. Interaction between economic and social change.

Spring. Messrs. W. N. Parker and Potter.

241. ADVANCED PUBLIC FINANCE (3). Prerequisite, Economics 141 or equivalent.

Theory of public finance; criteria, procedures, instruments, proposals and operation. The relationship between fiscal and other public policy.

(Not offered in 1958-1959.) *Fall*. Mr. Ashby.

244. INDUSTRIAL COMBINATIONS (3). Prerequisite, Economics 145 or permission of the instructor.

The nature and significance of the policies of the principal forms of industrial combinations in domestic and foreign trade. The alternative courses of government action with respect to such combinations.

(1958-1959 and alternate years.) *Spring*. Mr. Heath.

246. TRANSPORTATION PROBLEMS AND POLICIES (3).

A course designed to develop an understanding of the major problems affecting the American transportation system and of the need for formulating effective transportation policies.

(Not offered in 1958-1959.) *Fall*. Mr. Blaine.

251, 252. HISTORY OF ECONOMIC THOUGHT (3 each).

Economics 251 deals with the Classical, Historical, and Socialist schools; Economics 252 covers the marginalists and Marshall, the history of the consumption function, and the history of business cycle theory.

Fall and spring. Mr. Heath.

261. INTERNATIONAL ECONOMICS (3). Prerequisite, permission of the instructor.

The theory of international values; comparative advantage and the gains from trade; alternative routes to adjustment in the balance of payments; capital movements.

Spring. Mr. Ingram.

262. THEORY OF INTERNATIONAL TRADE (3). Prerequisite, Economics 261 or equivalent.

Selected topics in the theory of international trade.

Spring. Mr. Ingram.

281. MONETARY THEORY (3).

Monetary systems in the light of theory and historical development. Evaluation of contemporary policies and reform proposals. Analysis of interrelationships between monetary factors and economic processes and phenomena.

(Not offered in 1958-1959.) *Fall*. Mr. Philbrook.

282. CENTRAL BANKING AND MONETARY POLICY (3). Prerequisite, Economics 81 or equivalent.

The objectives, structure, and functions of central banks, especially the Federal Reserve System. Central bank operations, formation and execution of monetary policy, and the impact and effectiveness of monetary action.

Spring. Mr. Keps.

285. ANALYSIS OF ECONOMIC FLUCTUATIONS (3).

Nature of economic fluctuations. Business cycle theory. Economic stabilization and growth.

Spring. Mr. M. W. Lee.

291. LABOR ECONOMICS (3). Prerequisite, Economics 191 or equivalent.

The economic implications of basic phenomena in the field of labor, including the demand for and supply of labor, wage theory, unemployment, the economics of reducing working hours, collective bargaining, and social insurance.

Spring. Mr. Wolf.

294. POLICIES AND PRACTICES IN LABOR DISPUTE SETTLEMENT (3).

Prerequisite, Economics 191 or equivalent.

A study of the theory and practice in the settlement of labor disputes. Attention will be given to grievance procedure, mediation, fact finding, and arbitration. Special consideration will be given to the economic implications of such procedures and the resultant effects upon the public interest.

(1959-1960 and alternate years.) *Spring*. Mr. Guthrie.

295. CASE STUDIES IN COMPARATIVE ECONOMIC SYSTEMS (3). Pre-

requisite, Economics 195.

Selected case studies in current proposals for reform in the economic system. Individual assignments are made for critical study and reports.

Spring. Messrs. Fein and Blackman.

296. SOVIET ECONOMIC PLANNING (3).

A study of the theory and practice of economic planning in the Soviet Union. Special attention is given to current methods of allocating resources and controlling economic activities and to the prospects for increasing the rationality of economic decision-making.

(1959-1960 and alternate years.)

Fall. Mr. Blackman.

297. SOVIET ECONOMIC GROWTH (3).

An evaluation of Soviet statistical data and methodology with reference to the measurement and analysis of the national product during the period of the Five-Year Plans. Emerging trends in factor efficiency and supply are examined as a basis for projecting future patterns and rates of growth.

(1959-1960 and alternate years.) *Spring*. Mr. Blackman.

335. SEMINAR IN ECONOMIC HISTORY (3).

Relation of economic history to economics; history of work in the field. Current problems and techniques of study and research.

Fall and spring. Messrs. W. N. Parker and Potter.

341. RESEARCH IN PUBLIC FINANCE (3). Prerequisite, permission of the instructor.

Open to qualified graduate students who wish to make intensive studies in particular fields of public finance. Conference hours subject to arrangement. Written reports are normally required.

Fall and spring.⁶ Mr. Ashby.

346. SEMINAR IN TRANSPORTATION (3). Prerequisite, permission of the instructor.

A course designed to permit selected graduate students to make an intensive study of specific problems in transportation.

Spring.⁶ Mr. Blaine.

351a-351b. SEMINAR IN ECONOMICS (3 each). Prerequisite, permission of the instructor.

Designed to give the advanced graduate student an opportunity to deal critically with special problems or areas of theoretical analysis beyond the general scope of Economics 251-252.

Fall and Spring.⁶ Messrs. Heath and Philbrook.

361. SEMINAR IN INTERNATIONAL ECONOMICS (3). Prerequisite, Economics 262 or equivalent.

A directed reading and research course.

(1959-1960 and alternate years.) *Spring*. Mr. Ingram.

6. Equivalent of three hours a week.

371. RESEARCH IN ECONOMIC STATISTICS (3). Prerequisite, permission of the instructor.

*Spring.*⁶ Mr. Cowden.

382. SEMINAR IN PRIVATE FINANCE (3). Prerequisite, permission of the instructor.

An advanced study of corporate financial practices and their impact upon society. Attention is given to the interrelationship between corporate financial policy and investment decisions, and the nature of the market for money capital and its relationship to security issuers and purchasers.

*Fall.*⁶ Messrs. Kreps and Floyd.

385. SEMINAR IN MONEY AND EMPLOYMENT (3). Prerequisite, permission of the instructor.

The advanced study of business cycles. The modern controversy over employment and wages, interest, and money; anti-depression policy.

*Spring.*⁶ Mr. Philbrook.

391. SEMINAR IN LABOR (3). Prerequisite, permission of the instructor.

This course offers mature students an opportunity to carry their investigations of significant subject matter beyond the limits of the formal course offerings.

*Fall and spring.*⁶ Messrs. Wolf and Guthrie.

399. SEMINAR (3). Prerequisite, permission of the instructor.

Individual research in a special field under direction of a member of the department.

*Fall and spring.*⁶

6. Equivalent of three hours a week.

SCHOOL OF EDUCATION

Professors: ARNOLD PERRY, ARTHUR MELVILLE JORDAN, J. MINOR GWYNN, ARNOLD KIMSEY KING, WILLIAM JOHN MCKEE,¹ GEORGE EDWARD SHEPARD, O. K. CORNWELL, GUY B. PHILLIPS, WILLIAM DECATUR PERRY, RICHARD ELMER JAMERSON, W. CARSON RYAN,² WILLIAM E. ROSENSTENGEL,³ WILLIAM HENRY PEACOCK, CARL F. BROWN, THELMA GWINN THURSTONE

Associate Professors: E. MARVIN ALLEN, CLYDE E. MULLIS, HENRY S. HOUSE, WALTER W. RABB, RUTH WHITE FINK, SAMUEL H. HOLTON, DONALD G. TARBET, JOHN B. CHASE, ROY E. SOMMERFELD, LUTHER R. TAFF

Assistant Professors: MARY FRANCES KELLAM, CARL S. BLYTH, RUTH I. PRICE, STACY KNIGHT EBERT, WILLIAM P. MATTHEWS, R. NEILL SCOTT, BEN E. FOUNTAIN, JR., ROBERT B. HUGHES, ANNIE LEE JONES, NEAL H. TRACY

Instructors: MURPHEY DALE RANSON, MICHAEL Z. RONMAN, FRANCES B. HOGAN, HAMMOND STRAYHORN, JAMES E. OWEN⁴

Lecturers: WILLIAM G. SLATTERY, CHARLES F. MILNER

Visiting Lecturers: JAMES F. ROGERS, E. S. JONES

Part-time Instructors: HELEN DUGAN ALLEN, SARAH CARAWAY, BEVERLEY SWAN, PAUL B. HOUNSHELL

Research Associates: GRACIA E. VAN DAFF, M. JOYCE HAYES, NINA W. PARSONS

Teaching Fellow: J. W. BATTEN

1. Professor, Emeritus.

2. Kenan Professor, Emeritus.

3. Died April 23, 1958.

4. Spring semester, 1959.

General Information

Students who plan to meet the requirements for a teaching certificate in Elementary Education or Secondary Education are under the joint direction of the School of Education and the respective subject matter departments.

Students interested in preparing to teach should consult the Dean of the School of Education, who will give information about the requirements in various teaching fields. Students are admitted to the School of Education for professional work at the beginning of the junior year.

The professional work in preparation for teaching must be taken over a two-year period. For that reason juniors should begin their work promptly in order to meet the requirements.

Courses for Undergraduates

NOTE: For undergraduate courses in physical education see the Department of Physical Education.

41. INTRODUCTION TO THE STUDY OF EDUCATION (3). (*The School, The Pupil, and Teaching*). This course or its equivalent is required of all prospective teachers.

This is an orientation course designed to help develop an understanding of the philosophy and procedures of public education.

Fall and spring. Messrs. Phillips, Holton, Tarbet, Taff, Matthews, Scott, Fountain, Tracy, and Mrs. Allen.

61. METHODS AND MATERIALS IN TEACHING IN ELEMENTARY GRADES (*Each semester*); 63. HEALTH AND PHYSICAL EDUCATION (*Each*); 75. INSTRUMENTAL MUSIC (*Fall*); 76. CHORAL MUSIC (*Fall*); 77. ART (*Spring*); 81. ENGLISH (*Each*); 83f. FRENCH (*Spring*); 83s. SPANISH (*Spring*); 85. SOCIAL STUDIES (*Each*); 87. LATIN (*Spring*); 89. MATHEMATICS (*Fall*); 91. SCIENCE (*Spring*); 93. PUBLIC HEALTH (*Spring*) (3). (*Teaching*). Staff.

These courses are taught six hours per week during the first half of the semester indicated. They yield course or hour credit only for the degrees granted by the School of Education.

62. STUDENT TEACHING IN ELEMENTARY GRADES (*Each semester*); 64. HEALTH AND PHYSICAL EDUCATION (*Each*); 78. INSTRUMENTAL MUSIC (*Fall*); 79. CHORAL MUSIC (*Fall*); 80. ART (*Spring*); 82. ENGLISH (*Each*); 84f. FRENCH (*Spring*); 84s. SPANISH (*Spring*); 86. SOCIAL STUDIES (*Each*); 88. LATIN (*Spring*); 90. MATHEMATICS (*Fall*); 92. SCIENCE (*Spring*); 94. PUBLIC HEALTH (*Spring*) (9). (*School, Pupil, Teaching*). Staff.

Student teaching is conducted on a full-time basis during the second half of the semester, which enables the student to participate in all aspects of public school life. Student teaching is carried out under University supervision in cooperating public schools in the state.

These courses yield course or hour credit only for degrees granted by the School of Education.

Laboratory fee, \$20.00.

71. EDUCATIONAL PSYCHOLOGY (3). (*The Pupil*). Required of all prospective teachers.

A course combining the most significant aspects of general and educational psychology as they relate to the educational process.

Fall and spring. Fee, \$2.00. Messrs. Jordan, Sommerfeld, Hughes, Scott, Matthews, Taff, and Mrs. Thurstone.

72a. CHILD GROWTH AND DEVELOPMENT (3). (*The Pupil*). Required of all prospective elementary school teachers.

This course meets six hours a week during the first half of the semester in which student teaching is done.

Fall and spring. Messrs. Scott, Matthews, Hughes, Sommerfeld, Mrs. Ebert, and Miss Jones.

72b. ADOLESCENT GROWTH AND DEVELOPMENT (3). (*The Pupil*).

Required of all prospective secondary school teachers. To be taken during the first half of the semester in which student teaching is done.

Each semester. Messrs. Scott, Matthews, Taff, Hughes, and Sommerfeld.

74. THE ELEMENTARY SCHOOL (3). (*The School*).

This course meets six hours each week during the first half of the semester in which student teaching is done.

This course is designed to give the student an understanding of the purposes and organization of the elementary school. The work of the school is studied in relation to the various community agencies concerned with the education of the child.

Fall and spring. Mr. Brown, Mrs. Ebert, and Miss Jones.

93. SURVEY AND EVALUATION OF BOOKS AND RELATED MATERIALS FOR CHILDREN⁵ (3).

Fall. Miss Kalp (of the School of Library Science).

99. THE SECONDARY SCHOOL (3). (*The School*). Required of all prospective secondary school teachers.

This course meets six days each week during the first half of the semester in which student teaching is done.

A course designed to assist the prospective teacher in developing an understanding of the functions and organization of the American secondary school. Examination is made of the relationship between the school and each of the other social institutions concerned with the education of the adolescent. Actual and projected school practices are evaluated. Open to School of Education students only.

Fall and spring. Messrs. Gwynn, Holton, Tarbet, Chase, King, Fountain, Taff, and Tracy.

Courses for Graduates and Advanced Undergraduates

Undergraduate students who are not in the School of Education must get the permission of the dean to enroll in these courses.

Attention is called to courses listed under psychology, sociology, physical education, dramatic art, and other departments as of particular importance in present-day preparation of teachers and educational administrators. For advanced courses in physical education see the Department of Physical Education.

For graduate courses for teachers and school administrators offered on Saturday at Chapel Hill see separate announcements.

NOTE: Most of the graduate courses in education are also available in one or both of the two terms of the summer session. See the catalogue of the summer session.

5. A special course for elementary school teachers.

101. EDUCATIONAL ADMINISTRATION (3).
Fall. Messrs. Phillips, Fountain, and Tracy.
105. GUIDANCE IN THE SCHOOL (3).
Fall. Messrs. W. D. Perry, Tarbet, Taff, Matthews, and Scott.
110. PHILOSOPHY OF MODERN EDUCATION (3).
Fall. Messrs. Holton and King.
120. PRINCIPLES OF PHYSICAL EDUCATION (3). See Physical Education 120.
121. ADMINISTRATION OF PHYSICAL EDUCATION (3). See Physical Education 121.
132. FUNCTION AND STRUCTURE OF DISTRIBUTIVE EDUCATION (3).
Summer session only. Mr. Slattery.
133. SUPERVISION OF THE COOPERATIVE DISTRIBUTIVE EDUCATION PROGRAM (3).
Summer session only. Mr. Slattery.
135. AUDIO-VISUAL INSTRUCTION: TECHNIQUES AND MATERIALS (3).
Spring. Materials fee, \$2.00. Messrs. Milner and Tarbet.
142. EUROPEAN FOUNDATIONS OF MODERN EDUCATION (3).
Fall. Mr. King.
143. SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES (History 170) (3).
Spring. Messrs. King and Holton.
144. COMMUNITY EDUCATION (3).
 (Not offered in 1958-1959.) Messrs. A. Perry and Fountain.
146. CONTEMPORARY ISSUES AND TRENDS IN EDUCATION (3).
Spring. Messrs. King, Gwynn, A. Perry, Holton, and Fountain.
147. HIGHER EDUCATION IN THE UNITED STATES (3). Prerequisite, Education 142, or Education 143, or equivalent.
 (Not offered in 1959-1960.) Messrs. King and Gwynn.
152. THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3).
Fall. Messrs. Brown, A. Perry, and Miss Jones.
154. THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3).
Spring. Messrs. Holton, Brown, A. Perry, and Miss Jones.
155. NATURAL SCIENCE IN THE ELEMENTARY SCHOOL (3).
Spring. Messrs. Chase and Brown.
156. ARITHMETIC IN THE ELEMENTARY SCHOOL (3).
Spring. Messrs. Brown, Perry, and Miss Jones.
160. CURRICULUM CONSTRUCTION (3).
 Open to seniors and graduate students with 15 semester hours of credit in education.
Fall and spring. Messrs. Gwynn, Tarbet, Chase, and Tracy.
161. ELEMENTARY EDUCATION IN THE UNITED STATES (3).
Fall. Messrs. Brown, Perry, Mrs. Ebert, and Miss Jones.
165. CORRECTIVE READING (3). Prerequisite, Education 152.
Spring. Messrs. Brown, Sommerfeld, and Miss Jones.

171. GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD (3).
Child and adolescent development.
Fall and spring. Messrs. Jordan, Sommerfeld, Scott, Matthews, Hughes, and Mrs. Thurstone.
172. THE PROBLEMS OF MALADJUSTMENT AMONG CHILDREN (3).
Spring. Messrs. Jordan, W. D. Perry, and Hughes.
174. USE AND INTERPRETATION OF EDUCATIONAL TESTS AND MEASUREMENTS (3).
Fall. Messrs. Jordan, Sommerfeld, Hughes, and Mrs. Thurstone.
175. EXTRACURRICULAR ACTIVITIES (3).
Summer session only. Messrs. Tarbet and Tracy.
176. MENTAL HYGIENE IN TEACHING (3). Prerequisites, introductory courses in psychology and education.
Spring. Messrs. Jordan, Matthews, Scott, Sommerfeld, and Taff.
180. INTRODUCTION TO THE STUDY OF EXCEPTIONAL CHILDREN (3).
Fall. Mr. Hughes and Mrs. Thurstone.
181. TEACHING THE MENTALLY HANDICAPPED CHILD (3).
Spring. Mr. Hughes and Mrs. Thurstone.
182. THE GIFTED CHILD IN SCHOOL AND SOCIETY (3).
Summer session only. Mr. Hughes and Mrs. Thurstone.
183. PRINCIPLES OF SPEECH CORRECTION (3).
Summer session only. Mr. Hughes and Miss Morgan.
184. CLINICAL PROCEDURES IN SPEECH CORRECTION (3).
Summer session only. Mr. Hughes and Miss Morgan.
196. THE JUNIOR HIGH SCHOOL (3).
Fall. Messrs. Gwynn, Holton, and Tarbet.
197. SOCIAL POLICY AND EDUCATION (3).
Spring. Messrs. King and Gwynn.
199. SECONDARY EDUCATION IN THE UNITED STATES (3).
Fall and spring. Messrs. King, Gwynn, Tarbet, Holton, Chase, Fountain, and Tracy.

Courses for Graduates

201. PROCEDURES IN EDUCATIONAL RESEARCH (3).
Spring. Messrs. King, Hughes, Tracy, and Mrs. Thurstone.
203. STATISTICAL METHODS IN EDUCATION (3).
Spring. Messrs. Jordan, Cornwell, Hughes, and Tracy.
204. TECHNIQUES IN EDUCATIONAL LEADERSHIP (3).
Fall. Messrs. Phillips and Tracy.
205. TECHNIQUES IN COUNSELING (3). Prerequisites, appropriate psychology courses and Education 105.
Spring. Messrs. W. D. Perry, Taff, and Scott.
206. THE INTERPRETATION AND USE OF EDUCATIONAL AND OCCUPATIONAL MATERIALS (3). Prerequisites, practical experience and at least two years of work in education and psychology.
Fall. Messrs. W. D. Perry and Taff.

207. STUDENT PERSONNEL ADMINISTRATION (3). Prerequisites, appropriate psychology courses and Education 205.

(Not offered in 1959-1960.) Messrs. W. D. Perry, Taff, and Scott.

208. STATE AND COUNTY SCHOOL ORGANIZATION (3). Prerequisite, Education 101 or equivalent.

Messrs. Phillips and Tracy.

209. BUSINESS MANAGEMENT AND SCHOOL FINANCE (3). Prerequisite, Education 101 or equivalent.

Spring. Messrs. Phillips and Tracy.

210. MANAGEMENT OF SCHOOL PLANT AND EQUIPMENT (3). Prerequisite, Education 101 or equivalent.

Spring. Messrs. Phillips and Tracy.

211. SUPERVISED PRACTICUM IN GUIDANCE (3). Prerequisites, Education 105, 205, 274, or permission of the instructor.

Spring. Messrs. W. D. Perry and Taff.

224. (See under Department of Physical Education.)

225. (See under Department of Physical Education.)

230. TECHNIQUES OF LEADERSHIP DEVELOPMENT IN DISTRIBUTION (3).

Summer session only. Mr. Slattery.

231. SUPERVISION OF THE ADULT PROGRAM IN DISTRIBUTIVE EDUCATION (3).

Summer session only. Mr. Slattery.

245. COMPARATIVE EDUCATION (3).

Summer session only. Messrs. Holton and King.

265. INVESTIGATIONS IN READING (3).

Spring. Messrs. Brown, Sommerfeld, and Miss Jones.

267ab. EDUCATION WORKSHOP (3 or 6).

Open by special permission to a limited number of qualified graduate students who have specific interests or problems that are adapted to staff and local resources available.

Graduate staff and visiting faculty.

271. PROBLEMS IN EDUCATIONAL PSYCHOLOGY I (3).

Individual differences and problems of conduct.

Fall. Messrs. Jordan, Sommerfeld, and Mrs. Thurstone.

272. PROBLEMS IN EDUCATIONAL PSYCHOLOGY II (3). Prerequisite, one and preferably two courses in educational and developmental psychology.

Psychology of learning (theoretical aspects) and psychology of learning (practical applications).

Spring. Messrs. Jordan, Sommerfeld, and Mrs. Thurstone.

273. MENTAL MEASUREMENTS (3). Prerequisite, one course in educational psychology or a course in general psychology.

Mr. Jordan and Mrs. Thurstone.

274. TECHNIQUES IN THE ANALYSIS OF THE INDIVIDUAL (3). Prerequisite, Education 105.

The individual inventory and the use of tests in the analysis of the individual. The purchase of tests may be required.

Spring. Messrs. W. D. Perry, Taff, Scott, and Sommerfeld.

275. ADMINISTRATIVE ASPECTS OF THE GUIDANCE PROGRAM (3). Prerequisite, Education 105.
Messrs. Tarbet and W. D. Perry.
277. ADVANCED THEORY AND PRACTICE IN EDUCATING THE SPEECH HANDICAPPED (3).
285. INVESTIGATIONS AND TRENDS IN TEACHING THE SOCIAL STUDIES (3).
(Not offered in 1959-1960.) Mr. Holton.
291. INVESTIGATIONS AND TRENDS IN TEACHING NATURAL SCIENCE (3).
Fall. Mr. Chase.
296. SCHOOL ORGANIZATION AND ADMINISTRATION (The Elementary and Secondary Principalship) (4).
Spring. Messrs. Gwynn, A. Perry, Phillips, Tarbet, Fountain, and Tracy.
298. SUPERVISION OF INSTRUCTION (3).
Spring. Messrs. A. Perry, Gwynn, and Phillips.
303. PROBLEMS IN EDUCATIONAL ADMINISTRATION (3 or more). Prerequisites, Education 101 or equivalent and one other course in educational administration.
Fall and spring. Messrs. Phillips, Tracy, A. Perry, and Fountain.
304. PROBLEMS IN EDUCATIONAL MEASUREMENT (3 or more). Prerequisite, Education 174.
Fall and spring. Messrs. Jordan, Sommerfeld, and Mrs. Thurstone.
305. PROBLEMS IN GUIDANCE AND PERSONNEL WORK (3 or more). Prerequisite, two graduate courses in guidance.
Fall and spring. Messrs. W. D. Perry and Taff.
341. FOUNDATIONS OF MODERN EDUCATION (3 or more). Prerequisites, Education 142 and 143 or equivalent.
(Not offered in 1959-1960.) Messrs. Holton and King.
350. PROBLEMS IN ELEMENTARY EDUCATION (3 or more). Prerequisites, two courses in graduate education.
Fall and spring. Messrs. A. Perry, Brown, Phillips, and Miss Jones.
360. PROBLEMS IN THE CURRICULUM (3 or more). Prerequisites, two courses in graduate education.
Fall and spring. Messrs. Gwynn, Chase, and Holton.
375. THESIS COURSE (3 or more).
Fall and spring. Members of the graduate faculty.
376. SEMINAR IN EDUCATION (3). Prerequisites, two courses in graduate education.
Fall and spring. Members of the graduate faculty.
398. PROBLEMS IN SECONDARY EDUCATION (3 or more). Prerequisites, two graduate courses in secondary education.
Fall and spring. Messrs. Gwynn, Holton, Chase, Tarbet, and Tracy.

DEPARTMENT OF ENGLISH

Professors: C. H. HOLMAN, G. C. TAYLOR,¹ A. P. HUDSON, DOUGALD MACMILLAN, A. C. HOWELL, R. P. BOND, RAYMOND ADAMS, W. A. OLSEN, H. K. RUSSELL, WILLIAM WELLS, R. B. SHARPE, C. P. LYONS, N. E. ELIASON, E. W. TALBERT, J. O. BAILEY, N. W. MATTIS, R. B. HOUSE, G. F. HORNER

Associate Professors: E. H. HARTSELL, L. A. COTTEN, G. M. HARPER, J. R. GASKIN, R. E. KASKE

Assistant Professors: R. B. VOITTE, P. G. PHIALAS, S. G. BARNES, O. B. HARDISON, JR., W. A. COLES, LUCIA MORGAN

Lecturer: JESSIE REHDER

Visiting Lecturer: FRANCES GRAY PATTON²

Instructors: R. P. DOUTHIT, W. B. FLEISCHMAN, D. W. PATTERSON, C. E. EDGE, T. Y. GREET, J. B. SCHOLES

Part-time Instructors: B. B. ADAMS, R. E. AYCOCK, D. L. BALL, P. E. BLANK, L. J. CLIPPER, G. R. DAVIS, JO JUNE DEWEESE, J. B. EASLEY, R. B. EATON, H. A. ELLIS, W. J. FREE, H. W. FULWEILER, J. W. GARDNER, P. M. GRIFFITH, W. E. HESTER, S. P. HINES, E. H. JOHANSSON, F. E. KEARNS, LORRAINE R. LIVELY, H. R. MCKNIGHT, J. R. MCQUISTON, MILDRED MARLETTE, J. D. MASON, R. W. MECHLING, ELIZABETH MOORE, J. B. MOORE, DAVID ORR, MARGARET RAYNAL, L. T. REED, R. C. REYNOLDS, F. C. ROBINSON, F. DAVID SANDERS, J. R. SELIG, H. F. WEST, J. H. WILSON

Teaching Fellows: MARTHA BURTON, LARRY S. CHAMPION, MARION B. FOLSOM

Graduate Assistants: C. L. BLENKNER, E. W. HUGUELET, ELEANOR R. JESTER, R. F. MARDIS, MARGARET RAYNAL, HERBERT SHELLANS, CYNTHIA WOGAN

Courses for Undergraduates

Prerequisites: English 1 and 2 are prerequisite to all advanced courses offered by the English department. Juniors will not be admitted to courses for advanced undergraduates except by permission.

Majors in English in the College of Arts and Sciences: A student choosing English as his major field should take (a) English 58; (b) two of the following: English 52, 54, 60, 64, 66; (c) one of the following: English 72, 73, 81; (d) one of the following: English 36, 38, 40, 41, 43, 45, 63, 147; (e) one to three courses chosen as free electives from the advanced courses offered by the department (courses numbered from 30 to 199, with the exception of 32 and 33). In accordance with University regulations a student must have a grade of C or better in at least eighteen semester hours in the major.

Majors in English in the School of Education: A student who desires to secure a certificate in the public high schools with a major in English should consult the School of Education for the courses in education and for the minor. The English requirements are: (a) English 58; (b) English 36; (c) English 81 or 82; (d) one of the following: Speech 40, 41, 44; (e) one of the following: English 43, 45, 52, 64, 66; (f) one of the following: English 40, 41, 72, 73, 74, 92, 93; (g) one elective in English. In accordance with University

1. Kenan Professor, Emeritus.

2. Fall semester, 1958-1959.

regulations a student must have a grade of C or better in at least eighteen semester hours in the major.

Minors in English in the School of Education: Students who choose a minor program in English will take: (a) English 58; (b) English 38; (c) English 81 or 82; (d) one of the following: English 66, 72, 73, 74, or by permission an elective in English.

Honors in English and Honors in Writing: See Division of the Humanities, p. 154.

NOTE: The English Department has renumbered its course offerings. In the current listing, the old number for the course is included in parentheses after the new number. Courses in Speech follow immediately after English 99. Courses for graduate students follow the Speech courses.

1 (1). ENGLISH COMPOSITION AND RHETORIC (3).

Required of all students except those qualifying by placement test for English 2.

Fall and spring. Mr. Horner, *Director*, and staff.

2 (2). ENGLISH COMPOSITION AND RHETORIC (3).

Required of all students.

Fall and spring. Mr. Horner, *Director*, and staff.

21 (21). ENGLISH LITERATURE (3). Prerequisite, English 2.

Substantial readings in Chaucer, Shakespeare, and Milton. Required of all students in the General College.

Fall and spring. Mr. Horner, *Director*, and staff.

22 (31). ENGLISH LITERATURE (3). Sophomore elective. Prerequisite, English 2.

Substantial readings in Swift, Wordsworth, Browning, and Shaw.

Fall and spring. Mr. Horner, *Director*, and staff.

23 (32). ENGLISH AND AMERICAN FICTION (3). Sophomore elective. Prerequisite, English 2.

Readings in selected novels and short stories.

Fall and spring. Mr. Horner, *Director*, and staff.

26 (33). ENGLISH AND AMERICAN LITERATURE (3). Sophomore elective. Prerequisite, English 2.

Selected readings in contemporary British and American literature.

Fall and spring. Mr. Horner, *Director*, and staff.

30 (52). ADVANCED COMPOSITION: THE TECHNIQUE OF EXPOSITION (3).

Expository writing for students desiring practice in the organization of material.

Fall and spring. Mr. Bailey.

32 (51). ADVANCED COMPOSITION: BUSINESS WRITING (3).

Primarily for business administration and pharmacy students. Emphasis on the letter as a medium of practical written communication. This course cannot be counted toward an English major.

Fall, Messrs. Hartsell and Gardner; *spring*, Messrs. Barnes, Voitle, and Gardner.

33 (59). SCIENTIFIC WRITING (3). Prerequisite, permission of the instructor.

To meet the needs of students in the sciences, through practice in writing explanations, descriptions, business letters, professional papers, and reports. This course cannot be counted toward an English major.

Fall, Mr. Howell; *spring*, Mr. Patterson.

34 (53). CREATIVE WRITING I: INTRODUCTION TO THE SHORT STORY (3). Prerequisite, permission of the instructor.

Class discussion of short stories, of longer fiction, and of general literary principles; technical training in the writing of original short stories.

Fall. Mrs. Patton.

35 (54). CREATIVE WRITING II (3). Prerequisite, permission of the instructor.

An advanced course in imaginative writing for students who have had some previous experience in this field.

Spring. Miss Rehder.

36 (96). ENGLISH GRAMMAR (3).

A study of modern English grammar with special attention to such current problems as the confusion of grammatical terminology, attacks on traditional rules, conflict between prescriptive and descriptive grammar. The course is designed especially for prospective English teachers, but others may take it.

Fall and spring. Mr. Gaskin.

38 (95). THE ENGLISH LANGUAGE (3).

Present-day English, British and American, standard and dialectal—its historical background and development. The language as a whole is considered, i.e. vocabulary, pronunciation, spelling, etc., grammar is treated only incidentally.

Fall. Mr. Gaskin.

40 (90). STUDIES IN POETRY AND CRITICISM (3).

Exploration of the significance of poetry for thought and human experience. Some consideration of other literary types, principally the short story.

Spring. Mr. Lyons.

41 (94). PRINCIPLES OF LITERARY ART (3).

A study of the theories of literature through their application to specific English masterpieces.

Fall. Mr. Bond.

43 (91). THE ENGLISH NOVEL (3).

The English novel in the eighteenth and nineteenth centuries.

Fall, Mr. Russell; *spring*, Messrs. Barnes and Edge.

45 (93). THE ENGLISH DRAMA (3).

The English drama from the beginnings to 1900.

Fall. Mr. MacMillan.

52 (70). CHAUCER (3).

The development of Chaucer as a man and as an artist as revealed in certain minor poems, the *Troilus*, and most of *The Canterbury Tales*.

Fall, Mr. Kaske; *spring*, Mr. Eliason.

54 (74). ENGLISH LITERATURE OF THE RENAISSANCE (3).

Poetry and prose of representative authors, including More, Wyatt, Sidney, Spenser, Raleigh, Bacon, and Donne; with selected plays of Marlowe, Dekker, and Johnson.

Fall, Mr. Wells; *spring*, Mr. Phialas.

58 (50). SHAKESPEARE (3).

Study of about twenty representative comedies, histories, and tragedies.
Fall, Messrs. Lyons and Phialas; *spring*, Messrs. Talbert and Sharpe.

60. ENGLISH LITERATURE, 1616-1700 (3).

Prose and poetry of the seventeenth century, excluding Milton.
(Not offered in 1958-1959.)

61 (114). ENGLISH DRAMA, 1600-1642 (3).

Jacobean and Caroline drama, with emphasis on Jonson, Chapman, Webster, Beaumont, Fletcher, Massinger, and Ford.
Spring. Mr. Sharpe.

63 (87). THE LITERARY ASPECTS OF THE BIBLE (3).

The Old Testament and the New Testament will be taken up in alternate years—Old Testament, 1959; New Testament, 1960.
Spring. Mr. Howell.

64 (75). MILTON (3).

The works of Milton studied in the light of the life, times, and culture of the poet.
Fall, Messrs. Voitle and Hardison; *spring*, Messrs. Wells and Voitle.

66 (83). PROSE AND POETRY OF THE CLASSICAL PERIOD (3).

Addison, Steele, Swift, Pope, Johnson, Boswell, Gray, and Cowper.
Spring. Mr. Bond.

72 (84). THE CHIEF ROMANTIC POETS (3).

Wordsworth, Coleridge, Byron, Shelley, and Keats.
Fall, Mr. Hudson; *spring*, Mr. Hartsell.

73 (88). VICTORIAN LITERATURE (3).

Major English writers, 1832-1890.
Fall. Mr. Cotten; *spring*, Mr. Bailey.

78 (79). ENGLISH LITERATURE, 1890-1920 (3).

Hardy, Henley, Housman, Kipling, Wilde, Shaw, Conrad, Galsworthy, and the Irish Revival.
Fall, Mr. Barnes; *spring*, Messrs. Cotten and Coles.

81 (81). AMERICAN LITERATURE (3).

Major authors from the beginning to 1890.
Fall and spring. Mr. Adams.

82 (82). AMERICAN LITERATURE (3).

Major authors from 1890 to the present.
Fall, Messrs. Harper and Patterson; *spring*, Messrs. Adams and Patterson.

83 (85). THE AMERICAN NOVEL (3).

Representative American novels from 1850 to the present.
Fall and spring. Mr. Horner.

92 (98). RECENT ENGLISH AND AMERICAN POETRY (3).

A study of the poetry written in English since 1920.
Fall, Mr. Cotten; *spring*, Mr. Harper.

93 (97). RECENT ENGLISH AND AMERICAN FICTION (3).

A study of the novel and short story since 1920.
Fall, Messrs. Russell and Greet; *spring*, Mr. Russell and Miss Rehder.

97-98 (72-73). COURSE FOR HONORS (6). See the Program for Honors Work in the Division of the Humanities.

Reading and the preparation of an essay under the direction of departmental advisers.

99 (99). HONORS IN WRITING (3).

See the interdepartmental Program for Honors in Writing, College of Arts and Sciences, Division of the Humanities.

Courses in Speech

40 (40). VOICE AND DICTION (3).

Designed to establish good habits of speech by study of principles and analysis of the individual's voice, articulation, and pronunciation. Lectures, discussions, recordings, drill sessions, and conferences.

Fall, Miss Morgan; *spring*, Miss Morgan and Mr. Mattis. *Laboratory fee*, \$1.50.

41 (41). ORAL INTERPRETATION OF LITERATURE (3).

Emphasis on understanding and appreciation as preparation for oral reading. Vocal and articulatory weaknesses receive attention, but systematic training in the mechanics of speech is reserved for Speech 40.

Fall and spring. *Laboratory fee*, \$1.50. Mr. Mattis.

44 (44). PUBLIC SPEAKING (3).

Composition and delivery of original speeches. Consideration of content, organization, style, delivery, and adaptation to the audience. Recordings and conferences.

Fall and spring. *Laboratory fee*, \$1.50. Messrs. Olsen, Mattis, Douthit, and Mechling.

50 (55). ADVANCED VOICE AND DICTION (3). Prerequisite, Speech 40 or permission of the instructor.

A continuation of Speech 40, with close adaptation to the individual's needs. Detailed study of phonetics. Practice in oral reading, public speaking, and dramatic interpretation. Recordings, drills, and conferences.

Spring. *Laboratory fee*, \$1.50. Miss Morgan.

54 (56). ADVANCED PUBLIC SPEAKING (3). Prerequisite, one course in Speech or permission of the instructor.

A continuation of Speech 44 (English 44). Composition and delivery of original speeches, including speeches for special occasions. Study of model speeches. Brief attention to discussion techniques and parliamentary procedure.

Fall. *Laboratory fee*, \$1.50. Mr. Olsen.

Courses for Graduates and Advanced Undergraduates

NOTE: Except by permission juniors will not be admitted to these courses. Course numbers followed by *s* denote courses offered in the summer only.

130s (154). CREATIVE WRITING IN PROSE (3).

136 (170). MODERN ENGLISH (3).

A study of modern English grammar and problems in teaching it.

Fall. Mr. Eliason.

140s (104). INTERPRETATION OF LITERATURE (3).

141 (163). LITERARY CRITICISM (3).

The principles which have animated classical, romantic, and realistic literature.

Fall. Mr. Bond.

147 (167). THE ENGLISH BALLAD (3).

English and Scottish popular ballads and their survival in America, particularly in North Carolina.

Spring. Mr. Hudson.

148 (185). INTRODUCTION TO FOLKLORE (Folklore 185) (3).

Fall. Mr. Hudson.

152s (103). CHAUCER (3).

154s (111). ENGLISH LITERATURE OF THE RENAISSANCE (3).

155 (113). ENGLISH DRAMA TO 1600 (3).

English drama in the sixteenth century, with preliminary consideration of the medieval religious drama.

Fall. Mr. Talbert.

158s (115). SHAKESPEARE (3).

164s (125). MILTON (3).

165 (133). RESTORATION AND EIGHTEENTH-CENTURY DRAMA (3).

A study of the drama from 1660 to 1780.

(Not offered in 1958-1959.)

166s (131). ENGLISH LITERATURE, 1700-1780 (3).

172s (141). THE CHIEF ROMANTIC POETS (3).

173s (147). MAJOR FIGURES IN VICTORIAN LITERATURE (3).

175 (148). NINETEENTH CENTURY DRAMA, ENGLISH AND AMERICAN (3).

A survey of dramatic movements and writers from 1800 to 1900.

Spring. Mr. Bailey.

183s (155). THE AMERICAN NOVEL (3).

188 (153). SOUTHERN AMERICAN LITERATURE (3).

(Not offered in 1958-1959.)

193s (197). BRITISH AND AMERICAN LITERATURE OF THE TWENTIETH CENTURY (3).

195 (164). ENGLISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (3).

A survey of dramatic movements and writers from 1900 to the present.

Fall. Mr. Sharpe.

Courses for Graduates

237 (101). OLD ENGLISH GRAMMAR AND READINGS (3).

Primarily a linguistic course in Old English grammar, but time is devoted to surveying the prose of the period.

Fall. Mr. Eliason.

238 (204). HISTORY OF THE ENGLISH LANGUAGE (3). Prerequisite, English 237 (101) or permission of the instructor.

For students of linguistics and English literature; an intensive study of the language mainly from the historical point of view, but other approaches are considered.

Spring. Mr. Eliason.

240 (297). INTERPRETATION OF LITERATURE (3).

The issues of theoretical and practical criticism in the understanding and interpretation of poetry; their significance in teaching and scholarship.

Spring. Mr. Lyons.

243 (265). THE ENGLISH NOVEL (3).

The English novel from the eighteenth century to the present.

Spring. Mr. Russell.

250 (201). STUDIES IN OLD ENGLISH LITERATURE: BEOWULF (3). Prerequisite, English 237 (101).

A continuation of English 237 (101), but with literary rather than linguistic emphasis. The whole body of Old English poetry is dealt with, *Beowulf* receiving special attention.

Spring. Mr. Eliason.

251 (202). MIDDLE ENGLISH LITERATURE (3).

The literature of the period in relation to its social, political, and religious background.

Fall. Mr. Kaske.

252 (208). CHAUCER (3).

A reading of Chaucer's works with attention to critical and historical problems involved in their interpretation.

Spring. Mr. Kaske.

254 (211). ENGLISH LITERATURE OF THE SIXTEENTH CENTURY (3).

A survey of the literature of the Elizabethan period, exclusive of the drama.

Spring. Mr. Wells.

258 (231). SHAKESPEARE: THE EARLY PLAYS (3).

Emphasis on historical and critical problems presented by Shakespeare's works.

Fall. Mr. Talbert.

259 (232). SHAKESPEARE: THE LATE PLAYS (3).

Emphasis on historical and critical problems presented by Shakespeare's works.

Spring. Mr. Lyons.

260 (121). ENGLISH LITERATURE, 1616-1700 (3).

The non-dramatic literature of the period.

Fall. Mr. Howell.

261 (114). ENGLISH DRAMA, 1600-1642 (3).

Jacobean and Caroline drama, with emphasis on Jonson, Chapman, Webster, Beaumont, Fletcher, Massinger, and Ford.

Spring. Mr. Sharpe.

264 (225). MILTON (3).

An intensive study of Milton's works and thoughts.

Fall. Mr. Wells.

266 (226). ENGLISH LITERATURE, 1700-1780 (3).

The non-dramatic literature of the period.

Fall. Mr. Bond.

272 (241). ENGLISH LITERATURE, 1780-1832 (3).

A survey of the Romantic period, with special attention to the major poets.
Fall. Mr. Hudson.

273 (244). VICTORIAN LITERATURE: PROSE (3).

A survey of major English prose writers of the period.
(Not offered in 1958-1959.)

274 (243). VICTORIAN LITERATURE: POETRY (3).

A survey of major English poets of the period.
Spring. Mr. Cotten.

280 (282). EARLY AMERICAN LITERATURE (3).

A survey of the colonial, revolutionary, and early national periods, including Bryant, Irving, and Cooper.
(Not offered in 1958-1959.)

281 (283). AMERICAN LITERATURE, 1830-1855 (3). English 280 (282) precedes this survey, but is not prerequisite.

Poe, Hawthorne, Emerson, Thoreau, Lowell, and Transcendentalism.
Fall. Mr. Adams.

282 (284). AMERICAN LITERATURE, 1855-1900 (3).

Chief authors: Melville, Whitman, Lanier, Dickinson, Mark Twain, Howells, James; literary criticism; and the dominance of magazines.
Spring. Mr. Holman.

283 (285). THE AMERICAN NOVEL (3).

The American novel from its beginning to the twentieth century.
Fall. Mr. Holman.

291. RECENT ENGLISH AND AMERICAN CRITICISM (3).

A survey of the principal critical movements in England and America from Arnold to the present.
(Not offered in 1958-1959.)

298 (331). BIBLIOGRAPHY AND METHODOLOGY (3). Required of all candidates for the A.M. and Ph.D. degrees.

A course designed to aid students in preparing term papers, theses, and dissertations. Attention to bibliographical guides, problems of literary research, and standard scholarly forms and procedures.

Fall. Mr. MacMillan.

351 (307). SEMINAR: STUDIES IN MEDIEVAL LITERATURE (3).

Research in special problems in the literature of the Middle Ages.
(Not offered in 1958-1959.)

354 (310). SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (3).

Spring. Mr. Talbert.

360 (312). SEMINAR: STUDIES IN SEVENTEENTH-CENTURY LITERATURE (3).

(Not offered in 1958-1959.)

366 (313). SEMINAR: STUDIES IN EIGHTEENTH-CENTURY LITERATURE (3).

Spring. Mr. MacMillan.

372 (317). STUDIES IN NINETEENTH-CENTURY ROMANTICISM IN ENGLAND (3).

Two divisions in alternate years; Byron and Shelley problems; Wordsworth and Coleridge problems.

Spring. Mr. Hudson.

373 (320). STUDIES IN VICTORIAN LITERATURE (3).

Fall. Mr. Bailey.

381 (318). SEMINAR: STUDIES IN AMERICAN LITERATURE (3).

Spring. Mr. Horner.

390. SEMINAR: STUDIES IN TWENTIETH-CENTURY LITERATURE, ENGLISH AND AMERICAN (3).

(Not offered in 1958-1959.)

395 (325). SEMINAR: MODERN DRAMA (Dramatic Art 395) (3).

Fall. Messrs. Sharpe and Selden (of the Department of Dramatic Art).

397 (340). SPECIAL READINGS (3).

399 (341). SPECIAL RESEARCH (3).

Attention is called to the courses in philology and advanced literary study offered in the departments of Classics (Latin Epigraphy, Latin Paleography), Comparative Literature, Germanic Languages (Gothic, Old and Middle High German, Old Saxon, Old Norse, etc.), and Romance Languages (Old French, Provençal, Old Irish, Old Spanish, Dante, etc.).

See also the Curriculum in Comparative Linguistics.

CURRICULUM IN FOLKLORE

DEAN OF THE GRADUATE SCHOOL, *Chairman*

Professors: A. P. HUDSON, *Secretary*, J. P. GILLIN, U. T. HOLMES, G. B. JOHNSON, J. E. KELLER, J. G. KUNSTMANN, S. A. STOUDEMIRE

This curriculum assembles the facilities of the University for those who desire a major or minor for the master's degree or a doctoral minor in folklore with a major in some related department, and mobilizes the pertinent graduate instruction in this field now being offered in such departments as English, Germanic Languages, Music, Romance Languages, and Sociology and Anthropology. Students having had an undergraduate major in any of these departments, and having had the prerequisite courses, are eligible to take work in this curriculum with a view to becoming candidates for higher degrees.

Courses for Graduates and Advanced Undergraduates

(For descriptions of courses below offered by the departments of Music, Romance Languages, and Sociology and Anthropology, see listings under department headings.)

104. FOLK MUSIC (Music 104) (3).
Fall. Mr. Mason.
- CELTIC 105. OLD IRISH (3).
Spring. Mr. Holmes.
- CELTIC 106. OLD WELSH (3).
On demand. Mr. Holmes.
122. CULTURAL ANTHROPOLOGY (Anthropology 122) (Folklore 122) (3).
Fall. Materials fee, \$1.00. Mr. Johnson.
123. ANTHROPOLOGY OF RELIGION (Anthropology 123) (3).
(1959-1960 and alternate years.) *Fall.* Mr. Honigmann.
126. RACES AND PEOPLES OF AFRICA (Anthropology 126) (3). Prerequisite, Folklore 185.
Fall. Materials fee, \$1.00. Mr. Johnson.
127. NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (Anthropology 127) (3). Prerequisite, Folklore 185.
(1959-1960 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gillin.
128. FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (Folklore 128) (3). Prerequisite, Folklore 185.
(1958-1959 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gillin.
129. PEOPLES OF OCEANIA (Anthropology 129) (3). Prerequisite, Folklore 185.
(1959-1960 and alternate years.) *Fall.* Mr. Gulick.
132. NATIVE PEOPLES AND CULTURES OF SOUTH AMERICA (Anthropology 132) (3). Prerequisite, Folklore 185.
(1959-1960 and alternate years.) *Fall. Materials fee, \$1.00.* Mr. Gillin.
135. INTRODUCTION TO CULTURAL SYMBOLISM (Anthropology 135) (3). Prerequisite, Folklore 185.
Spring. Mr. Gulick.
147. THE ENGLISH BALLAD (English 147) (3).
English and Scottish popular ballads and their survivals, particularly in North Carolina.
Spring. Mr. Hudson.
185. INTRODUCTION TO FOLKLORE (Comparative Literature 185) (English 148) (Anthropology 185) (3).
Definition and examples of folklore in general and its various categories. Collection, classification, and analysis of folklore materials. Bibliography.
Fall. Mr. Hudson.
186. FOLK NARRATIVE (3).
Study of origin, development, and dissemination of myths, legends, and folktales, with a survey of their use in masterpieces of world literature.
Spring. Mr. Keller.

Courses for Graduates

(For descriptions of courses below offered by the departments of Music, Sociology and Anthropology, see listings under department headings.)

204. INTRODUCTION TO COMPARATIVE MUSICOLOGY¹ (Music 204) (Folklore 204) (3).

Spring, on demand. Mr. Mason.

210. FOLK SOCIOLOGY (Sociology 210) (Folklore 210) (3). Prerequisite, Folklore 185.

Fall. Mr. George Simpson.

230. RACE AND CULTURE CONTACTS (Anthropology 230) (Sociology 230) (Folklore 230) (3). Prerequisite, Folklore 185.

Spring. Mr. Johnson.

270. GENERAL INTRODUCTION TO GERMAN VOLKSKUNDE (German 270) (Folklore 270) (3). A reading knowledge of French is desirable but not necessary.

A survey of the fields of German literary and non-literary *Volkskunde* with special attention to *Märchen* and *Sprichwort*.

Fall. Mr. Kunstmann.

272. THE GERMAN VOLKSLIED (German 272) (Folklore 272) (3).

Survey of German *Volkslied* studies from the eighteenth century to the present; theories concerning the provenance of the *Volkslied*; special attention to the interrelation of *Volkslied* and *Kunstlied*.

Spring. Mr. Kunstmann.

342, 343. SEMINAR IN GERMAN VOLKSKUNDE (German 342, 343) (Folklore 342, 343) (3 each).

On demand. Mr. Kunstmann.

395. RESEARCH (3).

Research in a special field under the direction of members of the staff.

FRENCH

(See Romance Languages)

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Professors: ROY L. INGRAM, GERALD R. MACCARTHY, WILLIAM A. WHITE

Associate Professors: JOHN D. EYRE, J. SULLIVAN GIBSON, VIRGIL I. MANN, WALTER H. WHEELER

Assistant Professors: DAVID G. BASILE, JOSEPH ST. JEAN, JR.

Visiting Assistant Professor: E-AN ZEN

Instructor: SHERWIN H. COOPER

Teaching Fellow: SAMUEL O. BIRD, II

Graduate Assistants: ROLAND W. BATTEN, CHARLES E. BRETT, WILLIAM C. CHARLES, STEPHEN E. DAVENPORT, JACK E. FERREIRA, JOHN J. FISHER, LELAND A. FOURNIER, PAUL E. LOVINGOOD, JR., TINSLEY MACK, WILLARD L. MILLER, MARCUS B. MOREHEAD, EDWARD B. OUTLAND, HARRY F. SCHOEN, III, RICHARD G. SILVERNAIL, DONALD M. SKEAN, RANJIT TIRTHA, FRANK S. ZABLOCKI

1. Will be given as demand warrants.

GEOLOGY

The course requirements for the A.B. degree with major in geology are as follows: (1) six to eight courses in geology in addition to Geology 1 or 41, and Geology 42; (2) five to seven courses in allied sciences, including introductory chemistry and introductory physics (which may be taken in the General College); (3) five to seven courses outside the Division of the Natural Sciences. The A.B. program is not considered sufficient training for professional work in geology.

For B.S. in Geology the following are required:

GENERAL COLLEGE

English 1-2, 21	Mathematics 7-8 or 11-12 or 15-16
Foreign language 3, 4, 21 or 1-2, 3, 4 (French, German, Russian or Spanish)	Physics 24, 25
Chemistry 11-21	Physical Education 1, 2, 3, 4
Social Science 1-2	Hygiene 11
Geology 1 or 41, 42	Social Science elective
	Humanities elective
	One elective from the list of sophomore electives on page 148

JUNIOR YEAR

Geology 101, 103, 107, 110, 111, 128-129
 Mathematics 31, 32
 Two non-divisional electives

SENIOR YEAR

Four of the following: Geology 104, 105, 106, 108, 109
 Mathematics 33
 English 33
 One of the following: Chemistry 43, 51, 61; Zoology 41, 42; Physics 54, 104, 105, 106, 107
 Two non-divisional electives

GRADUATE DEGREES IN GEOLOGY

Unless taken as an undergraduate, Geology 104, 105, 106, 108, 109, are required of all candidates for graduate degrees in Geology.

Courses for Undergraduates

There are three courses in geology designed for undergraduates. Geology 1 is a one-course introduction to geology, covering selected parts of the material studied in the two courses, Geology 41 and Geology 42. All three are open to freshmen, and all three are taught at the same level of difficulty. Choice between them should be made, for the general student, on the basis of time to be devoted to this study. Students who plan to major in geology should take Geology 41 rather than Geology 1.

1. ELEMENTS OF GEOLOGY (4). Freshman elective.

Minerals, rocks, topographic maps, the development of land forms, geologic processes, history of the earth.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.50. Staff.

41. PHYSICAL GEOLOGY (4).

Nature and origin of minerals and rocks, volcanoes, earthquakes, interior of the earth, origin of mountains, soil development, subsurface water, coastal features, evolution of landscape, effects of glaciers, streams, and wind.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.50. Staff.

42. HISTORICAL GEOLOGY (4). Prerequisite, Geology 1 or 41.

The geologic history of the earth as recorded in the rocks and the fossils they contain. The development of life on earth from its ancient beginnings through prehistoric man.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.50. Messrs. Wheeler and St. Jean.

Courses for Graduates and Advanced Undergraduates

101. MINERALOGY (4). Prerequisites, Chemistry 11-21 and Geology 1 or 41, or special permission.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$10.00. Mr. Zen.

103. GEOLOGIC FIELD METHODS (4). Prerequisite, Mathematics 8.

Elementary drafting and surveying for geologists.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. Ingram.

104. GEOMORPHOLOGY (4). Prerequisites, Geology 1 or 41, general physics.

Three lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. White.

105. STRATIGRAPHY (4). Prerequisite, Geology 42.

Three lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. Wheeler.

106. INVERTEBRATE PALEONTOLOGY (4). Prerequisite, Geology 42.

Three lecture and two laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. St. Jean.

107. STRUCTURAL GEOLOGY (4). Prerequisites, Geology 103, general physics, or by permission.

Three lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. MacCarthy.

108. ECONOMIC GEOLOGY (3). Prerequisite, Geology 107.

A study of mineral deposits.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. Mann.

109. ELEMENTS OF GEOPHYSICS (4). Prerequisites, Geology 107, general physics.

Three lecture and two laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. MacCarthy.

110. IGNEOUS AND METAMORPHIC ROCKS (3). Prerequisites, Geology 42 and 101.

Mineralogy of the silicates and the megascopic description and the origin of the igneous and metamorphic rocks.

Two lecture and three laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. Zen.

111. SEDIMENTARY ROCKS (2). Prerequisites, Geology 42 and 101.

The megascopic description and the origin of the sedimentary rocks.

One lecture and two laboratory hours a week, spring. Laboratory fee, \$3.00. Mr. Ingram.

115. GEOLOGIC HISTORY OF THE VERTEBRATES (3). Prerequisites, Geology 42 or Zoology 41.

(1959-1960 and alternate years.) *Three lecture hours a week, fall. Materials fee, \$3.00.* Mr. Wheeler.

117. CLAY MINERALOGY (3). Prerequisites, Geology 110 and 111.

Includes x-ray diffraction studies of clay minerals.

(1958-1959 and alternate years.) *Two lecture and two laboratory hours a week, fall. Laboratory fee, \$10.00.* Mr. Ingram.

122. PHYSIOGRAPHY OF THE EASTERN UNITED STATES (3). Prerequisites, Geology 1 or 41, and 104, or by special permission.

(1959-1960 and alternate years.) *Three lecture hours a week, fall. Materials fee, \$3.50.* Mr. White.

123. PHYSIOGRAPHY OF THE WESTERN UNITED STATES (3). Prerequisites, Geology 1 or 41, and 104, or by special permission.

(1959-1960 and alternate years.) *Three lecture hours a week, spring. Materials fee, \$3.50.* Mr. White.

127. PETROLEUM GEOLOGY (3). Prerequisites, Geology 105, 107, and 111.

(1958-1959 and alternate years.) *Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.* Mr. Ingram.

128-129. SUMMER FIELD COURSES IN GEOLOGY (8). Prerequisites, Geology 101, 103, 110, 111.

Equivalent to eight hours a week for one semester. Staff.

144. OPTICAL MINERALOGY (5). Prerequisites, Geology 101, Physics 25.

Two lecture and six laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. Mann.

145. ELEMENTARY PETROGRAPHY AND PETROLOGY (5). Prerequisites, Geology 110, 144.

Two lecture and six laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. Zen.

166. VULCANOLOGY (3). Prerequisite, Geology 1 or 41.

This course serves as an introduction to vulcanism and related phenomena.

(1959-1960 and alternate years.) *Three lecture hours a week, fall. Materials fee, \$3.50.* Mr. MacCarthy.

167. EARTHQUAKES AND RELATED PHENOMENA (3). Prerequisite, Geology 1 or 41.

Earthquakes: their causes and effects; methods of investigation; the theory and operation of seismic recording devices.

(1959-1960 and alternate years.) *Three lecture hours a week, fall. Materials fee, \$3.00.* Mr. MacCarthy.

Courses for Graduates

221. ADVANCED STRUCTURAL GEOLOGY (4). Prerequisites, Geology 104, 105, 107.
(1958-1959 and alternate years.) *Three lecture and two laboratory hours a week, fall. Laboratory fee, \$5.00.* Mr. MacCarthy.
- 224, 225. ADVANCED ECONOMIC GEOLOGY (5 each). Prerequisites, Geology 105, 108, 111.
(1958-1959 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$3.50 each.* Mr. Mann.
- 244, 245. ADVANCED PETROLOGY (5 each). Prerequisites, Geology 144, 145.
(1959-1960 and alternate years.) Mr. Zen.
- 247, 248. SEDIMENTATION (5 each). Prerequisites, Geology 105, 106, 111.
(1959-1960 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$5.00 each.* Mr. Ingram.
261. APPLIED GEOPHYSICS (5). Prerequisites, Geology 109, Mathematics through calculus.
(Not offered in 1959-1960.) *Two lecture and six laboratory hours a week, spring. Laboratory fee, \$5.00.* Mr. MacCarthy.
265. THE PHYSICS OF THE EARTH: GEODYNAMICS (3 or 4). Prerequisite, Geology 107, or by special permission.
(1959-1960 and alternate years.) *Spring. Materials fee, \$3.50.* Mr. MacCarthy.
- 271, 272. ADVANCED GEOMORPHOLOGY (5 each). Prerequisites, Geology 104, 107.
(1958-1959 and alternate years.) *Fall and spring. Materials fee, \$2.00 each.* Mr. White.
- 281, 282. STRATIGRAPHY OF NORTH AMERICA (5 each). Prerequisites, Geology 105, 106.
(1958-1959 and alternate years.) *Fall and spring.* Mr. Wheeler.
284. PRINCIPLES OF PALEONTOLOGY (3). Prerequisites, Geology 106, Zoology 42.
(1959-1960 and alternate years.) *Three lecture hours a week, spring.* Mr. St. Jean.
- 285, 286. ADVANCED INVERTEBRATE PALEONTOLOGY (5 each). Prerequisite, Geology 106.
(1959-1960 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$5.00.* Mr. St. Jean.
- 288, 289. MICROPALAEONTOLOGY (5 each). Prerequisite, Geology 106.
(1958-1959 and alternate years.) *Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$5.00.* Mr. St. Jean.
301. SEMINAR (1 or more).

Research Courses

These courses are intended for applicants for advanced degrees. Laboratory work and conferences with the professor in charge of the work. Work in each of these courses may be continued under the same number with sub-letter designations.

- 321. RESEARCH IN STRUCTURAL GEOLOGY (2 or more). Mr. MacCarthy.
- 329. RESEARCH IN ECONOMIC GEOLOGY (2 or more). Mr. Mann.
- 341. RESEARCH IN MINERALOGY (2 or more). Messrs. Mann and Zen.
- 348. RESEARCH IN SEDIMENTATION (2 or more). Mr. Ingram.
- 349. RESEARCH IN PETROLOGY (2 or more). Mr. Zen.
- 361. RESEARCH IN GEOPHYSICS (2 or more). Mr. MacCarthy.
- 371. RESEARCH IN GEOMORPHOLOGY (2 or more). Mr. White.
- 381. RESEARCH IN STRATIGRAPHY (2 or more). Mr. Wheeler.
- 389. RESEARCH IN PALEONTOLOGY (2 or more). Messrs. Wheeler and St. Jean.

GEOGRAPHY

For an A.B. with major in geography there are required, in addition to Geography 38 and Geology 1 or 41, six or seven courses in geography and six or seven courses in allied studies, selected with the approval of the chairman of the department. Six or seven courses must be taken outside the Division of Natural Sciences .

Geography 38 is recommended as preparation for all advanced geography courses.

Courses for Undergraduates

38. INTRODUCTION TO PHYSICAL GEOGRAPHY (4). Natural science credit.

A study of the physical basis of geography. Emphasis centers on the climatic environment as fundamental to an understanding of the distribution and activities of man.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Staff.

48. INTRODUCTION TO HUMAN GEOGRAPHY (3).

Geographical arrangement of population, settlements, agricultural and industrial land use and transportation in the world's major countries and regions.

Spring. Materials fee, \$2.00. Staff.

Courses for Graduates and Advanced Undergraduates

117. SOILS (3). Prerequisites, Geology 1 or 41, Chemistry 11-12, or permission of the instructor. Natural science credit.

A study of the nature and geographic distribution of the soils of the world, with special emphasis on southeastern United States.

Three hours of lecture a week, in addition to field work, fall. Materials fee, \$5.00. Mr. Gibson.

131. REGIONAL GEOGRAPHY OF THE SOUTH (3).

Spring. Materials fee, \$2.00. Mr. Gibson.

132. LAND UTILIZATION AND SOIL CONSERVATION (3). Prerequisites, Geography 38 and Geology 1 or 41.

Spring. Materials fee, \$2.00. Mr. Gibson.

151. URBAN GEOGRAPHY (3). Prerequisites, two courses in Geography or permission of the instructor.

The location, form, function, and world distribution of the various types of urban settlements.

Spring. Materials fee, \$2.00. Mr. Cooper.

152. ECONOMIC GEOGRAPHY (3).

A study of the distribution, production, and utilization of the world's basic commodities.

Fall. Materials fee, \$2.00. Mr. Basile.

153. POLITICAL GEOGRAPHY (3).

Physical and human geographic elements in contemporary national and international affairs.

Fall. Materials fee, \$2.00. Mr. Eyre.

154. HISTORICAL GEOGRAPHY OF THE UNITED STATES (3).

Evolution of the geographical patterns of population and human activities in major American regions.

Spring. Materials fee, \$2.00. Mr. Eyre.

155. CLIMATES (3). Natural science credit. Prerequisite, Geography 38 or permission of the instructor.

A descriptive and generic study of the climates of the earth and their distinguishing characteristics. Study emphasizes the surface complex rather than meteorologic process.

(1958-1959 and alternate years.) *Fall. Materials fee, \$2.00. Mr. Cooper.*

156. CONSERVATION OF NATURAL RESOURCES (3).

A study of American natural resources, particularly those of North Carolina and the South, with emphasis on their use, their abuse, and their conservation.

Three hours of lecture and field work a week. Materials fee, \$2.00. Staff.

157. REGIONAL GEOGRAPHY OF NORTH AMERICA (3).

Fall. Materials fee, \$2.00. Mr. Gibson.

158. REGIONAL GEOGRAPHY OF EUROPE (3).

The distribution of landforms, climates, people, and cultural features in Europe west of the Soviet Union.

Spring. Materials fee, \$2.00. Mr. Cooper.

159. REGIONAL GEOGRAPHY OF SOUTH AMERICA (3).

A study of the environment, resources and activities of continental South America.

Fall. Materials fee, \$2.00. Mr. Basile.

160. REGIONAL GEOGRAPHY OF MIDDLE AMERICA (3).

A correlation of the environment, resources and activities of the mainland countries from Mexico to Panama as well as of the Caribbean islands.

Spring. Materials fee, \$2.00. Mr. Basile.

164. METEOROLOGY (4). Prerequisites, Geography 38, general physics, or equivalent.

Three lecture and two laboratory hours a week. Time to be arranged. Laboratory fee, \$3.50. Staff.

171. CARTOGRAPHY (3).

Introduction to maps and map-making, stressing elementary drafting techniques and map design.

One lecture and four laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. Eyre.

178, 179. FIELD COURSES IN GEOGRAPHY (4 each). Prerequisites, Geography 38, Geology 1 or 41.

Staff.

181. REGIONAL GEOGRAPHY OF EASTERN ASIA (3).

Geographical arrangement of population and human activities in their physical setting in China, Japan, Korea, and the Russian Far East.

Fall. Materials fee, \$2.00. Mr. Eyre.

182. REGIONAL GEOGRAPHY OF SOUTHERN ASIA (3).

Geographical arrangement of population and human activities in their physical setting in India, Pakistan, Ceylon, and the countries of southeastern Asia.

Spring. Materials fee, \$2.00. Mr. Eyre.

Courses for Graduates

211. SPECIAL WORK IN GEOGRAPHY (3 or more). Prerequisites, Geography 38 and two courses in the one hundred bracket.

Staff.

301. SEMINAR (3 or more).

Time to be arranged. Staff.

311. RESEARCH IN GEOGRAPHY (3 or more).

Staff.

315. THESIS (5 or more).

DEPARTMENT OF GERMANIC LANGUAGES

Professors: JOHN G. KUNSTMANN, G. S. LANE, W. P. FRIEDERICH, F. E. COENEN

Associate Professor: H. W. REICHERT¹

Assistant Professors: RANSOM T. TAYLOR, WALTER W. ARNDT (Russian)

Part-time Instructors: ANN R. ARTHUR, IEVA AŠMYTE, ALICE F. CARSE, ALLEN H.

CHAPPEL, RUFUS S. DUNHAM, JR., WALTER L. ROBBINS, JANE S. SMITH, SIDNEY R.

SMITH, JR., RIA STAMBAUGH, CARL E. STEINHAUSER, JAMES C. THOMAS

Teaching Fellow: HAROLD O. WHITE

Students interested in having their undergraduate major in German should consult the departmental chairman in the second semester of their sophomore year, if possible. For the fulfillment of the departmental requirements for the undergraduate major six to eight courses, in addition to German 21, must be taken from the following: German 22, 31 or 32 or both, 90, 145, plus a minimum of three literature courses from the 100 bracket.

1. Absent on leave, fall, 1958-1959, as Kenan Professor for the Term of One Semester; Absent on leave, spring semester, 1959.

Courses for Undergraduates

1-2. ELEMENTARY GERMAN (6).

Both semesters. Mr. Taylor; instructors.

3-4. INTERMEDIATE GERMAN² (6).

Both semesters. Messrs. Taylor (German 3) and Coenen (German 4); instructors.

21, 22. ADVANCED GERMAN (3 each). Prerequisite, German 4 or equivalent.

21: Reading of selected prose writers of the nineteenth and twentieth centuries.

22: Reading of selections from Lessing, Schiller, and Goethe.

Both semesters. Messrs. Coenen and Lane.

31, 32. CONVERSATIONAL GERMAN (3 each). Prerequisite, German 4 or equivalent.

31, *fall*; 32, *spring*. Mr. Taylor.

90. ADVANCED GERMAN GRAMMAR (3). Prerequisite, German 22 or equivalent.

Review, expansion, and drill. Required of undergraduate majors and candidates for advanced degrees in German. The course yields no credit for the latter.

Fall. Mr. Kunstmann.

Courses Without Credit for Graduate Students

101x, 102x. ELEMENTARY GERMAN FOR GRADUATE STUDENTS (no credit).

These courses are designed for preparation for reading knowledge examinations for higher degrees. Passing of the examination at the end of 102x will certify that this requirement has been satisfied.

Three hours a week, both semesters. Fee, \$15.00. Mr. Kunstmann; instructors.

Courses for Graduates and Advanced Undergraduates

103. EXERCISES IN STYLISTICS (3). Prerequisite, German 32 and 90 or equivalent.

A *rigorosum* in advanced oral and written composition. Open to undergraduate majors in German on permission of the departmental adviser. Required of candidates for advanced degrees in German.

Spring. Mr. Kunstmann.

109. GERMAN PROSE IN THE NINETEENTH CENTURY (3). Prerequisite, German 22 or equivalent.

Study of the major prose writers of the nineteenth century. Readings, lectures, and reports.

Fall. Mr. Coenen.

111. GERMAN DRAMA IN THE NINETEENTH CENTURY (3). Prerequisite, German 22 or equivalent.

Kleist, Grabbe, Büchner, Grillparzer, Hebbel, Ludwig. Readings, lectures, and reports.

Fall. Mr. Coenen.

² German 3 and 4 may be taken separately for credit by properly qualified students who have fulfilled their language requirements.

115. THE GERMAN LYRIC FROM HÖLDERLIN TO THE PRESENT (3). Prerequisite, German 22 or equivalent.

An analysis of the chief lyric poets, movements, and types of the past one hundred and fifty years.

Spring. Mr. Reichert.

121. GOETHE'S EARLY WORKS (TO THE ITALIAN JOURNEY) (3). Prerequisite, German 22 or equivalent.

Study of his early life. Reading and interpretation of representative works. Lectures and reports.

Spring. Mr. Coenen.

122. GOETHE'S LATER WORKS (3). Prerequisite, German 22 or equivalent.

Goethe's life and works from 1788 to 1832, with special emphasis on *Wilhelm Meister* and *Faust* and on Goethe's attitude towards the Napoleonic Wars and Romanticism.

Spring. Mr. Friederich.

131. GERMAN LITERATURE OF THE EIGHTEENTH CENTURY (3). Prerequisite, German 22 or equivalent.

The various literary trends of the eighteenth century (exclusive of Goethe and Schiller), with special emphasis on Lessing, Wieland, Klopstock, and Herder.

Spring. Mr. Friederich.

137. SURVEY OF GERMAN LITERATURE IN ENGLISH TRANSLATION (Comparative Literature 137) (3).

Fall. Mr. Reichert.

141. SCHILLER (3). Prerequisite, German 22 or equivalent.

(1) Life and time; (2) dramatic works; (3) philosophic and aesthetic theory.

Spring. Mr. Reichert.

145. GERMAN PHONETICS (3). Prerequisite, German 31.

A course in German pronunciation and phonetics for prospective teachers of German. Required of undergraduate majors and candidates for advanced degrees in German.

Spring. Mr. Coenen.

152. THE GERMAN NOVEL SINCE 1890 (3). Prerequisite, German 22 or equivalent.

A study of the outstanding German novelists since Fontane, with particular emphasis on Mann, Hesse, and Kafka.

Spring. Mr. Reichert.

153. THE GERMAN DRAMA SINCE 1890 (3). Prerequisite, German 22 or equivalent.

A study of the modern German dramatists beginning with Hauptmann, with especial emphasis on the drama of naturalism and expressionism.

Fall. Mr. Reichert.

155. GOETHE IN ENGLISH TRANSLATION (Comparative Literature 155) (3).

Fall. Mr. Friederich.

161. HISTORY OF THE GERMAN LANGUAGE (3). Prerequisite, a good reading knowledge of German.

Spring. Mr. Arndt.

171. GERMAN CIVILIZATION (3).

Lectures given in German. Germany's cultural achievements in broad outline.

Spring. Mr. Friederich.

Courses for Graduates

201. MATERIALS AND METHODS OF RESEARCH (3).

Fall. Mr. Kunstmann.

210. OLDER GERMAN LITERATURE TO 1050 (3).

Continental Germanic and German literature from its beginning to the end of the Old High German period.

Fall. Mr. Kunstmann.

221. GOTHIC (3).

Grammar and analysis of selections from the Gothic Bible. Comparison with other Germanic languages, particularly Old English and Old High German.

Fall. Mr. Lane.

222. OLD HIGH GERMAN (3).

Grammar and reading of selected texts from Braune's *Althochdeutsches Lesebuch*. Lectures on historical phonology and morphology.

Spring. Mr. Lane.

223. COMPARATIVE GERMANIC GRAMMAR (3). Prerequisite, previous study of at least two older Germanic languages.

Spring, on demand. Mr. Lane.

232. OLD SAXON (3).

Grammar and readings from the *Heliand*. Especial attention paid to the relationship with Old English on the one hand and Old High German on the other.

One semester, on demand. Mr. Lane.

233, 234. OLD NORSE (ICELANDIC) (3 each).

Grammar and readings from the prose *Edda*, the Icelandic sagas and (second semester) the poetic *Edda*.

Two semesters, on demand. Mr. Lane.

235, 236. MIDDLE HIGH GERMAN (3 each).

Grammar and reading of selections from some of the masterpieces of medieval German literature 1100-1300.

Fall and spring, on demand. 235 (grammar), Mr. Lane; 236 (masterpieces), Mr. Kunstmann.

240, 241. READING COURSE (3 each).

A course designed to fill certain lacunae in a candidate's training. Reading, reports, brief discussions.

Fall and spring. Mr. Kunstmann.

252. LATE MEDIEVAL AND REFORMATION LITERATURE (3).

German literature from ca. 1300 to 1575, with special emphasis on Humanism and Reformation.

Spring. Mr. Kunstmann.

253. GERMAN LITERATURE FROM 1575 to 1730 (3).

German literature, its problems and its spiritual and historical background from Fischart through the Baroque Century to Gottsched.

On demand. Mr. Friederich.

270. GENERAL INTRODUCTION TO GERMAN VOLKSKUNDE (3). A reading knowledge of French is desirable but not necessary.

A survey of the fields of German literary and non-literary *Volkskunde* with special attention to *Märchen* and *Sprichwort*.

Fall. Mr. Kunstmann.

272. THE GERMAN VOLKSLIED (3).

Survey of German *Volkslied* studies from the eighteenth century to the present; theories concerning the provenance of the *Volkslied*; special attention to the inter-relation of *Volkslied* and *Kunstlied*.

Spring. Mr. Kunstmann.

340, 341. SEMINAR IN OLDER GERMAN LITERATURE (3 each).

On demand. Mr. Kunstmann.

342, 343. SEMINAR IN GERMAN VOLKSKUNDE (3 each).

On demand. Mr. Kunstmann.

345, 346. SEMINAR IN GERMAN LITERATURE (3 each).

Problems in versification, translation, genres.

Foreign contacts of German literature.

On demand. Mr. Friederich.

350, 351. SEMINAR IN GERMAN LITERATURE (3 each).

Problems of Romantic literature.

Drama and dramatists.

On demand. Mr. Coenen.

355, 356. SEMINAR IN GERMAN LITERATURE (3 each).

Philosophical influences on German Classicism and Romanticism

Literary problems since 1850.

On demand. Mr. Reichert.

361, 362. SEMINAR IN LINGUISTICS (3 each).

On demand. Mr. Lane.

395. RESEARCH (3). Staff.

RUSSIAN

An expanding range of courses in Russian language and literature will be offered to undergraduate and graduate students desiring to enhance their understanding of a historically influential and increasingly vital component of European and world civilization.

The following courses are offered at present, to be supplemented in time by others in the areas of linguistics, literature, and a second Slavic language:

1-2. ELEMENTARY RUSSIAN (6).

Introductory course designed to lay foundation of grammar and to convey basic reading and pronunciation skills.

Three hours a week, through two semesters, 1, fall; 2, spring. Mr. Arndt.

3-4. INTERMEDIATE RUSSIAN (6).

Grammar-translation work with increasing proportions of free reading and oral work.

Three hours a week, through two semesters, 3, fall; 4, spring. Mr. Arndt.

160. RUSSIAN PROSE LITERATURE OF THE NINETEENTH CENTURY (Comparative Literature 160) (3).

Fall. Mr. Arndt.

GREEK

(See Classics)

DEPARTMENT OF HISTORY

Professors: F. M. GREEN, J. G. DER. HAMILTON,¹ W. W. PIERSON, M. B. GARRETT,² W. E. CALDWELL, L. C. MACKINNEY, H. T. LEFLER, C. H. PEGG, CECIL JOHNSON, J. C. SITTERSON, J. L. GODFREY, J. W. PATTON,³ H. A. BIERCK, C. O. CATHEY, F. W. KLINGBERG, J. E. KING

Associate Professors: E. P. DOUGLASS,⁴ G. V. TAYLOR, G. B. TINDALL

Assistant Professors: R. M. MILLER, C. M. FOUST, JR., S. B. BAXTER

Instructors: R. D. S. HIGHAM, P. F. WALKER

Teaching Fellows: JUSTIN FULLER, JR., N. M. JOHNSON, J. B. SMALLWOOD, JR.

Waddell Fellows: N. D. BROWN, B. H. HILL, JR., N. C. HUGHES, JR.

Graduate Assistants: E. J. CLARK, J. H. DORMON, MARGHARETTA C. ELDRIDGE, J. G. GRAYSON, D. A. HARRIS, C. R. LEE, JR., A. H. MICHIE, W. W. MOORE, III, J. W. POWERS, W. J. SCHMIDT, STANLEY SUVAL

Social Science Staff

Associate Professor: J. R. CALDWELL

Assistant Professor: F. W. RYAN, JR.

Instructors in Social Science Affiliated with the Department of History: J. B. MACLEOD, W. M. GEER, O. H. OLSEN, O. S. CONNELLY, R. S. CROMWELL

Instructor in Social Science Affiliated with the Department of Political Science: E. L. PINNEY

Part-time Instructors: R. E. BEITZELL, W. R. CRADDOCK, J. W. JOHNSON, W. E. MACKIE, N. F. MAGRUDER, A. M. SCOTT, P. K. SINCLAIR, F. L. TURNER, JR., J. C. WALLACE

Graduate Assistant: R. H. DILLARD

The undergraduate major program in history is designed to train the mind in the study of human affairs, to prepare candidates for graduate training in history, and to provide a general foundation suitable for a variety of occupations. It will consist of eight to ten courses, six of which must be chosen from those numbered from 50 to 199, and the student must elect a concentration of at least five courses in either (1) American-Latin American History or (2) European-English-Asian History. At least six of the major courses taken while the student is enrolled in the College of Arts and Sciences must be completed with grades of C or better.

Honors courses in history (97, 98, and 99) carry full credit toward the major and are open only to students who have previously distinguished themselves. Admission to the honors courses is premised upon an overall average of B or better, recommendation from a member of the department, and approval by the chairman of the Departmental Honors Committee. Students successfully completing the honors program are entitled to graduate "with honors" or "with highest honors," as recommended by the department.

NOTE: History 21 and 22 are open to General College students only; History 71 and 72 are restricted to juniors and seniors and cannot be taken by those having previously completed History 21 and 22.

1. Kenan Professor and Director of the Southern Historical Collection, Emeritus.

2. Professor, Emeritus.

3. Director of the Southern Historical Collection.

4. Absent on leave, 1958-1959.

Courses for Undergraduates

1-2. SOCIAL SCIENCE (6). Freshman requirement. Prerequisite to all other courses in history.

Three hours a week, fall and spring. Fee for materials, \$1.50 each semester. Members of staff.

21, 22. AMERICAN HISTORY: GENERAL COURSE (6). Sophomore elective.

Three hours a week, fall and spring. Messrs. Johnson, Cathey, Douglass, Klingberg, Tindall, Miller, Higham, and Walker.

41, 42. ANCIENT AND MEDIEVAL HISTORY: GENERAL COURSE (6).

Sophomore elective, open to juniors and seniors.

Three hours a week, fall and spring. Messrs. Caldwell and MacKinney.

44, 45. ENGLISH HISTORY: GENERAL COURSE (6). Sophomore elective, open to juniors and seniors.

Three hours a week, fall and spring. Messrs. Higham and Baxter.

46. LATIN AMERICAN HISTORY: COLONIAL AND REVOLUTIONARY PERIODS (3). Sophomore elective, open to juniors and seniors.

Fall. Mr. Bierck.

47. LATIN AMERICAN COUNTRIES DURING THE NATIONAL PERIOD (3). Sophomore elective, open to juniors and seniors.

Spring. Mr. Bierck.

48. MODERN EUROPEAN HISTORY, 1500-1815 (3). Sophomore elective, open to juniors and seniors.

Fall. Messrs. Foust, Barter, and Higham.

49. MODERN EUROPEAN HISTORY SINCE 1815 (3). Sophomore elective, open to juniors and seniors.

Spring. Messrs. Taylor, Baxter, and Higham.

51. HISTORY OF THE ANCIENT NEAR EAST (3).

Spring. Mr. Caldwell.

52. HISTORY OF GREECE (3).

Fall. Mr. Caldwell.

53. HISTORY OF ROME (3).

Spring. Mr. Caldwell.

65. EUROPE AND THE NEAR EAST IN THE CRUSADING AGE, 1000-1300 (3).

(1959-1960 and alternate years.) Fall. Mr. MacKinney.

66. THE AGE OF THE RENAISSANCE, 1250-1550 (3).

(1958-1959 and alternate years.) Spring. Mr. MacKinney.

71. AMERICAN HISTORY TO 1865: GENERAL COURSE (3). Junior-senior elective.

Both 21 and 71 may not be taken for credit.

Fall and spring. Messrs. Cathey, Klingberg, Douglass, Tindall, Miller, Higham, and Walker.

72. AMERICAN HISTORY SINCE 1865: GENERAL COURSE (3). Junior-senior elective.

Both 22 and 72 may not be taken for credit.

Fall and spring. Messrs. Cathey, Klingberg, Douglass, Tindall, Miller, Higham, and Walker.

83. HISTORY OF THE FAR EAST TO 1368, I (3).

Fall. Mr. Foust.

84. HISTORY OF THE FAR EAST SINCE 1368, II (3).

Spring. Mr. Foust.

85. THE UNITED STATES IN THE PACIFIC AREA SINCE 1784 (3).

Fall. Mr. Miller.

87. EXPANSION OF EUROPE IN THE FAR EAST, 1500-1842 (3).

Spring. Mr. Foust.

90. HISTORY OF RUSSIA TO 1725, I (3).

Fall. Mr. Foust.

91. HISTORY OF RUSSIA, 1725 to 1917, II (3).

Spring. Mr. Foust.

96. PROBLEMS IN AMERICAN HISTORY (3). A pro-seminar for history majors.

Spring. Mr. Miller.

97. HONORS COURSE (3).

Required of all students reading for honors in history.

Mr. MacKinney.

98. HONORS COURSE (3).

Required of all students reading for honors in European history.

Members of European history staff.

99. HONORS COURSE (3).

Required of all students reading for honors in United States history.

Members of American history staff.

NOTE: Courses in Directed Teaching of the Social Sciences and in Materials and Methods of Teaching the Social Sciences will be found under the School of Education.

Courses for Graduates and Advanced Undergraduates

109. GREEK AND ROMAN HISTORICAL LITERATURE (Classics 109) (3).

Spring. Mr. Allen (of the Department of Classics).

110. EUROPEAN COLONIZATION OF THE NEW WORLD (3). Not open to graduate majors in American history.

Fall. Mr. Bierck.

111. EARLY AMERICAN HISTORY, 1689-1789 (3). Not open to graduate majors in American history.

Spring. Mr. Lefler.

112. UNITED STATES HISTORY, 1789-1848 (3). Not open to graduate majors in American history.

Fall. Mr. Cathey.

113. UNITED STATES HISTORY, 1848-1897 (3). Not open to graduate majors in American history.

Spring. Mr. Klingberg.

114. UNITED STATES HISTORY SINCE 1897 (3). Not open to graduate majors in American history.

Fall. Mr. Sitterson.

120. ORIGINS AND DEVELOPMENT OF MODERN SCIENCE (3).
(1958-1959 and alternate years.) *Spring*. Mr. MacKinney.
121. MEDIEVAL CULTURAL LIFE (3).
(1958-1959 and alternate years.) *Fall*. Mr. MacKinney.
122. SOCIAL-ECONOMIC HISTORY OF THE MIDDLE AGES (3).
(1959-1960 and alternate years.) *Fall*. Mr. MacKinney.
123. HISTORY OF SPAIN (3).
(1959-1960 and alternate years.) *Spring*. Mr. MacKinney.
125. THE INTELLECTUAL HISTORY OF EUROPE, SIXTEENTH AND SEVENTEENTH CENTURIES (3).
(1959-1960 and alternate years.) *Fall*. Mr. King.
126. THE INTELLECTUAL HISTORY OF EUROPE, EIGHTEENTH AND NINETEENTH CENTURIES (3).
(1959-1960 and alternate years.) *Spring*. Mr. King.
131. THE PROTESTANT REVOLT (3).
(1958-1959 and alternate years.) *Fall*. Mr. King.
132. THE RISE OF ABSOLUTISM IN EUROPE (3).
(1958-1959 and alternate years.) *Spring*. Mr. King.
133. EUROPE IN AN AGE OF REVOLUTION, 1789-1815 (3).
Fall. Mr. Taylor.
134. EUROPE, 1815-1870 (3).
Spring. Mr. Taylor.
135. EUROPE, 1870-1918 (3).
Fall. Mr. Pegg.
136. EUROPE SINCE 1918 (3).
Spring. Mr. Pegg.
137. MEDIEVAL ENGLAND (3).
(1958-1959 and alternate years.) *Spring*. Mr. Baxter.
138. ENGLAND FROM 1485 TO 1760 (3).
Fall. Mr. Baxter.
139. GREAT BRITAIN FROM 1760 TO 1867 (3).
Fall. Mr. Godfrey.
140. GREAT BRITAIN SINCE 1867 (3).
Spring. Mr. Godfrey.
141. DEVELOPMENT OF THE ENGLISH CONSTITUTION (Political Science 154) (3).
Fall. Mr. Godfrey.
142. HISTORY OF SOVIET RUSSIA (3).
Fall. Mr. Pegg.
143. THE DIPLOMATIC HISTORY OF THE UNITED STATES (3).
Spring. Mr. Johnson.
145. THE HISTORY OF AMERICAN IDEAS, 1607-1860 (3).
(1958-1959 and alternate years.) *Fall*. Mr. Tindall.
146. THE HISTORY OF AMERICAN IDEAS, 1860 TO PRESENT (3).
(1959-1960 and alternate years.) *Fall*. Mr. Tindall.

159. THE BRITISH COMMONWEALTH OF NATIONS (Political Science 159) (3).
Fall. Mr. Baxter.
161. NORTH CAROLINA I, 1584-1835 (3).
Fall. Mr. Lefler.
162. NORTH CAROLINA II, 1835-1950 (3).
Fall and spring. Mr. Lefler.
163. THE OLD SOUTH (3).
Fall. Mr. Green.
164. THE SOUTH SINCE RECONSTRUCTION (3).
Spring. Mr. Tindall.
167. ECONOMIC HISTORY OF THE UNITED STATES TO 1865 (3).
 (1959-1960 and alternate years.) *Spring.* Mr. Cathey.
168. ECONOMIC HISTORY OF THE UNITED STATES SINCE 1865 (3).
Spring. Mr. Sitterson.
170. SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES (Education 143) (3).
Fall. Mr. A. K. King (of the School of Education).
171. ARGENTINA, BRAZIL, AND CHILE (3).
 (1959-1960 and alternate years.) *Fall.* Mr. Bierck.
172. INTER-AMERICAN ECONOMIC AND CULTURAL RELATIONS (3).
 (1958-1959 and alternate years.) *Spring.* Mr. Bierck.
173. THE BOLIVARIAN STATES SINCE INDEPENDENCE (3).
 (1959-1960 and alternate years.) *Fall.* Mr. Bierck.
174. MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN (3).
 (1958-1959 and alternate years.) *Spring.* Mr. Bierck.
175. THE CONSTITUTION OF THE UNITED STATES (Political Science 155) (3).
Fall and spring. *Materials fee, \$1.00.* Mr. Jenkins (of the Department of Political Science).

Courses for Graduates

201. EUROPEAN HISTORIOGRAPHY⁵ (3).
Fall. Mr. King.
202. AMERICAN HISTORIOGRAPHY⁵ (3).
Spring. Mr. Klingberg.
206. GREEK HISTORY, 500-146 B.C. (3).
 (1959-1960 and alternate years.) *Fall.* Mr. Caldwell.
207. ROMAN HISTORY, 133-31 B.C. (3).
 (1958-1959 and alternate years.) *Fall.* Mr. Caldwell.
208. ROMAN HISTORY, 31 B.C.-180 A.D. (3).
Spring. Mr. Caldwell.
224. THE AGE OF THE RENAISSANCE, 1250-1550 (3).
Spring. Mr. MacKinney.

5. Candidates for the A.M. degree will take 201 if their major is European history, 202 if their major is American history. Candidates for the Ph.D. degree will take both 201 and 202.

233. PROBLEMS IN THE STUDY OF THE FRENCH REVOLUTION, 1789-1815 (3).
(1958-1959 and alternate years.) *Fall*. Mr. Taylor.
236. RECENT AND CONTEMPORARY EUROPEAN HISTORY (3).
Spring. Mr. Pegg.
249. CIVILIZATION IN THE AMERICAN COLONIES (3).
(1958-1959 and alternate years.) *Spring*. Mr. Lefler.
250. THE AMERICAN REVOLUTION AND ITS BACKGROUND (3).
(1959-1960 and alternate years.) *Spring*. Mr. Lefler.
251. THE FEDERAL PERIOD, 1783-1815 (3).
(1958-1959 and alternate years.) *Fall*. Mr. Cathey.
252. THE MIDDLE PERIOD, 1815-1860 (3).
(1959-1960 and alternate years.) *Fall*. Mr. Green.
255. CIVIL WAR, RECONSTRUCTION, AND FOUNDATIONS OF MODERN AMERICA (3).
(1959-1960 and alternate years.) *Spring*. Mr. Klingberg.
256. RECENT AND CONTEMPORARY UNITED STATES (3).
(1958-1959 and alternate years.) *Fall*. Mr. Sitterson.
270. PROBLEMS IN LATIN AMERICAN HISTORY (3).
Spring. Mr. Bierck.
301. ANCIENT HISTORY (3).
Conference and reports, three hours a week, spring. Mr. Caldwell.
311. MEDIEVAL HISTORY (3).
Conference and reports, three hours a week, fall. Mr. MacKinney.
319. EARLY MODERN EUROPEAN HISTORY (3).
Conference and reports, three hours a week, spring. Mr. King.
320. FRENCH REVOLUTION AND THE NINETEENTH CENTURY (3).
Conference and reports, three hours a week, fall. Mr. Taylor.
- 321ab. RECENT MODERN EUROPEAN HISTORY (3 each).
Conference and reports, three hours a week, fall and spring. Mr. Pegg.
322. TUDOR-STUART ENGLAND (3).
Conference and reports, three hours a week, fall. Mr. Baxter.
323. MODERN ENGLISH HISTORY (3).
Conference and reports, three hours a week, spring. Mr. Godfrey.
331. AMERICAN COLONIAL HISTORY (3).
Conference and reports, three hours a week, fall. Mr. Lefler.
- 335ab. THE NATION AND THE SECTIONS (3 each).
Conference and reports, three hours a week, fall and spring. Mr. Green.
336. CIVIL WAR AND RECONSTRUCTION (3).
(1958-1959 and alternate years.) *Conference and reports, three hours a week, spring*. Mr. Klingberg.
337. RECENT HISTORY OF THE UNITED STATES (3).
(1959-1960 and alternate years.) *Conference and reports, three hours a week, spring*. Mr. Sitterson.
341. READING COURSE (3).
Fall and spring. Members of the graduate faculty.

370a. LATIN AMERICAN HISTORY (3).

Conference and reports, three hours a week, fall. Mr. Bierck.

370b. LATIN AMERICAN HISTORY (3).

Conference and reports, three hours a week, spring. Mr. Pierson.

375. THESIS COURSE (3).

Fall and spring. Members of the graduate faculty.

SCHOOL OF JOURNALISM

Professors: NORVAL NEIL LUXON, C. P. RUSSELL,¹ WALTER SPEARMAN

Associate Professors: JOHN B. ADAMS, KENNETH R. BYERLY, WAYNE A. DANIELSON,²

JOSEPH L. MORRISON, STUART W. SECHRIEST

Lecturer: CONRAD R. HILL

Research Assistants: CHARLES M. BONJEAN, JERRY A. SHIELDS

Courses in the School of Journalism are open to juniors, seniors, and graduate students in other schools in the University who meet the prerequisites or obtain permission of the instructor or the Dean.

Journalism courses by arrangement with the College of Arts and Sciences have been grouped into three categories: (1) Courses allied to Humanities; (2) Those allied most closely to the Social Sciences; and (3) Professional courses. Students enrolled in the College of Arts and Sciences may elect courses in the first two categories, providing they have the prerequisites or permission of the instructor, but courses in the Professional category may not be taken for credit toward a degree in the College of Arts and Sciences without prior approval by the Administrative Board.

Humanities-allied courses are 53, 56, 58, 60, and 73. Those in the Social Science category are 54, 146, 161, 165, 184, and 191. Professional courses are 55, 57, 59, 62, 63, 67, 74, and 80.

Students in the School of Business Administration and School of Education should consult with journalism staff members and their advisers before scheduling journalism courses.

Journalism students interested in International Studies may take many of the courses in that curriculum, including the "core courses," in meeting journalism requirements in history and political science and as electives. Those interested should consult the Dean of the School of Journalism or the journalism adviser on International Studies.

Curriculum leading to the degree Bachelor of Arts in Journalism: The course of study for the first two years is the same as that required of other candidates for the Bachelor of Arts degree. Students are advised to meet their social science requirement by taking Social

1. Professor, Emeritus.

2. Effective January 27, 1959.

Science 1 and 2 and Political Science 41. Another recommended course to meet the General College Natural Science requirement is Psychology 26. Suggested sophomore electives are: Economics 31-32, English 23 or 26, Philosophy 21 or 22, Political Science 51, Sociology 51.

The professional program of the School of Journalism consists of eight to ten journalism courses, four of which are specified; two American history or North Carolina history courses, Political Science 41; two advanced courses in any one of four social science departments: economics, political science, psychology, or sociology. Prerequisites for these advanced courses are respectively: Economics 31-32 or 61, Political Science 41, Psychology 26, or Sociology 51. The prerequisite course or courses preferably should be taken in the General College but may be taken in the junior year.

The four journalism courses required of all candidates for the Bachelor of Arts degree in Journalism are 53, Introduction to News Writing; 57, News Editing; 161, History of Journalism; and 184, The Press, the Constitution, and the Law.

Journalism assignments must be typewritten; therefore it is essential that each student be able to type with reasonable skill and speed.

Students who have an undergraduate major in journalism or the equivalent may earn the Master of Arts degree with a major in journalism through the Graduate School. Areas of interest in the field of communication available to graduate students include history of journalism, media research, and international communications.

A graduate minor in journalism is available for candidates for the A.M. and Ph.D. degrees in English, history, political science, psychology, and sociology, and the M.A. in Communication.

Students interested at present or in the future in the graduate program may obtain additional information from the School of Journalism Bulletin, the Graduate School Catalogue, or by consultation with the Dean of the School of Journalism, 202 Bynum Hall.

Courses for Undergraduates

53. INTRODUCTION TO NEWS WRITING (3). Prerequisite, sophomore standing and ability to type.

Required of all candidates for the A.B. in Journalism. Study of the elements of news stories, writing of leads, and organization of news stories, supplemented by assignments on the *Daily Tar Heel*.

Two lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$2.00. Messrs. Byerly, Morrison, and Spearman.

54. REPORTING OF PUBLIC AFFAIRS (3). Prerequisite, Journalism 53.

Instruction and practical experience in the reporting of local, state, and federal courts and municipal, county, state, and federal government supplemented by assignments on the *Daily Tar Heel*.

Fall and spring. Laboratory fee, \$2.00. Mr. Morrison.

55. **ADVANCED REPORTING (3)**. Prerequisite, Journalism 53; Journalism 54 recommended.

Students work with reporters and write stories independently on assignments, thereby gaining experience under actual working conditions. Laboratory experience gained through work on Chapel Hill and Durham newspapers.

Two lecture and three laboratory hours a week, fall and spring. Laboratory fee, \$2.00. Messrs. Byerly and Spearman.

56. **FEATURE WRITING (3)**.

Instruction and practice in writing feature articles for newspapers and magazines.

Fall and spring. Mr. Morrison.

57. **NEWS EDITING (3)**. Prerequisite, Journalism 53.

Study and practice in copy reading, headline writing, proofreading; with attention given printing terminology, page makeup, type structure, and content analysis of newspapers.

Fall and spring. Laboratory fee, \$2.00. Mr. Sechriest.

58. **EDITORIAL WRITING (3)**.

Practice in writing editorials for daily and non-daily newspapers.

Fall and spring. Mr. Spearman.

59. **COMMUNITY NEWSPAPER PRODUCTION (3)**.

News, editorial, advertising, circulation and business problems, and policies of non-daily and small daily newspapers; field trips, practical experience.

Fall and spring. Laboratory fee, \$2.00. Mr. Byerly.

60. **BOOK REVIEWING AND DRAMATIC CRITICISM FOR NEWSPAPERS (3)**.

Historical background of criticism; examination of contemporary reviewing techniques, and writing of reviews of books, plays, motion pictures, concerts, and art exhibits.

Fall and spring. Mr. Spearman.

62. **NEWSPAPER ADVERTISING I (3)**.

A beginning course in advertising theory and practice involving mainly newspaper advertising, but also covering briefly the other media such as: radio, magazines, direct mail, outdoor, and television.

Two lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$2.00. Mr. Hill.

63. **NEWSPAPER ADVERTISING II (3)**. Prerequisite, Journalism 62.

A continuation of the material covered in Journalism 62. The procedure involved in selling retail advertising, and formulating a retail sales plan and advertising budget, is studied.

Two lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$2.00. Mr. Hill.

67. **ADVERTISING COPYWRITING (3)**. Prerequisite, Journalism 62.

This course involves both theory and practice. Preparation for writing successful advertising copy for all media, covering both the retail and national levels.

Fall and spring. Laboratory fee, \$2.00. Mr. Hill.

73. **RADIO AND TELEVISION JOURNALISM (3)**.

Class members write and edit copy for the air, this work supplemented by experience gained writing news copy used by the University's radio station, WUNC.

Fall. Fee for materials, \$2.00. Mr. Morrison.

74. BUSINESS JOURNALISM (3).

Subject matter includes trade journals, house organs, and publicity. Students query business paper editors by mail, write and sell articles as part of their course work.

Spring. Mr. Morrison.

80. NEWS PHOTOGRAPHY (3). Prerequisite, permission of the instructor.

A practical study of press-type camera techniques, various photographic situations, and darkroom procedures. Assignments include problems dealing with photographic composition, pictures by existing light, depth of field, synchronized flash, and action photography.

Two lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$5.00. Mr. Sechriest.

Courses for Graduates and Advanced Undergraduates

146. INTERNATIONAL COMMUNICATIONS AND COMPARATIVE JOURNALISM (Political Science 146) (3). Prerequisite, six semester hours of upper-division courses in international relations or recent European history.

Development of international communications; the world's press systems; international organization and freedom of information; the foreign correspondent; international information programs.

Spring. Mr. Adams.

161. HISTORY OF JOURNALISM (3).

A history of United States newspapers from 1690 to the mid-twentieth century with some attention to magazines and class periodicals.

Fall. Mr. Luxon.

165. COMMUNICATION AND OPINION (Psychology 165, Sociology 165) (3). Prerequisites, any two of the following courses: Psychology 26 or 27, Political Science 41, Sociology 51.

The communication process; persuasion and opinion formation; propaganda and "public opinion"; the audiences and effects of the mass media.

Fall and spring. Messrs. Adams and Danielson.

184. THE PRESS, THE CONSTITUTION, AND THE LAW (3). Prerequisite, senior standing.

The concept of freedom of the press and its development under the Constitution of the United States and state and federal laws. Government regulations affecting the press. Libel, contempt, right of privacy, inspection of public records, copyright, and other laws.

Spring. Mr. Adams.

191. FUNCTIONS AND RESPONSIBILITIES OF CONTEMPORARY JOURNALISM (3). Prerequisites, senior standing and permission of the instructor for non-majors.

Study of functions and responsibilities of newspapers, radio, television, and magazines as media of mass communications in modern society with emphasis on the role of the press.

Spring. Mr. Luxon.

Courses for Graduates

251. MEDIA RESEARCH METHODS (Radio, Television, and Motion Pictures 251) (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures.

Bibliography; elements of experimental design and survey research methodology; audience studies and audience measurement problems; content analysis; representative studies.

Fall and spring. Messrs. Adams and Danielson.

301. SEMINAR IN HISTORY OF AMERICAN JOURNALISM (3).

A study of American journalism, covering individual editors, newspapers, magazines, or segments of the press.

Fall and spring. Mr. Luxon.

318. SEMINAR IN THEORIES OF COMMUNICATION (3). Prerequisites, graduate standing in journalism, sociology, or psychology, Journalism 165, or a course in social psychology, and permission of the instructor.

The class will examine various theoretical formulations concerning the communication process. Material will be drawn from such fields as general semantics, small group research, learning theory, linguistics, and information theory. An attempt will be made to synthesize a meaningful and useful set of propositions concerning mass communication.

(1958-1959 and alternate years.) *Spring.* Mr. Danielson.

340. SEMINAR IN MEDIA ANALYSIS (Psychology 340, Sociology 340) (3).

Prerequisites, graduate standing in journalism, psychology, sociology, or anthropology, and permission of the instructor.

Students will participate in the design and execution of a media research project.

(1959-1960 and alternate years.) *Spring.* Messrs. Adams and Danielson.

345. READING AND RESEARCH (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures.

Advanced reading or research in a selected field.

Fall and spring. Messrs. Adams, Danielson, and Luxon.

350. THESIS (3 or 6).

Fall and spring. Members of the graduate faculty.

LATIN

(See Classics)

DEPARTMENT OF LIBRARY SCIENCE

Professors: LUCILE KELLING HENDERSON, SUSAN G. AKERS¹

Associate Professors: CARLYLE J. FRAREY,² MARGARET E. KALP, OLAN VICTOR COOK

Assistant Professor: ROBERT A. MILLER³

Lecturer: MARGARET ALLMAN

Instructor: RAY L. CARPENTER

Library Science 122, 123, 151, and 152 may be taken by advanced undergraduates in the College of Arts and Sciences with the approval of the Dean of the School of Library Science.

Library Science 93 may be taken by elementary school teachers only.

Library Science 94, 95, 101, 133, and 143 may be taken only by advanced undergraduates in the School of Education. These courses and Library Science 122 and 123 are planned for students who wish to meet the requirements for certification as school librarians in North Carolina. Besides these library science courses, the student will take the courses in education required for certification and a major program in English, French, Latin, mathematics, natural science, or social science. These programs are outlined under the School of Education (pp. 165-67). Library Science is not a major teaching field.

Students who choose library science as a second teaching field but who wish to meet North Carolina school library certification requirements will take Library Science 95, 101, 122, 123, 143, and either Library Science 94 or 133.

The courses Library Science 101, 122, 123, 143, and 133 meet five of the six course requirements in library science for admission to the program leading to the degree of Master of Science in Library Science for school librarians.

Courses for Undergraduates

93. SURVEY AND EVALUATION OF BOOKS AND RELATED MATERIALS FOR CHILDREN⁴ (3).

A survey course in children's literature with emphasis on current books and materials, designed solely for prospective classroom teachers in elementary schools. *Fall and spring.* Miss Kalp.

94. PLACE OF THE LIBRARY IN THE SCHOOL (3).

The relationship of the library to the school as a whole, the library's contributions to the school program, and faculty-student-library cooperation. (Not offered in 1958-1959.) Miss Kalp.

95. SELECTION AND USE OF REFERENCE MATERIALS (3).

A study of basic reference materials for a school library with problems involving the use of these materials. (Not offered in 1958-1959.) Mr. Miller.

1. Dean, Emeritus and Visiting Professor, fall semester, 1958-1959.

2. Absent on leave, fall semester, 1958-1959.

3. Absent on leave, 1958-1959.

4. Not included in the 18 semester hour program for school librarians; a special course for elementary school teachers only.

101. CATALOGING AND CLASSIFICATION (3).

An introduction to the principles and methods of organizing library collections of all sizes for effective use.

Fall. Miss Akers.

122. THE SELECTION OF BOOKS AND RELATED MATERIALS FOR YOUNG PEOPLE (3).

A survey of library materials particularly suited for the use of the adolescent reader, with emphasis on readability and reading interest.

Fall. Miss Kalp.

123. THE SELECTION OF BOOKS AND RELATED MATERIALS FOR CHILDREN (3).

A survey of children's literature, including its historical development as well as current materials, designed for school librarians and librarians working with children in public libraries.

Spring. Miss Allman.

133. INTRODUCTION TO LIBRARIANSHIP (3).

Study of the library as a social institution and the role of the librarian in a democratic society.

Fall. Mr. Carpenter.

143. SCHOOL LIBRARY ORGANIZATION AND ADMINISTRATION (3).

Organization and administration of school libraries, including planning of rooms, equipment, routines, schedules, publicity and display, the work of student assistants, and the handling of audio-visual materials.

Fall. Miss Kalp.

151. HISTORY OF BOOKS AND PRINTING (3).

A study of the origin and development of the book in its various forms from the earliest times to the twentieth century.

Fall. Mr. Cook.

152. CONTEMPORARY BOOKMAKING, PUBLISHING, AND THE COMMUNICATIONS INDUSTRY (3).

A survey of the organization, structure, and procedures of contemporary publishing and of other communications industries.

Fall. Miss Allman.

DEPARTMENT OF MATHEMATICS

Professors: F. BURTON JONES, ARCHIBALD HENDERSON,¹ T. F. HICKERSON,¹ J. W. LASLEY, JR., A. W. HOBBS,² E. T. BROWNE, E. L. MACKIE, J. B. LINKER, M. A. HILL, A. S. WINSOR,² R. M. TRIMBLE, V. A. HOYLE, E. A. CAMERON, W. M. WHYBURN,³ A. T. BRAUER, B. J. PETTIS

Visiting Professor: G. M. MERRIMAN

Associate Professors: L. L. GARNER, W. R. MANN, J. S. MAC NERNEY, J. W. CARR, III⁴

Assistant Professor: D. W. WALL

Instructor: J. H. WELLS

Part-time Instructors: AGNES L. BELL, R. J. BROWN, L. L. BUMGARNER, D. L. ELLIOTT, R. O. FULP, J. S. GIBSON, JR., SARAH L. GOODMAN, J. M. GWYNN, JR., R. J. HINSON, M. P. JURKAT, J. B. LINDER, R. F. McCOART, E. J. MATULICH, A. C. MEWBORN, A. L. RHYNE, JR., P. ROY, L. B. SMITH, D. P. STANFORD, C. T. WHYBURN, K. G. WITZ

Teaching Fellows: R. H. COX, NELDA H. McDERMOTT

1. Kenan Professor, Emeritus.

2. Professor, Emeritus.

3. On leave, 1958-1959.

4. Effective spring semester, 1959.

For the degree of A.B. with a major in mathematics a student should take the following courses:

I. (a) Mathematics 31, 32, 33, 36; or 31*, 32*, 33*; or 34, 35.

(b) Four to six additional courses, of which at least four be numbered 100 or above.

II. From five to seven courses in the Division of Natural Sciences but not in mathematics.

III. From five to seven courses not in the Division of Natural Sciences.

Students intending to teach mathematics in the public schools and students enrolled in the School of Education who intend to major in mathematics should consult the section of the catalogue on the School of Education.

The following curriculum leading to the Bachelor of Science degree in Mathematics is now available:

FRESHMAN AND SOPHOMORE YEARS

Mathematics 7, 8; or 11, 12; or 15, 16;
and 31, 32, 33; or 31*, 32*;
or 34, 35

English 1, 2, 21

Social Science 1, 2

French or German 3, 4, 21,
(or 1, 2, 3, 4)

Humanities elective — one course

Sophomore social science elective — one
course.

Physics 24, 25 (or 34, 35); or
Chemistry 11-12 (or 11-21)

Hygiene 11

Physical Education 1, 2, 3, 4

Free electives to bring total semester
hours credit for the first two years to
at least 66 (including 6 hours credit
in Hygiene and Physical Education)
and the total number of full courses
to at least 18.

JUNIOR AND SENIOR YEARS

Six courses in mathematics, at least five
numbered 100 or above, including:

(a) 36 to complete 31, 32, 33, 36 se-
quence or 33* to complete 31*,
32*, 33* sequence. This require-
ment does not apply to those who
have taken 34, 35

(b) 141 or 171 or 193

(c) 135 or 136 or 147

Six courses in the Division of Natural
Sciences, including one in a biological
science; and Physics 24, 25 (or 34, 35)
if not taken in the first two years.
No course in mathematics except
Mathematics 41 and 51 may be in-
cluded.

Four courses outside the Division of
Natural Sciences

Free electives to bring total semester
hours credit for the four years to at
least 126 (including 6 hours credit in
Hygiene and Physical Education) and
the total number of full courses to
at least 38.

The department has a committee to advise students interested in
preparation for actuarial work.

Before registering for Mathematics 7, Mathematics 11, or Mathematics 15, each student is required to take a mathematics placement test.

Advanced standing examinations in algebra and trigonometry are available to well-prepared students at the time of first registration in mathematics courses.

Courses for Undergraduates

6. INTEGRATED ALGEBRA AND TRIGONOMETRY (3).

The real numbers, inequalities, exponents, radicals; functions, graphs, variation; exponential and logarithmic functions; the trigonometric functions, graphs, angles, triangles; inverse functions.

(To be offered for the first time 1959-1960.) *Fall and spring.* Staff.

7. COLLEGE ALGEBRA (3).

Fall and spring. Staff.

8. PLANE TRIGONOMETRY (3).

Fall and spring. Staff.

10. MATHEMATICS OF FINANCE (3).

Fall and spring. Staff.

11, 12. INTRODUCTION TO MATHEMATICS (3 each).

Equations, inequalities, and graphs; continuity and differentiation of polynomials; rates and extrema problems; exponential, logarithmic, and trigonometric functions and their associated identities, graphs and equations; antiderivatives and area.

Fall and spring. Staff.

15, 16. INTRODUCTION TO MATHEMATICAL ANALYSIS (3 each).

Equations, inequalities, and graphs; algebraic, trigonometric, exponential, and logarithmic functions; analytic geometry of the line and conic sections; limits; differentiation and integration with applications.

Fall and spring. Staff.

31. PLANE ANALYTIC GEOMETRY (3). Prerequisites, Mathematics 7 and 8 or 11 and 12. Course 31 may be taken simultaneously with 32.

Fall and spring. Staff.

32. DIFFERENTIAL CALCULUS (3). Prerequisite or corequisite, Mathematics 31.

Fall and spring. Staff.

33. INTEGRAL CALCULUS (3). Prerequisite, Mathematics 32.

Fall and spring. Staff.

31*, 32*, 33*. INTERMEDIATE CALCULUS WITH ANALYTIC GEOMETRY (3 each). Prerequisite, Mathematics 12 or 16.

This three course sequence of three-semester hour courses gives an integrated treatment of analytic geometry, differential and integral calculus which parallels the content of Mathematics 34, 35.

Fall and spring. Staff.

34, 35. INTERMEDIATE CALCULUS WITH ANALYTIC GEOMETRY (5 each). Prerequisite, Mathematics 12 or 16.

Derivatives, rates, tangents, curve plotting, maxima and minima; antiderivatives, definite integrals, the fundamental theorem of integral calculus, methods of integration; conic sections; vectors, determinants, and linear equations; curvature and arc length; partial differentiation; multiple integrals; geometrical and physical applications; infinite series.

Fall and spring. Staff.

36. TOPICS IN CALCULUS (3). Prerequisite, Mathematics 33. Not to be taken by students who have had 33* or 35.

Partial differentiation, limits and continuity, multiple integrals, series.

Fall. Staff.

41. MECHANICAL DRAWING (4).

Five hours a week, fall and spring. Laboratory fee, \$2.00. Mr. Trimble.

51. PLANE SURVEYING (4). Prerequisites, Mathematics 7 and 8, 11 and 12, or 15 and 16.

Three lecture and two field hours a week, fall and spring. Laboratory fee, \$4.00. Mr. Trimble.

62. INTRODUCTORY STATISTICS (3). Prerequisite, 6 semester hours of mathematics.

(1959-1960 and alternate years.) *Spring.* Mr. Hill.

Courses for Graduates and Advanced Undergraduates

102. ELEMENTARY ALGEBRA FROM AN ADVANCED VIEWPOINT (3). Prerequisite, Mathematics 33 or equivalent.

Designed especially for teachers, the course treats topics of algebra in a way that provides both the skill and the mathematical maturity needed for good instruction in the subject.

Spring. Mr. Mackie.

103. INTRODUCTION TO HIGHER GEOMETRY (3). Prerequisite, Mathematics 31 or equivalent.

Theorems of Ceva and Menelaus, with applications, using directed elements; ruler and compass constructions; elementary transformations; inversion; properties of triangles and circles; Feuerbach's theorem; Pascal's theorem; the nine-point circle.

Fall. Mr. Garner.

105. HISTORY OF MATHEMATICS (3).

Summer session. Mr. Garner.

110. CALCULUS OF FINITE DIFFERENCES (3). Prerequisite, Mathematics 33 or equivalent.

Finite differentiation, summation of series, relations among operators, interpolation formulas, Bernoulli's and Euler's polynomials, solution of difference equations.

Spring. Mr. Garner.

111. ELEMENTARY MATHEMATICAL STATISTICS (3). Prerequisite, Mathematics 33 or equivalent.

A course dealing with elementary theory and applications, with special emphasis on the mathematical development of frequency curves, correlation, sampling, etc.

Spring. Mr. Hill.

116. FUNDAMENTAL CONCEPTS OF MATHEMATICS WITH SPECIAL REFERENCE TO ALGEBRA (3). Prerequisite, Mathematics 33 or permission of the instructor.

Such basic concepts as the theory of sets, mappings, number systems, and algebraic structures will be treated. Topics in groups, rings, and fields will be selected from modern algebra as they have particular relevance to high school algebra.

Fall. Mr. Cameron.

117. ANALYTIC GEOMETRY FROM A HIGHER STANDPOINT (3). Prerequisite, Mathematics 33 or permission of the instructor.

Concepts of analytic geometry of the plane and of space treated projectively. Especial emphasis upon the relation to elementary algebra. Contacts with advanced mathematics, the group idea, linear equations, determinants, matrices. Linear transformation. Affine geometry. Collineations. Especially for teachers of mathematics.

Summer session. Mr. Lasley.

118. SOME CONCEPTS OF ANALYSIS (3). Prerequisite, Mathematics 33. A study of sequences, limits, functions, continuity, differentiability, infinite series, computation of tables, integrability, real numbers, complex numbers, algebraic and transcendental numbers.

Spring. Mr. Merriman.

119. TOPICS FROM GEOMETRY AND ELEMENTARY TOPOLOGY (3). Prerequisite, Mathematics 33 or permission of the instructor.

Deductive reasoning in Euclidean geometry; non-Euclidean geometry; affine geometry; order in geometry, especially the theory of betweenness on a line; congruence; introduction to some ideas in elementary topology.

Fall. Mr. Jones.

120. PROBABILITY (3). Prerequisite, Mathematics 33 or equivalent.

The concept and foundations of probability; random variables and distribution functions; expected values and moments; the binomial, Poisson, and hypergeometric distributions; normal distributions; compound events and joint distributions; limit theorems, law of large numbers, central limit theorem; applications to games of chance, statistics, theory of errors and adjustment.

Spring. Mr. Nicholson.

121. THEORETICAL AND APPLIED MECHANICS (3). Prerequisite, Mathematics 33 or equivalent.

Spring. Mr. Trimble.

131. THEORY OF EQUATIONS (3). Prerequisite, Mathematics 33 or equivalent.

Properties of polynomials in a field, equations in the rational and real number fields, elimination, resultants, symmetric functions, algebraic field extensions, and ruler and compass constructions.

Fall. Mr. Mackie.

135. LINEAR ALGEBRA (3). Prerequisite, Mathematics 33 or equivalent.

Introduction to the theory of finite dimensional vector spaces, matrices treated from the standpoint of linear transformations.

Spring. Mr. Cameron.

136. INTRODUCTION TO MODERN ALGEBRA I (3). Prerequisite, Mathematics 33 or equivalent.

Introduction to the theory of integral domains, fields, groups, and vector spaces.

Fall. Messrs. Cameron and Pettis.

137. INTRODUCTION TO MODERN ALGEBRA II (3). Prerequisite, Mathematics 136.

Elementary theory of matrices, linear groups, rings and ideals, algebraic number fields.

Spring. Messrs. Cameron and Pettis.

141. DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 33 or equivalent.

This course is designed for students specializing in mathematics and the sciences. It treats ordinary differential equations with applications in mechanics, geometry, and physics.

Fall and spring. Mr. Linker.

143. PARTIAL DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 141.

A study of some of the partial differential equations of physics and boundary problems.

(1959-1960 and alternate years.) *Spring.* Mr. Mac Nerney.

147. INTRODUCTION TO THE THEORY OF DETERMINANTS AND MATRICES (3). Prerequisite, Mathematics 33 or equivalent.

A study of the basic concepts and theorems concerning determinants and matrices.

Fall. Mr. Wall.

150. SYNTHETIC PROJECTIVE GEOMETRY (3). Prerequisite, Mathematics 33 or equivalent.

A study of forms of the first and second dimensions by synthetic methods. Projective correspondences, poles and polars, metric specializations.

Summer session. Mr. Lasley.

151. ANALYTIC PROJECTIVE GEOMETRY (3). Prerequisite, Mathematics 33 or equivalent.

Projective coordinates, projective correspondences, analytic methods applied to forms of first and second dimensions. Special emphasis upon implications in Theory of Equations and Analytic Geometry of Conics. Some line geometry.

(1959-1960 and alternate years.) *Fall.* Mr. Lasley.

161. ANALYTIC GEOMETRY OF SPACE (3). Prerequisite, Mathematics 33 or equivalent.

A study from the analytic point of view of loci in three dimensions, with special emphasis on systems of planes and on quadric surfaces.

(1958-1959 and alternate years.) *Fall.* Mr. Lasley.

163. ELEMENTARY POINT-SET THEORY (3). Prerequisite, Mathematics 33 or equivalent.

Introduction to the study of point sets on the line and in the plane with applications to the foundations of calculus and analysis.

(1958-1959 and alternate years.) *Spring.* Mr. Jones.

169. THE THEORY AND PRACTICE OF PROGRAMMING (3). Prerequisite, Mathematics 34 and 35 or equivalent.

This course emphasizes the general structure of computer programming and includes: IT language, flow diagrams, and programming in the IT language; general theory of command languages and associated algorithms; general structure of digital computers; von Neumann's Theories of Automata; artificial intelligence and learning; programming in the basic ERA-1105; arithmetic problems, interpretive programs, libraries of subroutines, etc.

Spring. Mr. Carr.

170. INTRODUCTION INTO NUMERICAL ANALYSIS (3). Prerequisite, Mathematics 33.

Interpolation formulas, numerical differentiation and integration, systems of linear equations, algebraic equations, differential equations of first and second order; Fourier-Analysis.

Summer session. Mr. Mann.

171. ADVANCED CALCULUS I (3). Prerequisite, Mathematics 33 or equivalent. Limits, continuity, differentials, power series, partial and implicit differentiation, definite and line integrals.

Fall. Messrs. Hoyle and Wells.

172. ADVANCED CALCULUS II (3). Prerequisite, Mathematics 171. Gamma and beta functions; Legendre polynomials; Bessel functions; Fourier series; Laplace's equation; harmonic functions; potential.

Spring. Messrs. Hoyle and Wells.

173. TOPICS IN APPLIED MATHEMATICS I (3). Prerequisite, Mathematics 171-172 or equivalent.

Variational methods; integral equations; integral transforms.

Fall. Mr. Mann.

174. TOPICS IN APPLIED MATHEMATICS II (3). Prerequisite, Mathematics 171-172 or equivalent.

Finite difference approximations to boundary value problems—convergence and stability criteria; theory of characteristics; iterative procedures.

(1959-1960 and alternate years.) *Spring.* Mr. Mann.

175. TOPICS IN ANALYSIS (3). Prerequisite, Mathematics 36 or equivalent. Functional dependence; infinite products and series; improper integrals; fundamental existence theorems for implicit functions and differential equations.

Summer session. Mr. Mac Nerney.

176. FUNCTIONS OF A COMPLEX VARIABLE I (3). Prerequisite, Mathematics 36 or equivalent. Mathematics 163 and 171 are recommended.

Analytic properties of the number plane, continuity and integration of functions, elementary mapping, power series, analytic continuation, and properties of analytic functions.

Fall. Mr. Mac Nerney.

177. FUNCTIONS OF A COMPLEX VARIABLE II (3). Prerequisite, Mathematics 176.

Further properties of analytic functions, residues and contours, entire functions, meromorphic functions, conformal transformations, and functions defined by infinite processes.

Spring. Mr. Mac Nerney.

178. SPECIAL FUNCTIONS (3). Prerequisite, Mathematics 176. A study of the more important properties of Bessel, Hankel, and Neumann functions; the gamma and beta functions; the hypergeometric function; surface and spherical harmonics; Legendre, Laguerre, and Hermite polynomials.

(1958-1959 and alternate years.) *Spring.* Mr. Mann.

179. SUMMABILITY (3). Prerequisite, Mathematics 172 or equivalent. Summation of divergent series by averaging processes, and generalization to the methods of Abel, Hausdorff, et al.

Summer session. Mr. Mac Nerney.

181. ELEMENTARY THEORY OF NUMBERS I (3).

An elementary course in theory of rational integers, divisibility, scales, simplest properties of prime numbers, Diophantine equations, congruences. Applications in elementary mathematics and mathematical games.

Fall. Mr. Brauer.

182. ELEMENTARY THEORY OF NUMBERS II (3). Prerequisite, Mathematics 181.

Continuation of Mathematics 181. Quadratic residues, arithmetic theory of binary quadratic forms. Recent results in elementary number theory.

Spring. Mr. Brauer.

191. VECTOR AND TENSOR ANALYSIS (3). Prerequisites, Mathematics 141 and 161 or equivalent.

Vector and tensor algebra applied to geometry and physics. Students taking this course should be familiar with ordinary differential equations and should have some knowledge of analytic geometry of three dimensions.

Fall. Mr. Hoyle.

193. MATHEMATICAL ANALYSIS I (3). Prerequisite, Mathematics 35 or equivalent.

Introductory set theory and topology in finite dimensional Euclidean spaces; continuity and differentiability of functions in these spaces; related mean-value and extremum problems.

Fall. Mr. Mac Nerney.

194. MATHEMATICAL ANALYSIS II (3). Prerequisite, Mathematics 193.

Continuation of Mathematics 193, including: connectedness and separation theorems; Riemann-Stieltjes integration; content and outer measure; Green's Theorem in Jordan regions.

Spring. Mr. Mac Nerney.

196. THEORY OF FUNCTIONS OF REAL VARIABLES I (3). Prerequisite, Mathematics 171.

The real number system; theory of measure; correspondences and transformations, differentiation.

Fall. Mr. Pettis.

Courses for Graduates

208. CONFORMAL MAPPING (3). Prerequisite, Mathematics 177 or equivalent.

Some of the modern aspects of the theory of conformal mapping, and its connections with moment problems, continued fractions, etc.

Fall. Mr. Mac Nerney.

210. INTRODUCTION TO HILBERT SPACES (3). Prerequisite, Mathematics 177 or equivalent.

Axiomatic foundations of Hilbert-type spaces; linear transformations; relationship with integral equations and infinite matrices.

Spring. Mr. Mac Nerney.

213. ELEMENTARY SPACES IN INTRODUCTORY GENERAL ANALYSIS (3). Prerequisite, permission of the instructor or graduate advisor.

Brief introductions to Boolean algebras and to spaces carrying one or more of the following structures: a partial order, a topology, and associative binary operation; some discussion of associated function spaces.

(1959-1960 and alternate years.) *Fall.* Mr. Pettis.

214. INTRODUCTION TO FUNCTIONAL ANALYSIS (3). Prerequisite,

Mathematics 213.

An introduction to Banach spaces and Banach algebras and to certain classes of function spaces.

(1959-1960 and alternate years.) *Spring*. Mr. Pettis.

226. FOUNDATIONS OF GEOMETRY (3).

A study of rigorous logic in geometry; postulates, systems of geometry, etc. Contributions of Pasch, Peano, Hilbert, Veblen, and the postulation school.

Summer session. Mr. Jones.

231. ADVANCED NUMBER THEORY OF RATIONAL INTEGERS (3). Prerequisite, Mathematics 181.

Selected problems of additive number theory and the geometry of numbers. Introduction to the analytic theory of numbers.

Fall. Mr. Brauer.

232. GENERAL THEORY OF ALGEBRAIC NUMBERS (3). Prerequisites, Mathematics 131 and 181.

Algebraic numbers and transcendental numbers; general algebraic fields; theory of ideals; discriminants and unities of algebraic fields.

Fall. Mr. Brauer.

233. NUMBER THEORY OF SPECIAL FIELDS (3). Prerequisites, Mathematics 131 and 181.

Transcendence of e and π . Number theory in Euclidean fields, quadratic, cubic, and cyclotomic fields.

Spring. Mr. Brauer.

234. SOME RECENT RESULTS IN NUMBER THEORY (3).

Spring. Mr. Brauer.

235. SOME RECENT RESULTS IN ALGEBRA (3).

Spring. Mr. Brauer.

236. HIGHER PLANE CURVES (3). Prerequisite, Mathematics 151.

Application of projective geometry to curves of degree higher than two; special types of curves; relationships; properties.

Spring. Mr. Lasley.

246. MODERN HIGHER ALGEBRA (3). Prerequisite, Mathematics 131 or 136.

A course dealing with certain fundamental aspects of modern algebra, including the topics of groups, rings, and fields.

Spring. Mr. Wall.

247. THE THEORY OF MATRICES (3). Prerequisite, Mathematics 147.

A course designed to give the student a thorough grounding in some of the recent and most important results in the study of algebraic matrices.

Spring. Mr. Wall.

261. DIFFERENTIAL GEOMETRY (3). Prerequisites, Mathematics 141 and 161.

A study of the metric differential properties of curves, surfaces, and curves on surfaces by means of differential equations.

Spring. Mr. Lasley.

267. THEORY OF FUNCTIONS OF REAL VARIABLES II (3). Prerequisite, Mathematics 196.

Functions, continuity, measurability, Riemann and Lebesgue integration, Baire classes.

Fall. Mr. Pettis.

268. ADVANCED DIFFERENTIAL EQUATIONS (3). Prerequisite, Mathematics 267 or equivalent.

Fundamental existence theorems for ordinary equations, boundary value problems, applications to classical problems of mathematical physics.

Spring. Mr. Whyburn.

281. GENERAL TOPOLOGY I (3).

A general introduction to point-set theoretic methods and axiomatic foundations.

(1959-1960 and alternate years.) *Fall.* Mr. Jones.

282. GENERAL TOPOLOGY II (3). Prerequisite, Mathematics 281.

A continuation of Mathematics 281.

(1959-1960 and alternate years.) *Spring.* Mr. Jones.

283. GENERAL TOPOLOGY III (3). Prerequisite, Mathematics 282.

A continuation of Mathematics 282.

(1958-1959 and alternate years.) *Fall.* Mr. Jones.

284. GENERAL TOPOLOGY IV (3). Prerequisite, Mathematics 283.

A continuation of Mathematics 283.

(1958-1959 and alternate years.) *Spring.* Mr. Jones.

291. THEORY OF GROUPS (3). Prerequisite, Mathematics 136 or equivalent.

Properties of abstract groups, groups with operators, homomorphism, composition series, the Sylow theorems, direct sums, K-modules, and Abelian groups.

Fall. Mr. Cameron.

297. GALOIS THEORY (3). Prerequisite, Mathematics 291.

Theory of fields, Galois theory, ideals, and other topics in modern algebra.

Spring. Mr. Cameron.

298. THE THEORY OF ALGEBRAS (3). Prerequisite, Mathematics 246 or 291 or equivalent.

The study of finite dimensional algebras, including: representation theory, the regular representations, structure theory, the Wedderburn Theorems, duality theory, and the theory of modules.

Fall. Mr. Wall.

SEMINARS AND THESES (3).

351, Mr. Whyburn; 352, Mr. Mac Nerney; 356, Mr. Lasley; 357, Mr. Jones; 361, Mr. Pettis; 366, Mr. Browne; 367, Mr. Garner; 371, Mr. Wall; 372, Mr. Hoyle; 376, Mr. Mackie; 377, Mr. Hill; 381, Mr. Brauer; 382, Mr. Cameron; 387, Mr. Mann.

DEPARTMENT OF MUSIC

Professors: GLEN HAYDON,¹ EARL SLOCUM, J. P. SCHINHAN,² W. S. NEWMAN

Visiting Professor: NATHAN BRODER

Associate Professors: WILTON MASON, JOEL CARTER, EDGAR ALDEN

Assistant Professor: GLENN WATKINS

Instructor: HERBERT W. FRED

Graduate Assistants: MARY GRAY CLARKE, PAUL GENE STRASSLER, LILIAN PRUETT,
CALVIN HUBER, EARL GATES, WILLIAM SASSER, LEE BOSTIAN, BRIAN KLITZ, CAROLINE SITES

Assistants: SUZANNE PARKER, RICHARD SAYLOR, EDGAR STRYKER

The courses in music are designed to serve four purposes in the University: (a) to provide thorough training in the practice, literature, theory, and history of music for the student who elects music as his major subject in the liberal arts curriculum leading to the A.B. degree; (b) to provide a solid foundation for the student who wishes to do graduate work in the more scholarly, technical, or creative aspects of music; (c) to provide the essential background in professional and allied subjects for the student who chooses to teach music or follow some related career; and (d) to provide students in other departments with elective courses in music designed to add cultural value and enjoyment to the general liberal arts program.

Course leading to the A.B. degree with music as the major: Students who take music as the major will modify the regular program for the first two years in order to begin music their first year. They normally will take English 1, 2, a foreign language, Music 11-12 and 14-15, and mathematics or Latin or Greek. Courses in the regular freshman program postponed to make way for the music courses are taken at some later time. Similar arrangements will be made in the sophomore year to provide for Music 31-32, 44-45, and 47-48.

The undergraduate major in music consists of from eighteen to twenty-four semester hours beyond the freshman-sophomore requirements and includes Music 48, 61, 64, 71, 74, and 101. Attention is called to the special requirements in applied music as stated on page 341.

Course leading to the A.B. in Education degree with music as the major: Candidates for the A.B. degree in liberal arts with music as the major may qualify for state certification in public school music by taking certain additional courses in general education and music education. These courses ordinarily require one additional semester of work, or one summer of work during the four years. As an alternative the student may qualify for state certification in the usual eight semesters by taking an A.B. in Education (see pages 166-73) with music as the major. In either case, requirements for the major are the same. At the beginning of the junior year the student must decide

1. Absent on Kenan leave, fall semester, 1958-1959.

2. Professor, Emeritus.

whether he will elect the A.B. or the A.B. in Education program. Individual requirements in the curriculum are worked out in conference with the student's advisers in music and in education.

Honors in Music: Students interested in becoming candidates for the A.B. degree with honors in music should read the general regulations governing the honors program in the Division of Humanities and should consult the chairman of the Department of Music for specific modifications of this program as applied to music.

Course leading to the B.M. degree: The department offers the B.M. degree to students meeting the applied music requirements in conformity with the National Association of Schools of Music. This degree is awarded in conjuncture with or after the A.B. degree in a five year program. Students must satisfy the requirements for this degree by giving such public recitals and by passing such examinations as may be specified by the department. Students interested in this degree should apply to the Department of Music for particulars.

Courses for Undergraduates

4. FUNDAMENTALS OF MUSIC FOR ELEMENTARY TEACHERS³ (3).

A basic music course for prospective classroom teachers other than music majors. Includes rudiments of music, the child voice, vocal and instrumental materials, rhythm band and simple melody instruments, and observation.

One lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$1.00. Mr. Carter.

11-12. NOTATION, SIGHT-SINGING, AND DICTATION (1½ each). No prerequisite.

An introductory course, intended to provide a working knowledge of rhythms, intervals, scales, and the common terminology of music, with attention to styles and literature.

Three laboratory hours a week, fall and spring. Messrs. Carter and Watkins.

14-15. HARMONY (3 each). Prerequisite or corequisite, Music 11-12.

A first course in the elements of musical composition, including triads, inversions, seventh chords, dominant dissonances, non-harmonic tones, modulation, keyboard harmony, and short compositions.

Fall and spring. Mr. Watkins.

31-32. NOTATION, SIGHT-SINGING, AND DICTATION (1 each). Prerequisite, Music 11-12. Continuation of Music 11-12, with work in clef-reading, rhythm, intervals, chords, and melodies, utilizing practical exercises from musical literature.

Two laboratory hours a week, fall and spring. Mr. Slocum.

41. MUSIC APPRECIATION³ (3). No prerequisite.

An introduction to musical understanding, emphasizing elements, styles, and forms. Integrated with the other arts and the humanities in general. Lectures, readings, recordings, and concerts.

Fall and spring. Fee, \$1.00. Messrs. Newman and Carter.

3. Not offered to music majors.

44-45. **ADVANCED HARMONY** (3 each). Prerequisite, Music 11-12, Music 14-15, corequisite 31-32.

A continuation of Music 14-15, including chromatic harmony, advanced modulation, and newer harmonic resources.

Fall and spring. Mr. Alden.

47, 48. **THE HISTORY OF MUSIC** (3 each).

Survey from the origins to 1600, and from 1600 to the present. Includes readings, individual reports, films, recordings, and demonstrations in the various style periods.

Fall and spring. Mr. Mason.

55. **MUSIC APPRECIATION: OPERA AND ORATORIO**⁴ (3). No prerequisite.

An introductory course for the layman, centered around opera and oratorio in local concerts, current radio and television programs, and new record releases.

Fall. Fee, \$1.00. Mr. Alden.

56. **MUSIC APPRECIATION: SYMPHONY AND CHAMBER MUSIC**⁴ (3). No prerequisite.

An introductory course for the layman, based on the styles and literature of instrumental music from Haydn to the present day. Illustrated through concerts, radio, television, and recent recordings.

Spring. Fee, \$1.00. Mr. Alden.

61. **MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE** (3). Prerequisite, Music 14-15.

Study and practice of vocal contrapuntal technique of the sixteenth century, with exercises in the five species and composition of simple motets.

Fall. Mr. Watkins.

64. **TONAL COUNTERPOINT** (3). Prerequisite, Music 14-15.

Study and practice of eighteenth-century contrapuntal technique, with particular reference to the style of Bach. Writing of two- and three-part inventions.

Spring. Mr. Slocum.

71. **ORCHESTRATION AND ELEMENTARY CONDUCTING** (3). Prerequisite, Music 44-45.

The study of instrumental ranges and techniques. Arranging for orchestra, band, and other instrumental ensembles. Practical experience in baton technique.

Fall. Mr. Slocum.

74. **ANALYSIS AND COMPOSITION IN THE SMALLER FORMS** (3). Prerequisite, Music 44-45.

Examination of representative Classic and Romantic works. Practical experience in the writing of binary, ternary, and rondo forms.

Spring. Mr. Slocum.

Courses in Music Education

Attention is called to the Music Education courses listed on page 169 in this catalogue as Education 75, 76, 78, 79.

4. Not offered to music majors.

Courses for Graduates and Advanced Undergraduates

101, 102. INTRODUCTION TO MUSICOLOGY (3 each). Prerequisites, one foreign language and some proficiency in musical theory and performance.

101 includes especially acoustics, psychology, and aesthetics in music. 102 emphasizes theories of music theory, pedagogy, comparative musicology, and music history. Musical bibliography is stressed in both courses.

Spring and fall. Mr. Haydon.

104. FOLK MUSIC (3).

Comparative study of the folksongs of European nations and the United States (especially the Southern regions). Lectures, readings, and the study of printed or recorded music.

Fall. Mr. Mason.

121, 122, 123. STUDIES IN THE HISTORY OF MUSIC (3 each). Prerequisites, Music 45, 47, and 48.

Investigation of a particular aspect or phase of music history such as opera, performance practices, Ravel and Debussy, or the Baroque era.

121, 123, *fall*; 122, *spring*. Messrs. Newman, Mason, and Alden.

Courses for Graduates

201. SPECIAL STUDIES.

The department is ready to assist and advise competent graduate students who may propose plans for either research or creative work which meet with its approval.

Hours and credit to be arranged. Staff.

204. INTRODUCTION TO COMPARATIVE MUSICOLOGY⁵ (3). Prerequisites, Music 101-102; a reading knowledge of one or more foreign languages, preferably German, French or Spanish; and permission of the instructor.

Methodology used in the study of the musical language of primitive cultures including the American Indians.

Spring, on demand. Mr. Mason.

214. APPLIED HARMONY (3).

The logic of chordal progressions as applied to musical compositions.

Fall. Mr. Watkins.

261. ADVANCED MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE (3).

A study of the vocal works of Palestrina, Lassus, and other sixteenth-century composers, with practical exercises in the composition of motets and masses.

Fall. Mr. Mason.

264. ADVANCED TONAL COUNTERPOINT (3).

A study of canon and fugue, with special emphasis on the works of Bach. Includes practical exercises in these forms.

Fall. Mr. Slocum.

271. ADVANCED ORCHESTRATION (3). Prerequisites, Music 214, 261, 264.

Spring. Mr. Slocum.

274. ADVANCED COMPOSITION (3). Prerequisites, Music 214, 261, 264.

Spring. Staff.

5. Will be given as demand warrants.

299. THESIS.

Fall and spring. Staff.

301, 302, 303. SEMINAR IN MUSICOLOGY (3 each).

Research, both historical and systematic, as applied to a specific era, style, form, composer, or other branch of musical knowledge.

301, *fall*; 302, 303, *spring*. Messrs. Haydon, Broder, and Watkins.

Applied Music Requirements

The courses in applied music are open to students in any department of the University. This work is regarded not only as technical training in performance, but also as a comprehensive survey of the standard literature for the particular instrument or ensemble group. Credit is based primarily on the stage of advancement and the number of lessons and hours of practice a week. Credits to meet the requirements for high school teachers' certificates are reckoned on the basis of 1½ semester hours for one lesson a week per semester.

For those whose major is not music a total credit not to exceed six semester hours may be counted under electives in the A.B. curriculum. Those whose major is music will offer at least eight semester hours in applied music but not over sixteen semester hours in this field, of which not more than eight may be ensemble courses. All students with majors in music, unless given special permission by the chairman of the department, continue individual instruction in applied music throughout the four years. Students planning to teach instrumental music in the public schools will arrange their schedules for the study of the wind and stringed instruments in consultation with the department.

The general prerequisite for entrance into the first-year courses is the ability to perform music rated as grade three for the particular instrument. A specific course of study for any instrument will be sent upon request. Students who are not yet at grade three level will repeat the preparatory course without credit until they qualify for the freshman course. The candidate for the A.B. degree with a major in music must complete as a minimum the freshman course in his chosen field of applied music. Students electing some instrument other than piano for their work in applied music must demonstrate sufficient pianistic ability to enable them to meet the practical requirements of the course to be pursued. This is interpreted to mean the ability to play at sight hymns or compositions of similar difficulty, and to utilize the basic techniques of keyboard harmony.

Students majoring in music for an undergraduate degree are required to participate in appropriate musical organizations of the department and their scheduled concerts, and to attend the weekly student recitals.

FEES

Fees of individual instruction are: \$33.75 per semester for one lesson a week; \$67.50 per semester for two lessons a week. Fee for one daily practice period (room with piano), \$5.50 per semester; for two hours daily practice, \$9.50 per semester. Other fees in proportion. Fee for six hours practice a week on Reuter four-manual organ, \$28.25 per semester; on Allen or Reuter practice organ, \$22.50 per semester; on Estey practice organ, \$11.25 per semester. Arrangements for applied music are made in the office of the Department of Music on the second day of regular registration and the day following.

INDIVIDUAL INSTRUCTION

A. PREPARATORY ORGAN (no credit).

One or two half-hour lessons and six or twelve hours of practice a week, every semester. Messrs. Watkins and Bostian.

1A-2A. FIRST-YEAR ORGAN ($\frac{1}{2}$ or 1). Prerequisite, ability to play music for a keyboard instrument of the difficulty of Heller, Op. 45, 46, 47; Bach, Two-Part Inventions; scales and arpeggios in moderate tempo; simple hymns (at sight).

Value, one-half or one semester hour, respectively, for one or two lessons and six or twelve hours of practice a week. Mr. Watkins.

21A-22A. SECOND-YEAR ORGAN ($\frac{1}{2}$ or 1). Prerequisite, Music 1A-2A.

Value and hours as in 1A-2A. Mr. Watkins.

51A-52A. THIRD-YEAR ORGAN ($\frac{1}{2}$ or 1). Prerequisite, Music 21A-22A.

Value and hours as in 1A-2A. Mr. Watkins.

81A-82A. FOURTH-YEAR ORGAN ($\frac{1}{2}$ or 1). Prerequisite, Music 51A-52A.

Value and hours as in 1A-2A. Mr. Watkins.

91A-92A. FIFTH-YEAR ORGAN (3 each). Prerequisite, Music 81A-82A. Required of candidates for the B.M. degree.

Similar numbering and description with regard to value, hours and prerequisite work apply to each of the courses B, C, D, and E.

B. PIANO. Messrs. Newman, Mason, Sasser, Bostian, Stryker, Gates, Miss Sites, and Mrs. Pruett.

C. VOICE. Messrs. Carter, Strassler, and Klitz.

D. VIOLIN OR OTHER STRINGED INSTRUMENT. Mr. Alden, Mrs. Parker, and Miss Clarke.

E. FLUTE OR OTHER BAND OR ORCHESTRAL INSTRUMENT. Messrs. Haydon, Slocum, Fred, Huber, Klitz, and Saylor.

CLASS INSTRUCTION

For students desiring to complete the general piano requirements, for those in the general instrumental course, and for those wishing special training in voice, class instruction will be offered as far as practicable. Applications for admission to any of these classes should be made at the office of the Department of Music as soon after registration as possible. Hours to be arranged.

ENSEMBLE GROUPS

1F-2F. FIRST-YEAR BAND ($\frac{1}{2}$ each). Prerequisite, approval of instructor based upon an audition given at the beginning of each semester.

A minimum of two hours a week through one semester. Messrs. Fred, Gates, and Huber.

21F-22F. SECOND YEAR BAND ($\frac{1}{2}$ each).

Value and hours as in 1F-2F. Messrs. Fred, Gates, and Huber.

51F-52F. THIRD-YEAR BAND ($\frac{1}{2}$ each).

Value and hours as in 1F-2F. Messrs. Fred, Gates, and Huber.

81F-82F. FOURTH-YEAR BAND ($\frac{1}{2}$ each).

Value and hours as in 1F-2F. Messrs. Fred, Gates, and Huber.

Similar numbering, prerequisite work, value, and hours apply to each of the following courses in applied music:

G. ORCHESTRA. Messrs. Slocum and Alden.

H. GLEE CLUB. Mr. Carter.

I. PIANO ENSEMBLE OR OTHER INSTRUMENTAL ENSEMBLE. Staff.

J. CHORUS. Mr. Mason.

K. SYMPHONIC WIND ENSEMBLE. Mr. Fred.

 DEPARTMENT OF NAVAL SCIENCE

Professor: CARL TIEDEMAN, *Captain*, USN

Associate Professor: E. L. FOSTER, *Commander*, USN

Assistant Professors: L. C. NORTON, *Major*, USMC; RONALD D. BARTLETT, *Lieutenant Commander*, USN; C. P. BARNES, *Lieutenant*, USN; H. R. HUMPHREY, *Lieutenant*, Supply Corps, USN; R. F. LEHR, *Lieutenant*, USN; A. A. CLEGG, *Lieutenant (junior grade)*, USNR

Administrative: JAMES H. DAVENPORT, QMC, USN; JAMES A. ADAMS, JR., FTC, USN; JOE H. DILLESBROW, GMC, USN; ARTHUR E. VOSS, MSGT, USMC; BILLY D. BUCKNER, YMC, USN; FLOYD K. MCINTOSH, SKI, USN

The Naval Reserve Officers Training Corps

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war. It is upon the maintenance of this control that our country's future depends.

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and future. At home or on distant stations the Navy serves with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; Our adversities strengthen us; Service to God and country is our special privilege. We serve with honor.

In order to provide an additional source of highly qualified officers for the Naval service, Congress in 1926 authorized the formation of a Naval Reserve Officers Training Corps. The NROTC is a military organization administered and operated by the Department of the Navy. A unit of the NROTC was established at the University of North Carolina in 1941 under the provisions of Public Law 729 which authorizes such units at fifty-three colleges and universities throughout the United States.

The Commanding Officer of the NROTC unit is the direct representative of the Department of the Navy on the campus and as such is the principal advisor to the Chancellor and the President of the University on all naval matters. In addition to his military duties, the Commanding Officer serves in the academic capacity of professor and chairman of the Department of Naval Science. He is assisted in his military duties by the staff of the Department of Naval Science.

The purpose of the NROTC is to provide an additional source of highly qualified officers for the Naval service. Students who obtain a baccalaureate degree in approved subjects, and who satisfactorily complete the required course of study in Naval Science and participate in the summer training cruises, may be commissioned in the Navy or the Marine Corps or their reserve components.

Students are enrolled in the NROTC in two categories; regular and contract.

a. *Regular*: For more than a century career officers in the Naval service received their education and professional training at the U. S. Naval Academy at Annapolis. Today, this source of career officers is insufficient to meet the needs of a modern Navy. The Navy looks, therefore, to the NROTC program in civilian universities as an additional source of highly qualified career-minded officers. With the expanding responsibilities of the Fleet, it is expected that fifty percent of the Navy's full-time, career officers will come from this source.

Outstanding high school graduates who are giving consideration to a career in the regular Navy or Marine Corps are eligible to compete in a nation-wide competitive examination and selection process. Such students are called *regular* NROTC students. They are commissioned in the officer rank of Midshipman, United States Naval Reserve and are retained in an inactive status while in the NROTC. In anticipation of their future services as career officers in the Naval service the government pays the full cost of the regular student's tuition and fees, and provides all required textbooks and uniforms. In addition, they receive retainer pay of \$600 per year, or \$2,400 during their four years in the NROTC program. It should be emphasized that *this is not a "scholarship" program*. The above mentioned sub-

sides are provided for the primary purpose of assisting in the education of those students who are giving serious thought to becoming career officers in the Navy and Marine Corps.

b. *Contract*: The purpose of this program is to provide a source of highly qualified officers for the Reserve components of the Navy and Marine Corps who will be readily available to serve their country in time of emergency. Outstanding high school graduates who are interested in serving their country as reserve officers are selected not by competitive examination but by the Commanding Officer of the NROTC unit from among the students of the entering freshman class at the beginning of the fall semester.

The selection of contract students is completed during the first week of the fall semester. Since the number of students that can be selected is limited, those who desire to be considered for the NROTC program should apply prior to the first day of classes in the fall, preferably during the freshman pre-registration period in August. An application is not binding, and even after enrollment in the program a contract student may withdraw without prejudice upon his own request at any time within the first two years.

Students desiring to enter this program are not commissioned Midshipmen, USNR as are the regular students, but instead enter into a mutual *contract* with the Secretary of the Navy (thus the name contract student). They obligate themselves to take certain Naval Science courses and one summer training cruise. In return, the Navy provides the required uniforms and, during the junior and senior years, an allowance of about \$27.00 per month. Upon the awarding of a baccalaureate degree in an approved subject the Navy offers a reserve commission in the Navy or the Marine Corps.

Regardless of the source of enrollment in the NROTC, all students are considered as Midshipmen, receive the same instruction, wear the same uniforms, and are equally subject to the discipline of the Battalion of Midshipmen.

Midshipmen who are unsuccessful in school after entry in the program, whether due to scholastic failure, inaptitude, misconduct, failure to maintain the high physical standards, or other reasons, will be separated from the program.

General Eligibility Requirements

All candidates for the NROTC must:

1. Be a male citizen of the United States.
2. At the time of his enrollment, if a minor, have the consent of his parent or guardian.

3. Be not less than seventeen nor more than twenty-one years of age on July 1 of the year in which he enters the program. (Contract student may be enrolled if sixteen years of age on July 1 of the year in which he enters the program.)
4. Gain his own admittance to the University.
5. Agree to remain unmarried until commissioned.
6. Enter into a contract with the Secretary of the Navy, agreeing to accept a commission, if offered.
7. Be physically qualified, in accordance with the requirements for the U. S. Naval Academy.
8. If a contract student, agree to accept a commission as an ensign, U. S. Naval Reserve or second lieutenant, U. S. Marine Corps or U. S. Marine Corps Reserve, and serve two years on active duty upon completion of college training, if called by the Secretary of the Navy.
9. If a regular student, agree to accept a commission, if offered, and to serve at the pleasure of the President as an ensign, U. S. Navy, or second lieutenant, U. S. Marine Corps. The present minimum tour of active duty is four years.

Special Academic Requirements for NROTC Students

Students enrolled in the NROTC program must pursue a course leading to a baccalaureate degree in a major field approved by the Professor of Naval Science. Because the needs of the Naval service require that all newly commissioned officers be ordered to active duty immediately following graduation, students in the NROTC program should not plan to enroll in curricula requiring graduate work such as premedical, pre dental, theological, etc. Nor should NROTC students plan to do graduate work leading to a master's or doctor's degree until after completion of their active duty.

In addition to taking the required courses in Naval Science, all Regular Midshipmen must satisfactorily complete one year of college mathematics and one year of college physics by the end of their sophomore year. They must achieve proficiency in written and oral expression in English, meeting the standards established by the University.

Contract students, in addition to taking the required courses in Naval Science must satisfactorily complete mathematics through trigonometry by the end of the sophomore year, and must achieve proficiency in written and oral expression in English, meeting the standards established by the University. If a contract student has completed mathematics through trigonometry in secondary school, and if this is not required by the University for his course, additional mathe-

matics is not required under the program. Physics is not *required* for contract students; however, it is *highly desirable* if the academic schedule permits.

Military Status

Each NROTC Midshipman takes Naval Science courses in addition to the normal studies leading to a baccalaureate degree. Otherwise, students appointed to the NROTC lead approximately the same life as their civilian contemporaries. They make their own arrangements for board and lodging. Likewise, they may pursue any of the University extra-curricular activities which do not interfere with their Naval Science requirements. They may obtain outside employment on this same basis, provided they are able to maintain concurrently the high scholastic requirements. They wear the uniform when attending drills and other ceremonies, and while engaged in the summer training cruises. In addition to the ordinary requirements of gentlemanly conduct, they are subject to naval discipline and must conduct themselves in a military manner at all times while under naval jurisdiction, while attending Naval Science classes, drills, and exercises, and during summer training periods.

Draft Deferment

A student enrolled in the Naval R.O.T.C. will be deferred from the draft (Selective Service of 1948 and Universal Military Training Act of 1951) if:

1. He pursues the Naval R.O.T.C. courses for four full years, including the summer training period applicable to his status as contract or regular student.
2. As a contract student, he signs an agreement to accept a commission, if tendered, to retain this commission for a period of six years and to serve not less than two years on active duty as an officer, if called by the Secretary of the Navy.
3. As a regular student, he signs an agreement to accept a commission, if tendered, to retain this commission for a period of six years and to serve not less than four years on active duty as an officer, if called by the Secretary of the Navy.

Summer Training

Regular students: All regular students are required to take two summer cruises and one summer period of aviation-amphibious indoctrination, usually of eight weeks' duration each. The cruises are made on board modern warships. The aviation indoctrination is usually conducted at Corpus Christi, Texas, and the amphibious indoctrination is usually conducted at Little Creek, Virginia.

Contract students: Contract students are required to take one summer cruise during the summer between their junior and senior years, the cruise being approximately six weeks' duration.

Travel expenses for both regular and contract students from the University to the summer training site and return are furnished by the government. In addition, all students receive active duty pay during summer training amounting to approximately \$75.00 per month in the case of contract students and \$110 per month in the case of regular students.

Emoluments

Regular students: For regular students the cost of tuition, fees, and textbooks is paid by the government. Necessary uniforms are provided and students receive retainer pay at the rate of \$600 per year, or \$2,400 over four years.

Contract students: Contract students receive no emoluments during the first two years in the program. During the last two years they receive a subsistence allowance which amounts to approximately \$27.00 a month. They are issued the necessary uniforms and Naval Science textbooks at no expense.

Military Status on Graduation

Regular students: Upon satisfactory completion of Naval Science and baccalaureate degree requirements, each Midshipman, although a Reserve in the University, is commissioned as a Regular officer in the Navy or Marine Corps. Depending upon the needs of the Naval service at the time, graduates of the Regular N.R.O.T.C. are commissioned as Ensigns in the Line of the Navy, as Second Lieutenants in the U. S. Marine Corps, or as Ensigns in one of the Staff Corps of the Navy. Each graduate indicates his preference as to branch in which he desires to be commissioned, subject to meeting the professional and physical requirements for that branch. The great majority of graduates are, of course, commissioned in the Line of the Navy, although preferences are honored to the maximum possible extent. While it is expected that regular students will choose a career in the Naval service, the present minimum tour of active duty is four years.

Contract students: After completion of their academic requirements for a baccalaureate degree and the four years of Naval requirements, which include the summer training, contract students are commissioned as ensigns in the U. S. Naval Reserve or second lieutenants in the U. S. Marine Corps or the U. S. Marine Corps Reserve. Present policy calls for each contract student to serve two years active duty.

Opportunities for Service in the Fleet

Ships-of-the-Line

The officers of the Line of the Navy are those who are unrestricted as to type of duty assignment, and eligible for command at sea and ashore. The unrestricted Line officer will be assigned to duty in surface ships, and upon his request and additional training, in aircraft and submarines. The new Ensign reporting to the Fleet for his first tour of duty at sea will gain a broad knowledge of the many skills that must be mastered by a Line officer through a program of rotation that puts him for several months at a time in each of the principal departments of the ship. He will learn, through this rotation of duty, that a Line officer must be a leader of men and be conversant with navigation, engineering, communications, gunnery, and in fact, every phase of shipboard operations, if he is to successfully exercise command.

Aviation

A newly commissioned officer in the Line of the Navy may, if physically qualified and he so requests, be ordered directly to flight training. If his application for flight training is approved, the officer will be ordered to the U. S. Naval Air Station, Pensacola, Florida, to undergo a program of flight instruction which is recognized as the finest in the world. Successful completion of this course leads to designation as a Naval Aviator. The aviator's career pattern parallels in general that of all other unrestricted Line officers with emphasis on aviation assignments.

Submarine Training

After graduation, commissioning, and experience at sea, a Line officer may request submarine training. If qualified he is ordered to the Submarine School at New London, Connecticut, and upon completion of the training program, he is ordered to duty in the submarines of the Fleet.

Marine Corps

The U. S. Marine Corps is an integrated part of the Naval service, administered by the Commandant, Marine Corps. A career in this Corps is open to a limited number of graduates of the Regular NROTC Program, who are commissioned as Second Lieutenants and are usually sent for their first duty assignment to the Marine Corps Basic School at Quantico, Virginia. After the required indoctrination each officer is transferred to general duty, in the course of which he may serve in ships of the Navy or ashore at home and abroad, in infantry, artillery, communications, engineering, or at naval bases. The Marine Corps has a postgraduate educational system similar in or-

ganization and objectives to that of the Navy, and Marine officers selected for aviation are trained in exactly the same manner as their counterparts in the Navy.

Staff Corps

Upon their own application, a limited number of officers may, at graduation or later in their careers, become officers of either the Supply Corps or the Civil Engineer Corps of the Navy. Like those commissioned in the Marine Corps, these officers are sent to special schools organized to prepare them for their chosen specialties. Although not eligible for command at sea, officers of these staff corps may rise to command of units or activities under the cognizance of their respective corps entailing great authority and responsibility.

Duty Assignments

After the young officer has completed his first period of sea duty he may be ordered ashore in any one of various assignments in the career pattern of training. The types and locations of shore duty in the Navy are numerous. In addition to the many postgraduate schools, an officer may be assigned duty as a naval attache in foreign lands; he may have duty in one of the bureaus in the Navy Department in Washington; he may serve in a research establishment; he may have duty in one of our Recruit Training Centers; or he may be assigned to one of our many Naval Reserve Officers Training Corps Units in colleges and universities throughout the country. As an officer advances in experience and rank, he is assigned duties of greater responsibility and authority both at sea and ashore.

Curriculum

The curriculum of the Department of Naval Science is designed to provide the student with a broad academic and professional background in appropriate naval subjects and to create an appreciation and understanding of the importance of Sea Power in our national life. To achieve the full scope of this objective and to avoid a narrowly specialized technical education, the courses listed below are drawn from all of the major disciplines of the liberal arts: the humanities, the social sciences, and the natural sciences.

The University of North Carolina does not grant a degree in Naval Science. Students majoring in other areas may elect Naval Science courses and are governed by the rules of the appropriate division regarding the distribution of such courses among departmental, divisional, and non-divisional courses. All students take the same basic courses in the first two years. In the junior and senior years students who desire to apply for commissions in the Marine or Supply Corps

may elect those courses so designated. Course numbers with an M suffix are designed for Marine Corps and those with an S suffix are for Supply Corps.

Academic instruction is supplemented by two laboratory periods per week designed to give practical application to theoretical concepts and to provide familiarity with the special procedures, methods, materials, and equipment of the Naval service.

The courses in Naval Science are open to all students of the University. Students who are not members of the Naval Reserve Officers Training Corps, however, must obtain permission of the chairman of the department before registering.

N.S.101. THE EVOLUTION OF SEA POWER, I (3).

A study of Naval customs and traditions; the role of the Naval establishment in national security. Introduction to the fundamental principles of sea power and its use as an instrument of national policy.

Three lecture and two laboratory hours a week, fall. Lt. (jg) Clegg.

N.S.102. THE EVOLUTION OF SEA POWER, II (3).

History of sea power. Analysis of the principles of sea power in terms of their historical development in the Mediterranean, Atlantic, Pacific, and polar regions. The influence of sea power upon history.

Three lecture and two laboratory hours a week, spring. Lt. (jg) Clegg.

N.S.201. NAVAL WEAPONS, I (3).

Fundamentals of modern weapons systems and their role in commanding the sea. Relates principles of physical sciences and mathematics to Naval ordnance design and use, to electronic detection devices, jet and rocket propulsion, missile control systems, electronic and inertial guidance systems, nuclear explosions.

Three lecture and two laboratory hours a week, fall and spring. Lt. Barnes.

N.S.202. GENERAL PSYCHOLOGY (Psychology 26) (4).

A general survey of the field of psychology as a behavioral science presented through lecture, demonstration, and laboratory work.

Three lecture and two laboratory hours a week, fall and spring. Civilian members of the University faculty.

N.S.301. PRINCIPLES OF NAVAL ENGINEERING (3).

Thermodynamic principles and their application; Naval engineering equipment and systems; the physics of nuclear power; theoretical damage control and ship stability.

Three lecture and two laboratory hours a week, fall. Lt. Lehr.

N.S.301M. EVOLUTION OF THE ART OF WAR (3).

Evolution of the art of war from Alexander through Korea with particular emphasis on the effects of this evolution upon the social and historical patterns of the world.

Three lecture and two laboratory hours a week, fall. Maj. Norton.

N.S.301S. NAVAL SUPPLY (3).

Introduction to the Navy's supply system and its business executives, the Supply Corps Officers, who coordinate its functions. Emphasizing organization, inventory control, mobile logistics and principles of naval accounting.

Three lecture and two laboratory hours a week, fall. Lt. Humphrey.

N.S. 302. NAVIGATION AND NAUTICAL ASTRONOMY (3).

A study of the sciences and mathematical skills involved in the computation of navigation problems and in the development of methods, instruments, tables, and almanacs. Four major subdivisions: (1) dead reckoning, (2) piloting, (3) electronic navigation, (4) celestial navigation.

Three lecture and two laboratory hours a week, spring. Lt. Cdr. Bartlett.

N.S. 302M. MODERN BASIC STRATEGY AND TACTICS (3).

An historical and sociological review of the foreign policy of the United States as a basic insight into the theoretical principles of national strategy and modern military tactics.

Three lecture and two laboratory hours a week, spring. Major Norton.

N.S. 302S. NAVAL SUPPLY (3).

Logistical support of fleet units with insight into the phases of procurement, storage, and distribution of material afloat.

Three lecture and two laboratory hours a week, spring. Lt. Humphrey.

N.S. 401. NAVAL OPERATIONS (3).

Principles of shipboard operations, theory of relative motion, aerology and meteorology, methods of fleet communication, concepts of operational and administrative staff planning. Fundamentals of basic Naval tactics and maneuvers.

Three lecture and two laboratory periods a week, fall. Lt. Cdr. Bartlett.

N.S. 401M. AMPHIBIOUS WARFARE (3).

History of amphibious warfare with emphasis on strategic decisions concerning the use of amphibious attacks.

Three lecture and two laboratory periods a week, fall. Maj. Norton.

N.S. 401S. NAVAL SUPPLY (3).

The management of ship's stores including all aspects of Navy retail merchandising. Management of general messes and the distribution of food supplies with emphasis on preparation and service of food.

Three lecture and two laboratory hours a week, fall. Lt. Humphrey.

N.S. 402. PRINCIPLES AND PROBLEMS OF LEADERSHIP (3).

A study of the principles and techniques which will assist the newly commissioned officer in performing his leadership functions in the Navy; including his moral and professional responsibilities at the Division Officer and Department Head level.

Spring. Lt. Cdr. Bartlett.

N.S. 402M. LEADERSHIP, AMPHIBIOUS WARFARE, MILITARY JUSTICE (3).

Principles of military leadership. Application of the principles of amphibious warfare in selected examples in modern history. Principles and procedure in administering military law. Principles of military leadership.

Three lecture and two laboratory hours a week, spring. Major Norton.

N.S. 402S. NAVAL LEADERSHIP, LOGISTICS, MILITARY JUSTICE (3).

Principles of Naval Leadership. Administration of the Navy's clothing program. Principles and procedures in administering military law.

Three lecture and two laboratory hours a week, spring. Lt. Humphrey.

DEPARTMENT OF PATHOLOGY¹

Professors: K. M. BRINKHOUS, J. B. BULLITT,² J. B. GRAHAM

Visiting Professor: H. Z. LUND

Associate Professors: G. D. PENICK, M. C. SWANTON

Assistant Professors: W. R. BENSON, W. W. FORREST, R. D. LANGDELL, R. H. WAGNER

Instructors: J. U. GUNTER, W. D. HUFFINES, N. F. RODMAN

Residents: L. W. BOWERSOX, W. M. BRANNAN, A. S. LINEBERGER, S. W. NYE

Fellows: W. W. McLENDON, J. D. GERATZ

Interns: L. R. BEAM, M. CAMPANO, J. C. PICKREL, J. L. WINSTEAD

Student Research Assistants: W. B. DEAL, P. F. HARRIS, L. K. JACKSON, R. G. MASON,
W. D. McLESTER, M. THELIN, R. A. WEAVER

Courses for Undergraduates

52. CLINICAL PATHOLOGY (3). Prerequisites, general chemistry and one course in zoology.

A course designed to give undergraduate students an introduction to hematology, urinalysis, and some of the technical procedures commonly employed in hospital and biological research laboratories.

One lecture and four laboratory hours a week, spring semester. Drs. McLendon and Brannan.

Courses for Graduates and Advanced Undergraduates

161ab. PATHOLOGY (12 2/3). Prerequisites, anatomy, histology, physiology, biochemistry.

Four lecture and eleven laboratory hours a week, fall and winter quarters. Staff.

162 (I). SURGICAL PATHOLOGY. Prerequisite, Pathology 161ab.

A detailed study of surgical material, with special reference to tumors.

162 (II). EXPERIMENTAL PATHOLOGY. Prerequisites, physiology and biochemistry.

Production of various inflammatory lesions and other pathological processes (edema, hemorrhage, ischemia, jaundice, urinary obstruction, etc.), and study of their development.

162 (III). RESEARCH IN PATHOLOGY. Prerequisites, physiology and biochemistry.

NOTE: Hours, credits, and instructor for courses 162 (I, II, III) to be arranged.

170. SPECIAL AND CLINICAL PATHOLOGY (3 2/3). Prerequisite, Pathology 161a. Designed for dental students.

Three lecture and five laboratory hours a week, winter quarter. Staff.

Courses for Graduates

211. SURGICAL PATHOLOGY (3 1/3). Prerequisite, Pathology 161ab.

Two conference and six laboratory hours a week, fall, winter, spring, and summer quarters. Staff.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.

2. Professor, Emeritus.

212. AUTOPSY PATHOLOGY (3 1/3). Prerequisite, Pathology 16lab. *Two conference and six laboratory hours a week, fall, winter, spring, and summer quarters.* Staff.

301. SEMINAR IN PATHOLOGY (2). Prerequisite, Pathology 16lab. *Three hours a week, fall, winter, spring, and summer quarters.* Staff.

302, 303, 304. RESEARCH IN PATHOLOGY (3 1/3 or more each). Prerequisite, permission of the department. *Ten laboratory hours a week, fall, winter, spring, and summer quarters.* Staff.

DEPARTMENT OF PHARMACOLOGY¹

Professor: T. C. BUTLER

Associate Professors: F. W. ELLIS, T. Z. CSAKY²

Assistant Professors: J. B. HILL, B. BAGGETT, W. J. WADDELL

Technical Assistant: L. T. COLIE

Courses for Undergraduates

55. PHARMACOLOGY (3 1/2). Prerequisites, Physiology 51, Materia Medica 68-69. A course for pharmacy students.

Four lecture and six laboratory hours a week, last eight weeks of spring semester. Laboratory fee, \$5.00. Staff.

Courses for Graduates

134. PHARMACOLOGY (3 2/3). A course for second-year students of dentistry.

Four lecture and three laboratory hours a week, winter quarter. Staff.

171. PHARMACOLOGY (7 1/3). Prerequisites, anatomy, physiology, biochemistry. A course for second-year medical students.

Eight lecture and six laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$15.00. Staff.

In addition to the regularly scheduled courses, the department can by special arrangement offer facilities for research to a small number of students or graduates in medicine.

1. This is also a department in the School of Medicine which operates on the quarter system. Therefore, some of its courses are taught by the quarter. The credit in parentheses after the course title is in semester hours.

2. Absent on leave, May 1, 1958, to, March 5, 1959.

DEPARTMENT OF PHILOSOPHY

Professors: E. W. HALL,¹ S. A. EMERY,² E. M. ADAMS

Visiting Professor: T. STORER

Associate Professors: M. A. NATANSON, J. L. SAUNDERS

Lecturer: G. GOE

Part-time Instructors: A. O. SCHMITZ, A. LESSING, R. J. CLACK, R. E. ROBLIN, J. K. TICE

The Department of Philosophy is a member of each division of the College of Arts and Sciences. Accordingly, an undergraduate student planning a major in philosophy will elect this department as in one of these divisions and will be governed by the rules of that division regarding the distribution of his work among departmental, divisional, and non-divisional courses. Each student will decide his junior and senior program in consultation with his adviser. Courses 56, 58, 101, and 102 are recommended for all undergraduate majors and are prerequisites for any graduate major program in philosophy. For General College students who are considering a major in philosophy the introductory courses, 21, 22, and 41 are recommended. For all students not intending to major in philosophy, 21 is recommended as giving training in the principles of logical thought, 22 as introducing students to philosophical methods in the area of moral problems, and 41 and 42 as offering acquaintance with the subject matter of philosophy.

Prospective candidates for advanced degrees in philosophy should consult the Graduate School catalogue or the section in the present catalogue headed "The Graduate School" for general requirements. The Department of Philosophy specifically requires three courses under *D* below or their equivalent of all candidates for the master's degree and courses 150, 151, 153, 154, 155 and either 158 or 159 or their equivalents of all candidates for the doctor's degree.

Courses for Undergraduates

A. SYSTEMATIC COURSES

21. INTRODUCTORY LOGIC (3).

A study of the fundamental principles of logical thought as a basis for rational belief and intelligent action. Linguistic obstacles to clear and straight thinking; standards of valid reasoning; methods of inquiry.

Fall and spring. Staff.

22. INTRODUCTORY ETHICS (3).

An examination of the ethical systems of Western civilization; their relevance to the goals of human life and the means of attaining them; the problems of current ethical skepticism.

Fall and spring. Staff.

1. Absent on leave, 1958-1959.

2. Absent on leave, fall, 1958, as Kenan Professor for the Term of One Semester.

41. INTRODUCTION TO PHILOSOPHY: THE FIELDS OF PHILOSOPHY (3).

A survey of the philosophic fields, their interrelations and typical problems.
Fall and spring. Staff.

42. INTRODUCTION TO PHILOSOPHY: THE DEVELOPMENT OF PHILOSOPHY (3).

An historical introduction to philosophic inquiry through a program of readings from those thinkers who have most profoundly affected the Western mind.
Fall and spring. Staff.

51. INTRODUCTION TO THE PHILOSOPHY OF THE STATE (3).

A philosophical examination of the fundamental principles pertaining to rights of individuals, authority of society and government, political obligation, and the nature and foundation of law.

Fall. Mr. Adams or Mr. Natanson.

52. INTRODUCTION TO THE PHILOSOPHY OF RELIGION (Religion 52) (3).

An inquiry into the philosophical foundations of religious experience. Problems of belief and knowledge, faith and reason, the existence and nature of God, the character and meaning of religious commitment.

Fall and spring. Messrs. Natanson and Saunders.

53. INTRODUCTIONS TO SCIENTIFIC METHOD (3). Prerequisite, Philosophy 21 or junior or senior standing.

Inductive and deductive methods in the sciences.

Spring. Mr. Goe or Mr. Adams.

B. HISTORICAL COURSES

56. ANCIENT PHILOSOPHY (3). No prerequisite.

The development of Western philosophic thought from its inception with the early Greeks to the Hellenistic period. An examination of the writings of the Pre-socratics, Plato, Aristotle, Epicureanism, Stoicism, Neoplatonism, and Greek Skepticism.

Fall. Mr. Saunders.

58. MODERN PHILOSOPHY (3). No prerequisite.

The development of philosophic thought from the Renaissance to the nineteenth century. Chief emphasis on the seventeenth and eighteenth centuries.

Spring. Mr. Emery or Mr. Adams.

70. SCIENCE AND VALUES (3). Open to juniors and seniors with a cumulative average of B or better.

The rise of modern scientific thought out of medieval philosophies and ideas and the impact of the scientific tradition upon the study of values up to the present time.

Spring. Mr. Saunders.

99. DIRECTED READINGS (3).

Under special circumstances, and with the consent of the department chairman, an undergraduate student with adequate background in the subject may register for individual reading. May not be repeated.

Fall and spring. Staff.

100a, 100b. COURSES FOR HONORS (3 each).

See the programs for Honors work in the Division of the Humanities and the Division of the Social Sciences.

Courses for Graduates and Advanced Undergraduates

C. SYSTEMATIC COURSES

(Prerequisite, one course under *A* or *B*, or consent of instructor.)

101. SYMBOLIC LOGIC (3). Recommended that this be preceded by Philosophy 21.

The symbolic approach to the logic of classes, propositions, propositional functions, and the nature of implication.

Fall. Mr. Goe.

102. ETHICS (3). Recommended that this be preceded by Philosophy 22. A critical study of the major tendencies in the history of the philosophy of ethics and their relationship to the development of other modes of thought.

Fall. Mr. Hall or Mr. Adams.

103. AESTHETICS (3).

A critical survey of some of the aesthetic theories with illustrative application in the various fields of art.

Spring. Mr. Hall.

104. PHILOSOPHY IN LITERATURE (3).

An examination of some of the perennial problems of philosophy (the nature of man, evil, freedom, tragedy) as found in literary classics.

Fall. Mr. Natanson.

105. SURVEY OF SOCIAL AND POLITICAL PHILOSOPHY (3).

An examination of the basic concepts of political philosophy such as the state, law, right, power, authority, in relation to metaphysics and ethics.

(1958-1959 and alternate years.) *Fall.* Mr. Adams or Mr. Natanson.

106. PHILOSOPHY OF MATHEMATICS (3). Prerequisite, several courses in college mathematics or Philosophy 101.

A consideration of the major schools of thought on the problems connected with the foundation of mathematics. The solutions of Formalism, Intuitionism, and Logicism to such questions as the definition of number, the paradoxes, and the nature of mathematical truth will be studied.

(1958-1959 and alternate years.) *Spring.*

107. FOUNDATIONS OF THE SOCIAL SCIENCES (Sociology 107) (3). Recommended that this be preceded by Philosophy 22 and one course in psychology or sociology.

An inquiry into the nature of social reality through an examination of the basic concepts of sociology, history, etc. Behavioral and subjective approaches are contrasted. Both methodological and more broadly philosophical problems are discussed.

(1959-1960 and alternate years.) *Spring.* Mr. Natanson.

108. FOUNDATIONS OF THE NATURAL SCIENCES (3). Recommended that this be preceded by Philosophy 21.

Reason and Nature. Scientific method. The concepts of physics, biology, and psychology. The implications of contemporary science for the nature of reality.

(1958-1959 and alternate years.) *Spring.* Mr. Goe.

D. HISTORICAL COURSES

(Prerequisite, one course under *B* or consent of instructor.)

150. PLATO (3).

An examination of some representative works of Plato, with reference to common emphases and basic problems, together with an analysis of their philosophic content.

(1959-1960 and alternate years.) *Fall.* Mr. Saunders.

151. ARISTOTLE (3).

An examination of some representative works of Aristotle, with reference to common emphases and basic problems, together with an analysis of their philosophic content.

(1958-1959 and alternate years.) *Fall.* Mr. Saunders.

152. AUGUSTINE AND AQUINAS: THE DEVELOPMENT OF MEDIEVAL PHILOSOPHY (3).

The medieval development of the Western philosophical tradition. Representative writings of Greek Gnosticism and the rise of the Latin Western Christian tradition. Clement of Alexandria, Tertullian, Augustine, Erigena, Anselm, Arabian and Jewish influences, Bonaventura, Thomas Aquinas and William of Occam.

(1959-1960 and alternate years.) *Spring.* Mr. Saunders.

153. CONTINENTAL RATIONALISM (3).

The metaphysical systems of Descartes, Spinoza, and Leibniz as seventeenth-century attempts to reconcile the medieval tradition and the early developments of modern natural science.

(1958-1959 and alternate years.) *Spring.* Mr. Emery.

154. BRITISH EMPIRICISM (3).

An epistemological study of Locke, Berkeley, and Hume.

(1959-1960 and alternate years.) *Fall.* Mr. Emery.

155. KANT (3).

A study of Kant's critical philosophy as rooted in eighteenth-century rationalism and empiricism and as initiating German idealism.

(1959-1960 and alternate years.) *Spring.* Mr. Adams or Mr. Emery.

156. HEGEL (3).

Hegel's Absolute Idealism: its roots in Kant's critical philosophy and its influence on subsequent thought in Europe and America.

(1958-1959 and alternate years.) *Spring.* Mr. Emery.

158. RECENT AND CONTEMPORARY PHILOSOPHY (3).

Analysis of a few outstanding works in recent philosophy as illustrative of major movements of thought.

(1958-1959 and alternate years.) *Spring.* Mr. Hall or Mr. Natanson.

159. AMERICAN PHILOSOPHY (3).

The emergence of systematic American philosophy from its matrix in earlier theological, social, and literary thought. Chief emphasis on the late nineteenth and early twentieth centuries.

(1958-1959 and alternate years.) *Spring.* Mr. Emery or Mr. Natanson.

160. PHILOSOPHICAL LITERATURE OF THE RENAISSANCE (3).

A study of the philosophical and intellectual currents of the Renaissance, with reference to the origins and development of classical humanism and medieval scholasticism and the emergence of a Renaissance philosophy of man.

(1959-1960 and alternate years.) *Spring.* Mr. Saunders.

Courses for Graduates

E. SYSTEMATIC COURSES

201. LOGIC (3).

Special topics in both modern and classical logic will be considered, such as the logic of modality, the logic of probability, the nature of inference, etc. (1958-1959 and alternate years.) *Spring*.

203. METAPHYSICS (3).

A systematic study of metaphysical problems. (1958-1959 and alternate years.) *Fall*. Mr. Hall or Mr. Adams.

204. EPISTEMOLOGY (3).

A systematic study of epistemological problems. (1959-1960 and alternate years.) *Spring*. Mr. Adams or Mr. Hall.

205. VALUE THEORY (3).

A systematic study of problems in value theory. (1958-1959 and alternate years.) *Fall*. Mr. Adams or Mr. Hall.

208. PHILOSOPHY OF RELIGION (3).

A systematic study of problems in the philosophy of religion. (1959-1960 and alternate years.) *Spring*. Mr. Natanson.

F. SEMINARS AND SPECIAL

301. STUDIES IN ANCIENT AND MEDIEVAL PHILOSOPHY (3).

An examination of typical problems and philosophic issues found in the study of classical and medieval authors. Choice is made, consistent with the interests of students, from a wide range of problems, such as: the origin and development of Greek philosophical concepts; a study of the philosophic schools from the beginning of Stoicism, Epicureanism, Skepticism, down to the end of the neoplatonic school; or medieval thought from Boethius to Aquinas. May be repeated for credit.

(1958-1959 and alternate years.) *Spring*. Mr. Saunders.

304. SEMINAR IN THE HISTORY OF PHILOSOPHY (3). May be repeated for credit.

Fall and spring. Staff.

305. SEMINAR IN SYSTEMATIC PHILOSOPHY (3). May be repeated for credit.

Fall and spring. Staff.

311. READINGS IN PHILOSOPHY (3). May be repeated for credit.

Fall and spring. Staff.

312. THESIS (3).

Fall and spring. Staff.

DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

Chairman, Department of Physical Education: OLIVER K. CORNWELL

Director of Athletics: C. P. ERICKSON

Professors: O. K. CORNWELL, R. E. JAMERSON, W. H. PEACOCK, G. E. SHEPARD

Associate Professors: E. M. ALLEN, RUTH WHITE FINK, H. C. HOUSE, JR., C. E. MULLIS, W. W. RABB

Assistant Professors: SAMUEL GILL BARNES, CARL S. BLYTH, MARY FRANCES KELLAM, RUTH PRICE

Instructors: LEON H. CARSON, EMMETT CHEEK, JAMES B. HICKEY, JOSEPH T. HILTON, FRANCES B. HOGAN, E. B. KENSLER, JOHN LACEY, FRANK MCGUIRE, WARREN MORRIS, PADDISON W. PRESTON, M. D. RANSON, M. Z. RONMAN, DONALD E. SKAKLE, DEAN E. SMITH, HAMMOND STRAYHORN, JAMES M. TATUM, FRED TULLAL, WALTER E. WEILAND, ERNEST WILLIAMSON

Graduate Assistants: LON F. BONCZEK, JR., THOMAS J. GUERRIERI, RONALD W. HYATT, MURPHY M. OSBORNE, JR., DONALD E. SKAKLE, RONALD F. SOVIERO, EDWARD L. TONNESEN

The purpose of the work of the Department of Physical Education can be stated as follows: (1) to examine thoroughly each student and provide him with essential information concerning his health status; (2) to teach him the elements of personal hygiene and public health; (3) to give special attention by way of corrective exercises to all students with physical handicaps; (4) to teach outdoor sports and leisure time recreations to all students in line with their capacities and interests; (5) to provide the necessary training for teachers in the field of health and physical education and thus to help to meet the need in North Carolina for knowledge about individual and public health and to promote widespread participation in wholesome recreation.

Major requirements for students working for an A.B. in Education are: Physical Education 75, 76, 77, 78, 79, 86, 87, 88 for men and women; and 65, 66, 67, for men or 55, 56, 57 for women.

For those working toward an A.B. in Arts and Science requirements in the major are: Physical Education 75, 76, 77, 78, 86, 87 or 88 and two courses from 65, 66, 67 for men or 55, 56 57 for women.

All majors in the School of Education must have for teacher certification in North Carolina the following: 8 semester hours in biological science, Education 41, 71, 72b, 99, 63, 64.

Courses for Undergraduates

Hygiene 10W. PERSONAL HYGIENE (2). Required of freshmen women.
Two hours a week, spring. Mrs. Fink.

Hygiene 11. PERSONAL HYGIENE (2). Required of freshmen.
Two hours a week, fall or spring. Staff.

Hygiene 12W. HYGIENE (2). For junior and senior women who have not had Hygiene 10W.
Two hours a week, fall and spring. Mrs. Fink and Miss Price.

1-2. PHYSICAL EDUCATION (1 each). Required of freshmen men.

Four hours a week, fall and spring. Staff.

3-4. PHYSICAL EDUCATION (1 each). Required of sophomore men.

Four hours a week, fall and spring. Staff.

21W, 22W. PHYSICAL EDUCATION (1 each). Required of freshmen women.

Four hours a week, fall and spring. Staff.

31W, 32W. PHYSICAL EDUCATION (1 each). Required of sophomore women.

Four hours a week, fall and spring. Staff.

For Women Who Are Majoring in Physical Education:

55. PHYSICAL EDUCATION (4).

Methods and materials in volleyball, hockey, soccer, speedball, basketball, archery, recreational games, and elementary school physical education activities.

(1959-1960 and alternate years.) *Twelve laboratory hours a week, fall.* Mrs. Hogan, Miss Kellam, and Mrs. Fink.

56. PHYSICAL EDUCATION (4).

Methods and materials in folk, square, tap, social, and modern dance, camp counselling, and softball.

Twelve laboratory hours a week, spring. Misses Price, Kellam, and Mrs. Hogan.

57. PHYSICAL EDUCATION (4).

Methods and materials in tennis, golf, swimming, stunts and tumbling, life-saving, badminton, and intramurals.

(1958-1959 and alternate years.) *Twelve laboratory hours a week, fall.* Miss Kellam and Mrs. Hogan.

For Men Who Are Majoring in Physical Education:

65. PHYSICAL EDUCATION (4).

Methods, materials, technics and skills in teaching and coaching baseball, track, football, and basketball.

(1958-1959 and alternate years.) *Twelve hours a week, fall.* Messrs. Rabb, Ranson, House, and Shepard.

66. PHYSICAL EDUCATION (4).

Methods, materials, technics and skills in teaching dancing, gymnastics, tennis, wrestling, and camp counselling.

Twelve hours a week, spring. Messrs. Rabb, Peacock, Weiland, Skakle, and Miss Price.

67. PHYSICAL EDUCATION (4).

Methods, materials, technics and skills in teaching and coaching swimming, golf, games, badminton, handball, volleyball, soccer, and speedball.

(1959-1960 and alternate years.) *Twelve hours a week, fall and spring.* Messrs. Earey, Rabb, Jamerson, and Allen.

For Undergraduate Majors in Physical Education:

75. ANATOMY (3).

This course is designed to teach the fundamentals of anatomy as they apply functionally to the area of health and physical education.

Fall. Mr. Blyth.

76. PHYSIOLOGY (3). Prerequisite, Physical Education 75 or the equivalent of Zoology 41, 42.

A lecture course in elementary physiology covering the various systems of the body.

Spring. Mr. Blyth.

77. PRINCIPLES OF PHYSICAL EDUCATION (3).

A study of the relationship and contribution of physical education to general education; historical background, basic biological, physiological, psychological, and sociological backgrounds of the modern program.

Fall and spring. Messrs. House, Shepard, and Jamerson.

78. PERSONAL AND COMMUNITY HYGIENE (3).

The purpose of this course is to give the student an understanding of the principles and problems of personal, school, and community health as they apply to everyday living.

Spring. Mr. Mullis.

79. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION (2).

This course is designed to acquaint students with tests and measurements in the fields of health and physical education, test construction, scoring and methods of using results.

Fall. Mr. Peacock.

83a. PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL (3).

This course deals with the selection of material and methods of physical education in the elementary school. Elective for men majoring in physical education and required of elementary education majors.

Fall and spring. Miss Kellam and Mrs. Fink.

83b. PHYSICAL EDUCATION (3).

This course deals with the methods and materials of teaching physical education for girls in the junior and senior high school.

Summer only. Miss Kellam and Mrs. Fink.

84. HEALTH EDUCATION FOR THE ELEMENTARY SCHOOL (3).

This course includes principles, practices, and procedures in health at the elementary level. The course is required of all majors in elementary education.

Fall and spring. Mr. Jamerson.

86. ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION (3).

This course deals with the policies and problems of organization and administration of health and physical education programs in schools.

Fall and spring. Mrs. Fink, Messrs. Shepard, House, and Jamerson.

87. ADAPTED PHYSICAL EDUCATION (4).

This course is a study of problems relating to body mechanics, and the needs of the physically handicapped student.

Fall and spring. Mr. Rabb and Mrs. Fink.

88. SAFETY, FIRST AID, ATHLETIC INJURIES (3).

This course considers the problems of safety in public schools, the theory and practice of first aid, and the care and treatment of athletic injuries.

Spring. Mr. Earey.

Courses for Graduates and Advanced Undergraduates

120. PRINCIPLES OF PHYSICAL EDUCATION (3). Prerequisite, undergraduate work in education and psychology.

Fall. Mr. Jamerson.

121ab. ADMINISTRATION OF PHYSICAL EDUCATION (3).

Spring. Mr. Shepard and Mrs. Fink.

123. SCHOOL HEALTH EDUCATION (3). Prerequisite, basic courses in science.

Fall. Mr. Peacock.

126ab. ADAPTED PHYSICAL EDUCATION (3). Prerequisites, anatomy and physiology, or equivalent.

Spring. Mr. Rabb and Mrs. Fink.

127. INTRAMURAL AND EXTRAMURAL ACTIVITIES FOR SCHOOLS AND COLLEGES (3).

Fall. Mr. Rabb.

128. APPLIED PHYSIOLOGY OF EXERCISE (2). Prerequisites, zoology, anatomy, and physiology, or their equivalents.

Study of the human body in relation to its reaction to stress.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$5.00.
Mr. Blyth.

173. COMMUNITY RECREATION (Sociology 173) (3).

Mr. Meyer.

175. EXTRACURRICULAR ACTIVITIES (Education 175) (3).

Courses for Graduates

220. TESTS AND MEASUREMENTS IN HEALTH AND PHYSICAL EDUCATION (3).

Spring. Messrs. Cornwell and Peacock.

221. PHYSIOLOGY OF EXERCISE (3). Prerequisites, zoology, anatomy, and physiology.

Three lecture and four laboratory periods a week, spring. Laboratory fee, \$5.00.
Messrs. Miller and Blyth.

222. PRINCIPLES OF HEALTH EDUCATION (3). Prerequisite, adequate background in science.

(Not offered in 1958-1959.) *Spring.*

224. SCHOOL AND COMMUNITY HYGIENE (3). Prerequisite, adequate background in science.

(Not offered in 1958-1959.)

225. RESEARCH TECHNIQUES AND MODERN PROBLEMS IN PHYSICAL EDUCATION (3). Prerequisites, experience and advanced work in physical education and education.

Fall. Messrs. Cornwell, Peacock, and Shepard.

226. HISTORY OF THE DANCE (3).

(a) Dance in primitive cultures; in ancient Egypt, Greece, and Rome; in the medieval period. (b) The court ballet; modern dance; theatre dance; dance in education.

Spring. Miss Price.

320. RESEARCH IN PHYSICAL EDUCATION (3). Prerequisites, experience and advanced work in the field.

341abc. SEMINAR COURSE (2 each). Prerequisites, adequate training and experience, and permission of the instructor.

Fall and spring. Messrs. Cornwell, Jamerson, Shepard, and Peacock.

DEPARTMENT OF PHYSICS

Professors: E. D. PALMATIER, W. A. BOWERS, P. E. SHEARIN, J. W. STRALEY, OTTO STUHLMAN, JR.¹

Associate Professors: A. V. H. MASKET, EUGEN MERZBACHER, L. M. SLIFKIN

Assistant Professors: C. V. BRISCOE (also Research Associate), R. E. GLOVER III, P. S. HUBBARD, JR.

Visiting Research Professors: B. S. DEWITT, C. M. DEWITT

Research Associates: T. IMAMURA, K. L. LI, F. A. E. PIRANI (also Lecturer)

Lecturer: H. W. DANIELL

Teaching Assistants: J. C. ALBERGOTTI, F. D. BENTON, R. R. CARTER, B. CHERN, H. T. COFFEY, L. A. FORREST, S. C. HARDY, R. L. HOOVER, R. L. HILT, H. L. KYLE, J. K. LAYTON, R. D. MCKENZIE, C. A. NORTHEND, T. A. PARNELL, D. N. SINGH, R. C. SMITH, S. P. VISWANATHAN

Teaching Fellow: J. H. RUGHEIMER

Research Assistants: R. F. BASS, R. W. BREHME, C. B. CHILDS, J. L. GING, J. R. HERRING, M. N. KABLER, H. T. LAYER, W. C. MALLARD, M. G. MILLER, M. D. SHERRILL, H. E. VOGEL, H. Y. YEH

Requirements for Bachelor of Science in Physics

GENERAL COLLEGE

English 1, 2, 21

German, French, or Russian

(See p. 145)

Mathematics 15, 16 (or 11, 12) and 34-35

Chemistry 11-12 or 11-21

Social Science 1-2

Physics 34-35

Hygiene 11

Physical Education 1, 2, 3, 4

Electives: See page 148

JUNIOR YEAR

²English 33

Mathematics 141

Physics 103, 104, 105, 107

³Two non-divisional electives

SENIOR YEAR

Physics 106, 108, 160, 161, 141

Mathematics 171, 172 or 193, 194

³Two non-divisional electives

1. Professor, Emeritus.

2. A non-divisional elective may be substituted if permission be granted by the Department of Physics.

3. The Department of Physics recommends that the student initiate a second foreign language: German, Russian, or French.

Courses for Undergraduates

20. TWENTIETH-CENTURY PHYSICS (4). No prerequisite.

Topics discussed include the historical development of the atomic and nuclear view of matter; the nature of light, X-rays, and radioactivity; atomic and thermo-nuclear energy.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$6.00. Staff.

24, 25. GENERAL PHYSICS (8). Prerequisite, Mathematics 11, 12 (or 7, 8), or equivalent.

Two lecture, two recitation, and two laboratory hours a week. Laboratory fee, \$6.00. Staff.

31. DESCRIPTIVE ASTRONOMY (4).

A study of the celestial sphere, time, earth, moon, eclipses, sun, solar system, stars, the Milky Way galaxy, extra-galactic systems, cosmogony, and earth satellites.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$6.00. Mr. Daniell.

32. GENERAL ASTRONOMY (3). Prerequisite, Astronomy 31.

A more intensive study of the subjects in Astronomy 31 with emphasis on such selected topics as spectroscopic analysis of stars. Hertzsprung-Russell Diagram, peculiar stars, stellar systems, and modern cosmogonies.

Three lecture hours a week, spring.

34, 35. GENERAL PHYSICS (10). Prerequisites, Mathematics 15, 16 (or 11, 12); corequisite, calculus.

A more thorough and rigorous introduction to the fundamental principles of physics than is offered in Physics 24, 25. Especially designed for students intending to major in physics, chemistry, or mathematics.

Two lecture, three recitations, and three laboratory hours a week, fall and spring. Laboratory fee, \$6.00 a semester. Staff.

45. PHOTOGRAPHY (4).

Three lecture and three laboratory hours a week, fall. Laboratory fee, \$4.50. Mr. Scroggs.

54. MODERN DEVELOPMENTS IN PHYSICS (3). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, integral calculus.

Three lecture hours a week, fall. Mr. Shearin.

91, 92. RESEARCH FOR SENIORS (3 each).

Laboratory fee, \$5.00 each semester. Staff.

Courses for Graduates and Advanced Undergraduates

103, 104. MECHANICS⁴ (4 each). Fall and spring respectively. Prerequisite, Physics 35 or 25, with permission of the instructor, and integral calculus.

Three lecture and two computation hours a week, fall and spring. Laboratory fee, \$4.50. Staff.

105. HEAT, THERMODYNAMICS, AND KINETIC THEORY⁴ (4). Prerequisite, Physics 35 or 25 with permission of the instructor, and integral calculus.

Three lecture and three laboratory hours a week, fall. Laboratory fee, \$4.50. Staff.

4. Physics 103-108 are not to be taken for graduate credit by graduate students in physics.

106. OPTICS⁵ (4). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite, 107, 108.

Three lecture and three laboratory hours a week, spring. Laboratory fee, \$4.50. Staff.

107, 108. ELECTRICITY AND MAGNETISM⁵ (4 each). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite, integral calculus.

Three lecture and three laboratory hours a week, fall and spring. Laboratory fee, \$4.50. Staff.

120. THERMODYNAMICS AND STATISTICAL MECHANICS (3). Prerequisite, Physics 105 or permission of the instructor.

Three lecture hours a week, fall. Mr. Straley or Mr. Bowers.

124, 125. PHYSICS FOR HIGH SCHOOL TEACHERS⁶ (4 each). Prerequisites, Physics 24, 25, Mathematics 15, 16 (or 11, 12).

Three lecture and three laboratory hours a week, fall and spring.

126. MODERN PHYSICS FOR HIGH-SCHOOL TEACHERS⁶ (4). Prerequisites, Physics 24, 25, Mathematics 15, 16 (or 11, 12).

Three lecture and two laboratory hours a week, spring.

141. ELECTRONICS (4). Prerequisites, Physics 104 and 107, Mathematics 141.

Two lecture and six laboratory hours a week, spring. Laboratory fee, \$4.50. Mr. Palmatier or Mr. Masket.

150. PHYSICAL OPTICS (3). Prerequisites, Physics 106, Mathematics 141.

(Not offered in 1959-1960.) Fall. Mr. Shearin or Mr. Bowers.

160, 161. INTRODUCTION TO MODERN PHYSICS (3 each). Prerequisites, Physics 104 and 107.

Three lecture hours a week, fall and spring. Mr. Merzbacher or Mr. Hubbard.

162. ATOMIC SPECTROSCOPY (3). Prerequisite, Physics 161.

Three lecture hours a week, spring. Mr. Straley.

163. MOLECULAR SPECTROSCOPY (3). Prerequisite, Physics 161.

Three lecture hours a week, fall. Mr. Straley.

170, 171. SOLID STATE PHYSICS (3 each). Prerequisite, Physics 161.

Crystal structure and X-ray diffraction; properties of the perfect lattice; elasticity and thermal properties; electrons in the perfect lattice. Properties of semiconductors; phenomena dependent on imperfections in crystals: color centres, diffusion, photo-conductivity, etc., superconductivity.

(1958-1959 and alternate years.) Fall and spring. Mr. Slifkin or Mr. Glover.

181, 182. ADVANCED LABORATORY (3 each). Prerequisite, Physics 104, 108, or permission of the instructor.

Six laboratory hours a week, fall and spring. Laboratory fee, \$10.00 a semester. Staff.

191, 192. MATHEMATICAL METHODS OF THEORETICAL PHYSICS (3 each). Prerequisites, Physics 104, 107, 108, Mathematics 141; Mathematics 171 desirable but may be taken concurrently.

Fall and spring. Mr. Masket.

193. CLASSICAL DYNAMICS (3). Prerequisite, Physics 192.

Fall. Mr. Masket or Mr. Bowers.

194. ELECTROMAGNETIC THEORY (3). Prerequisite, Physics 192.

Spring. Mr. Bowers or Mr. Merzbacher.

5. Physics 103-108 are not to be taken for graduate credit by graduate students in physics.

6. Physics 124, 125, 126 are offered as part of the North Carolina Institute for High School Teachers of Science and Mathematics for 1959-60 and they are open to high school teachers only.

Courses for Graduates

221. STATISTICAL MECHANICS (3). Prerequisite, Physics 120 and 193; Physics 260 is desirable.
(1959-1960 and alternate years.) *Fall*. Mr. Bowers.
240. ADVANCED ELECTROMAGNETIC THEORY (3). Prerequisite, Physics 194.
(1958-1959 and alternate years.) *Spring*. Mr. Merzbacher or Mr. Bowers.
- 260, 261. QUANTUM MECHANICS (3 each). Prerequisites, Physics 160, 161 and 193, 194.
Fall and spring. Mr. Merzbacher.
262. ADVANCED QUANTUM MECHANICS (3). Prerequisite, Physics 261.
(1958-1959 and alternate years.) *Fall*. Mr. Merzbacher.
267. CURRENT ADVANCES IN PHYSICS (3). Prerequisite, permission of the instructor.
Fall or spring. Graduate staff.
268. THEORETICAL NUCLEAR PHYSICS (3). Prerequisite, Physics 261.
(1958-1959 and alternate years.) *Spring*. Mr. Merzbacher.
271. THEORY OF THE SOLID STATE (3). Prerequisite, Physics 261.
(1959-1960 and alternate years.) *Spring*. Mr. Bowers.
275. THEORY OF RELATIVITY (3). Prerequisites, Physics 193, 194.
(1959-1960 and alternate years.) *Fall*. Mr. Merzbacher.
301. RESEARCH (3 or more).
Ten or more laboratory or computation hours a week, fall or spring. Graduate staff.
310. SEMINAR IN THEORETICAL PHYSICS (1 or more).
Either semester, as announced. Staff.
320. SEMINAR IN LOW TEMPERATURE PHYSICS (1 or more).
Either semester, as announced. Staff.
360. SEMINAR IN NUCLEAR PHYSICS (1 or more).
Either semester, as announced. Staff.
364. SEMINAR IN MOLECULAR PHYSICS (1 or more).
Either semester, as announced. Staff.
370. SEMINAR IN SOLID STATE PHYSICS (1 or more).
Either semester, as announced. Staff.
380. SEMINAR IN PARTICLE PHYSICS (1 or more).
Either semester, as announced. Staff.

DEPARTMENT OF PHYSIOLOGY¹

Professors: J. H. FERGUSON, A. T. MILLER, JR.
Associate Professor: J. H. PERLMUTT
Assistant Professor: L. R. YONCE
Instructor: R. L. GLASSER
Part-time Instructor: W. S. MCCLELLAN
Research Associate: CHARLES L. JOHNSTON, JR.
Technician: R. S. SPARROW

¹ This is also a department in the School of Medicine which operates on the quarter system. Therefore, all courses below 200 (except 51) are taught by the quarter. The credit in parentheses after the course title is in semester hours.

Course for Undergraduates

51. GENERAL COURSE IN PHYSIOLOGY (3½). Prerequisites, general courses in zoology and chemistry. Elective.²

Two lecture and three laboratory hours a week, spring semester. Laboratory fee, \$5.00. Messrs. Ferguson, Miller, Perlmutter, Yonce, Glasser, and McClellan.

Courses for Graduate and Professional Students

106. PHYSIOLOGY (6). Prerequisite, approval of the Head of the Department and the Dean of the Graduate School.

This general course covers the physiology of the blood, circulation, respiration, digestion, metabolism, excretions, body fluids, body temperature, endocrines, neuromuscular system, and the autonomic and central nervous systems. It is required of all dental students and is available to graduate students as part of a minor in physiology.

Five lecture and eight laboratory hours a week, winter quarter.³ Laboratory fee for non-dental students, \$7.50. Messrs. Ferguson, Miller, Perlmutter, Yonce, Glasser, and McClellan.

141. GENERAL COURSE IN PHYSIOLOGY I (3 1/3). Prerequisite, consult instructor. Offered only in conjunction with Part II (142) in the succeeding quarter. Elective.²

Physiology of muscle and nerve, autonomic nervous system, blood, heart, and circulation.

Three lecture and four laboratory hours a week, winter quarter.³ Laboratory fee for non-medical students, \$5.00. Messrs. Ferguson, Miller, Perlmutter, Yonce, Glasser, and McClellan.

142. GENERAL COURSE IN PHYSIOLOGY II (8 1/3). Prerequisite, consult instructor. Elective.²

Physiology of respiration, metabolism, kidney and water balance, alimentation, endocrines, and nervous system.

Six lecture and twelve laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$10.00. Messrs. Ferguson, Miller, Perlmutter, Yonce, Glasser, and McClellan.

Courses for Graduates

201. ENDOCRINOLOGY (4). Prerequisite, consult instructor.

A survey of the functional aspects of the endocrine glands. The experimental point of view is emphasized with discussion of the basic physiology underlying endocrinopathies.

Two lecture and four laboratory hours a week, fall or spring semester. Laboratory fee, \$10.00. Mr. Perlmutter.

202. BLOOD (4). Prerequisite, consult instructor.

An introduction to the technical problems involved in investigations of blood coagulation and the functions of the formed elements of the blood.

Two lecture and four laboratory hours a week, fall or spring semester. Laboratory fee, \$10.00. Mr. Ferguson.

2. Before registering for this work the academic student must secure the permission of his dean.

3. Registration in fall semester is required.

206. NEUROPHYSIOLOGY (4). Prerequisites, Physiology 141 and 142, Anatomy 101.

A survey of the physiology of the nervous system including fundamental properties of nerve tissue, neuromuscular relationships, reflexes, and localization of function in the central nervous system.

Two lecture and four laboratory hours a week, fall or spring semester. Laboratory fee, \$10.00. Mr. Glasser.

211. RESPIRATION AND METABOLISM (4). Prerequisite, consult instructor.

An introduction to the study of energy metabolism and tissue respiration with application to both human and comparative physiology.

Two lecture and four laboratory hours a week, fall or spring semester. Laboratory fee, \$10.00. Mr. Miller.

212. CIRCULATORY PHYSIOLOGY (4). Prerequisite, consult instructor.

A study of the hemodynamics and the control of the circulation in man and experimental animals, including pressure relationships, blood flow, vascular resistance, response of the circulation to various normal and abnormal conditions, and techniques for measuring circulatory phenomena.

Two lecture and four laboratory hours a week, fall or spring semester. Laboratory fee, \$10.00. Mr. Yonce.

220. SPECIAL METHODS IN PHYSIOLOGY (not to exceed 5). Prerequisite, consult instructor and the Head of the Department. This is open to selected graduate students, majoring or minoring in Physiology.

This course will consist of laboratory training in operative technique, instrumentation, and bio-recording, in a selected special field of physiology, other than that of the student's research. It is designed to extend the graduate student's advanced knowledge of modern physiology into areas not covered by his research field and other graduate courses.

Fall, spring, or summer semesters. Laboratory fee, when requested, not to exceed \$10.00. Messrs. Ferguson, Miller, Perlmutter, Yonce, and Glasser.

301, 302, 303. RESEARCH IN PHYSIOLOGY (4 each).

Fall, spring, and summer semesters. Laboratory fee, \$5.00 a unit. Messrs. Ferguson, Miller, Perlmutter, Yonce, and Glasser.

DEPARTMENT OF POLITICAL SCIENCE

Professors: F. N. CLEAVELAND, C. B. ROBSON¹, W. W. PIERSON, K. C. FRAZER, P. W. WAGER, W. S. JENKINS, E. J. WOODHOUSE², G. A. HEARD, D. G. MONROE, F. G. GIL, S. S. JONES

Associate Professors: W. R. PULLEN,³ D. R. MATTHEWS, R. A. RUPEN

Assistant Professor: G. B. CLEVELAND

Acting Associate Professor: A. M. SCOTT

Visiting Lecturer: MARJORIE M. APPLEWHITE

Instructors: E. WALLACE, R. DAWSON, B. WALTER

Instructor in Extension Teaching: D. C. RHYNE

Instructor in Social Science: E. L. PINNEY

Part-time Instructors: R. L. BOWMAN, D. M. FREEMAN, MARGARET HUNT, J. R. FAUST, P. L. MARTIN, G. F. RUTAN

Teaching Fellow: MARGARET LAW

Falk Fellows: D. S. GATLIN, M. N. GOLDSTEIN, D. M. KOVENOCK, B. W. ONSTINE, B. SEASHOLES

Graduate Assistants: S. A. PEARL, G. B. WILLIAMS, W. E. BRIGMAN, W. E. JACKSON

1. Absent on leave, 1958-1959.

2. Professor, Emeritus.

3. Resigned January 1, 1959.

The requirements for the A.B. with a major in political science are Political Science 41 (or the equivalent), at least two additional exclusively undergraduate courses (selected from Political Science 42, 51, 52, 43, 86, and 87), and a sufficient number of other political science courses to make a total of eight. The courses must be distributed among at least three of the several fields of political science; (1) local, state, and federal government in the United States; (2) public administration; (3) foreign and comparative government; (4) international law and relations; and (5) political theory and jurisprudence. There must, however, be a certain degree of concentration in one of these fields.

Also, in choosing allied courses, selections should be made which support the field of concentration. These requirements can be met and still allow an assembly of courses dealing with a specific geographic area such as Latin America.

Students who have shown exceptional competence are permitted to pursue a reading program in lieu of two regular courses. This modified course of study, if completed satisfactorily, leads to the A.B. with Honors in Political Science.

Training for Public Administration

Professional training for such positions in the public service as general administrators (including city managers), public personnel specialists, and public financial administration specialists is offered by the department at the graduate, rather than the undergraduate, level. However, the student may obtain through an undergraduate major in political science the necessary foundation for entrance upon an administrative career in the United States Government. He may also obtain the foundation for graduate professional training in public administration.

Since government requires many kinds of skills in its staff, students may prepare for entry into the public service through many departments of the University. In recognition of this, and regardful of the special needs of the public official, the Division of Social Sciences of the College of Arts and Sciences has recommended that students planning to enter the public service, regardless of undergraduate major, incorporate the following courses in their programs, consistently of course, with other College requirements: Political Science 41, Economics 31-32 (or 61), Psychology 26, Political Science 101, History 22 or 72 or 114, Economics 70 and 74, and English 30.

The department will be glad to advise students interested in preparing for the public service.

Political Studies Program

The Political Studies Program offers special opportunities and facilities for the study of American politics. Supported by a grant from the Maurice and Laura Falk Foundation, this program aims to give graduate and undergraduate students a first hand knowledge of American politics through personal participation, observation, and study. The Political Studies Program maintains a Politics Laboratory in Caldwell Hall which contains an extensive collection of political party and interest group publications; election laws, maps, and statistics; government publications; public opinion polls; newspapers and magazines; as well as the latest statistical equipment. The Laboratory is used by students in undergraduate and graduate courses and is available for independent research.

Field work projects, involving personal observation and participation in politics, are a regular part of the Program. A limited number of especially qualified students are also placed as interns in the executive agencies and legislative offices in Washington, D. C., or Raleigh during the summer months. Five Falk Fellowships open to graduate students have been established in connection with the Program.

Courses for Undergraduates

41. INTRODUCTION TO GOVERNMENT IN THE UNITED STATES (3).

A basic course in American government, giving attention to the origin and nature of our federal system, and the distribution of powers between the national government and the states, but with major emphasis on national government and the part played respectively by the executive, the Congress, and the courts.

Two lecture hours and one discussion meeting a week, fall and spring. Materials fee, \$1.00. Mr. Wallace and staff.

NOTE: This course, or the equivalent, is a prerequisite for all other political science courses.

42. THE PROCESSES AND PROBLEMS OF GOVERNMENT IN THE UNITED STATES (3).

Designed as complementary to Political Science 41. The course deals chiefly with the efforts made by government in the United States to solve internal public problems. It treats particularly government policies toward agriculture, labor, and business.

Two lecture hours and one laboratory hour a week, fall and spring. Materials fee, \$1.00. Mr. Walter and Miss Law.

51. STATE GOVERNMENT IN THE UNITED STATES (3).

The organization and administrative methods of state government, with some examination of the relationships between the state government and the counties, cities, and towns.

Fall and spring. Materials fee, \$1.00. Messrs. Monroe, Wager, and Mrs. Applewhite.

52. THE GOVERNMENTS OF EUROPE (3).

The government and politics of Great Britain, France, and Russia; a survey of constitutional development, but with emphasis upon organization and methods of government.

Fall and spring. Materials fee, \$1.00. Mr. Dawson.

55. COMMUNISTIC TOTALITARIANISM IN RUSSIA (3).

An explanation of the revolution of 1917 and a review of the subsequent power struggle and gradual development of the police state. Also an analysis of the effects of the dictatorship on communications, education, science, the arts, labor, minority groups, and the family.

Fall. Materials fee, \$1.00. Mr. Rupen.

63. HISTORICAL SURVEY OF POLITICAL IDEAS (3).

A course designed to present a historical and conceptual background for upper college courses in political thought. Emphasis will be placed upon the development of political ideas prior to the twentieth century.

Fall and spring. Materials fee, \$1.00. Mr. Cleveland.

75. POLITICAL PARTIES AND INTEREST GROUPS IN THE UNITED STATES (3).

The development, structure, operation and place of political parties and interest groups in the American system of government.

Fall. Materials fee, \$1.00. Mr. Matthews.

86. INTERNATIONAL RELATIONS AND WORLD POLITICS (3).

Analysis of politics among nations: imperialism, balance of power, international morality, sovereignty, diplomacy; analysis of the problem of peace, disarmament, international organizations, world government, diplomacy.

Fall and spring. Materials fee, \$1.00. Messrs. Frazer and Scott.

87. INTERNATIONAL RELATIONS OF THE LATIN AMERICAN REPUBLICS (3).

Historical survey of diplomatic relations of the Latin American republics with the rest of the world with special emphasis upon relations with the United States.

Fall. Materials fee, \$1.00. Mr. Gil.

91-92. HONORS COURSE (6). Required of all students reading for Honors in Political Science.

Courses for Graduates and Advanced Undergraduates

101. PUBLIC ADMINISTRATION (3).

A study of the basic principles of organization, location of authority, fiscal management, personnel management, and forms of administrative action in the public service.

Fall and spring. Materials fee, \$1.00. Messrs. Wager and Cleveland.

105. PUBLIC PERSONNEL ADMINISTRATION (3).

A study of the civil service—its recruitment, training, classification, promotion, restrictions, immunities, compensation and morale; and of the machinery which has been developed for handling personnel matters.

Spring. Materials fee, \$1.00. Mr. Wager.

121. THE GOVERNMENT OF ENGLAND (3).

The development and operation of British government in its local, national, and imperial aspects and an examination of current developments in social and economic policy.

(Not offered in 1958-1959.) *Fall. Materials fee, \$1.00. Mr. Robson.*

123. COMPARATIVE GOVERNMENT (3).

A comparative study of the principles, structure, and operation of contemporary government systems with special attention to those of continental Europe.

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.* Mr. Robson.

124. COMMUNISM IN ASIA (3).

This course deals primarily with Russian-Chinese relations but also analyzes the significance of the vast areas of the U.S.S.R. which lie in Asia and the role of the borderlands of Sinkiang and Mongolia. The aim of the course is to assess the strengths and weaknesses of Communism in contemporary Asia, and the threat imposed thereby on the United States.

Fall. Materials fee, \$1.00. Mr. Rupen.

126. THE HISPANIC EMPIRES IN AMERICA (3).

A study of the political and social institutions in the Spanish and Portuguese colonial systems and their development.

(Not offered in 1958-1959.) *Fall. Materials fee, \$1.00.* Mr. Gil.

127. GOVERNMENT OF LATIN AMERICAN STATES (3).

The forms of organization, the functions, and the operations of government in Latin America with emphasis on present conditions, tendencies, and peculiar types of institutions.

Fall. Materials fee, \$1.00. Messrs. Pierson and Gil.

132. MUNICIPAL GOVERNMENT IN THE UNITED STATES (3).

Chartered city and town governments: origin, history, forms, and relations to national, state, and county governments.

Fall. Materials fee, \$1.00. Mr. Wager.

133. MUNICIPAL ADMINISTRATION IN THE UNITED STATES (3).

Administrative organization, procedure, and problems of cities and towns.

Spring. Materials fee, \$1.00. Mr. Esser.

134. COUNTY GOVERNMENT AND ADMINISTRATION (3).

A review of the historical antecedents of American counties and townships; the present organization, powers, functions, and intergovernmental relations of these units; and significant trends.

Fall. Materials fee, \$1.00. Mr. Wager.

141. PRINCIPLES OF INTERNATIONAL LAW (3).

A study of the historical development and the principles of the law of nations, together with the organization and procedure of institutions for the peaceful settlement of international disputes. Lectures, readings.

Fall. Materials fee, \$1.00. Mr. Frazer.

142. THE UNITED NATIONS (3).

A survey of the background, organization, and procedures of the United Nations organization. Lectures, readings.

Spring. Materials fee, \$1.00. Mr. Frazer.

144. THE ORGANIZATION AND CONDUCT OF THE FOREIGN RELATIONS OF THE UNITED STATES (3).

Principal consideration is given to the organization of the government of the United States for the conduct of its foreign relations, e.g., the Department of State, the Foreign Service, etc.

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.* Mr. Jones.

145. CONTEMPORARY INTERNATIONAL RELATIONS OF THE UNITED STATES (3). Permission of the instructor is required.

The course is suited to undergraduates and graduates with some knowledge of international relations who wish to study the contemporary foreign policy of the United States.

Fall. Materials fee, \$1.00. Mr. Jones.

146. INTERNATIONAL COMMUNICATIONS AND COMPARATIVE JOURNALISM (Journalism 146) (3). Prerequisite, six semester hours of upper-division courses in international relations or recent European history.

Development of international communications; the world's press systems; international organization and freedom of information; the foreign correspondent; international information programs.

(Not offered in 1958-1959.) *Spring.*

147. INTER-AMERICAN REGIONAL ORGANIZATIONS (3).

The evolution of the inter-American security system, recent Pan-American conferences and the activities and problems of the various continental agencies.

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00. Mr. Gil.*

148. THE MIDDLE EAST IN WORLD POLITICS (3).

A study of the contemporary international relations of the Middle East, with emphasis on the internal forces, such as nationalism, and external pressures from the Great Powers. Economic and cultural as well as religious and political factors are examined.

Spring. Materials fee, \$1.00. Mr. Jones.

151. THE ELEMENTS OF POLITICAL SCIENCE (3).

A study of the principles of political science and of the important theories respecting the nature, origin, forms, and ends of the state and of government.

Fall. Materials fee, \$1.00. Mr. Pierson.

154. DEVELOPMENT OF THE ENGLISH CONSTITUTION (History 141) (3).

Emphasis upon the major constitutional documents and the development of the national political institutions with considerable attention to the leading constitutional cases and principles of law.

Spring. Mr. Godfrey.

155. THE CONSTITUTION OF THE UNITED STATES (History 175) (3).

A study of the fundamental principles of constitutional interpretation and practice in the United States by means of lectures, textbooks, and cases.

Fall and spring. Materials fee, \$1.00. Mr. Jenkins.

156. A SYSTEMATIC STUDY OF THE POLITICAL PROCESS (3).

Contemporary theory and research pertaining to the relationships of political roles, personality, and social structure to government and politics.

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.*

159. THE BRITISH COMMONWEALTH OF NATIONS (History 159) (3).

From the old colonial system to the constitutional development of the Commonwealth; special attention to Canada and to the important documents of Commonwealth growth, including the most recent ones.

Fall. Mr. Baxter.

162. AMERICAN POLITICAL THOUGHT (3).

An analysis of the ideas underlying government and politics in the United States.

(Not offered in 1958-1959.) *Fall. Materials fee, \$1.00. Mr. Robson.*

165. POLITICAL THOUGHT OF THE EIGHTEENTH CENTURY (3).

The development of liberal and democratic political thought, with emphasis on the ideas of the American and the French Revolutions.

Spring. Materials fee, \$1.00. Mr. Pierson.

166. RECENT AND CONTEMPORARY POLITICAL THOUGHT (3).

The theory of constitutional democracy together with an examination of the principal lines of criticism of this form of government and of the ideologies antagonistic to it.

Spring. Materials fee, \$1.00. Mr. Cleveland.

167. POLITICAL THOUGHT IN LATIN AMERICA (3).

An analysis of the development of political philosophy in Latin America with an examination of the evolution of democratic thought.

Spring. Materials fee, \$1.00. Mr. Pierson.

175. A SYSTEMATIC STUDY OF AMERICAN POLITICAL PARTIES (3).

Open to undergraduates by permission only.

An intensive examination of American parties and the party system with emphasis on theory, design, and methods of research, field work, and laboratory problems.

Spring. Materials fee, \$1.00. Mr. Matthews.

181. RECENT NATIONAL POLICY AND ADMINISTRATION (3). Additional prerequisite, Economics 31-32 or equivalent.

Analytical and critical survey of basic national policies affecting business, labor, agriculture, special groups and industries, and the economy in general. Foreign policy is excluded.

Spring. Materials fee, \$1.00. Mr. Cleaveland.

185. FINANCIAL ADMINISTRATION (3).

An analysis of the fiscal agencies in federal, state, and local government; and of the principles and practices of budgeting, accounting, auditing, purchasing, tax administration and treasury management.

(Not offered in 1958-1959.) *Fall. Materials fee, \$1.00.* Mr. Wager.

191. PUBLIC FINANCE (Economics 141) (3). Additional prerequisite, Economics 31-32 or equivalent.

Fall and spring. Messrs. Spruill and Ashby.

193. PROBLEMS IN STATE AND LOCAL FINANCE (Economics 143) (3). Additional prerequisite, Economics 141 or equivalent.

Spring. Mr. Ashby.

197. GOVERNMENT AND BUSINESS (Economics 197) (3). Additional prerequisite, Economics 31-32 or equivalent.

Fall and spring. Messrs. Hobbs, Carter, and Barrett.

Courses for Graduates

200. THE HISTORY, SCOPE AND METHOD OF POLITICAL SCIENCE (3).

A consideration of the evolution and present status of political science as a discipline and as a profession, with emphasis on contemporary research methods and techniques, including the preparation of research reports.

Fall. Materials fee, \$1.00. Mr. Heard.

209. PLANNING AND GOVERNMENT (City and Regional Planning 209) (3).

Survey of nature and scope of government planning, its relation to other governmental activities, and its administrative and organizational problems.

Fall. Mr. Cleaveland.

210. PUBLIC ADMINISTRATION OF RESOURCES (3). Additional prerequisite, Political Science 101 or equivalent.

A study of the agencies, principles, and procedures which have been evolved by the national and state governments in regulating or administering natural resources. (Not offered in 1958-1959.) *Fall. Materials fee, \$1.00.* Mr. Wager.

221. LEGAL PROBLEMS IN PUBLIC ADMINISTRATION (3). Additional prerequisite, Political Science 101 or equivalent.

Legal setting of public administration, emphasizing governmental regulatory activities: administrative legislation, administrative adjudication, procedural restrictions, judicial review of administrative decisions, government and official liability.

Spring. Materials fee, \$1.00. Mr. Monroe.

225. ADMINISTRATIVE ORGANIZATION AND MANAGEMENT (3). Additional prerequisite, Political Science 101 or equivalent.

A study of the structural and management aspects of public administration: organization theory and practice, policy formation processes, techniques of administrative improvement, field administration.

Spring. Materials fee, \$1.00. Mr. Cleveland.

231. THE LEGISLATIVE PROCESS (3).

(1958-1959 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Jenkins.

235. THE JUDICIAL PROCESS (3). Additional prerequisite, Political Science 155 or equivalent.

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.* Mr. Jenkins.

241. INTERNATIONAL LAW (3). Additional prerequisite, Political Science 141 or equivalent.

A comprehensive study of the law of nations by the discussion of illustrative cases and other documentation. Lectures and reports.

Fall. Materials fee, \$1.00. Mr. Frazer.

242. INTERNATIONAL ORGANIZATION (3).

A study of the structure, processes, and problems of current public organizations for maintaining international peace. Lectures and reports.

Spring. Materials fee, \$1.00. Mr. Jones.

244. PROBLEMS OF CONTEMPORARY FOREIGN POLICY AND INTERNATIONAL POLITICS (3).

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.* Mr. Jones.

255. PROBLEMS IN CONSTITUTIONAL LAW (3).

Fall. Materials fee, \$1.00. Mr. Jenkins.

286. INTERNATIONAL POLITICS: THEORY AND PRACTICE (3).

(Not offered in 1958-1959.) *Spring. Materials fee, \$1.00.* Mr. Jones.

Seminar Courses for Graduates

Prerequisite, a political science major or the equivalent.

301ab. MODERN INTERNATIONAL RELATIONS (6).

Conferences. Mr. Jones.

311ab. SEMINAR IN AMERICAN POLITICAL THEORY (6).

Fall and spring. Mr. Pierson.

321. STATE AND LOCAL GOVERNMENT (3).

Fall. Mr. Wager.

331. PROBLEMS IN PUBLIC ADMINISTRATION (3).

Individual and group research projects on particular administrative agencies and significant problems of administrative theory and practice.

Spring. Mr. Cleaveland.

341. SEMINAR COURSE (3).

A research or reading course in a special field.

Fall and spring. Any member of the graduate faculty.

342. READING COURSE IN LATIN AMERICAN GOVERNMENT (3).

(Not offered in 1958-1959.) *Fall and spring.* Messrs. Gil and Pierson.

343. READING COURSE IN POLITICAL THEORY (3).

(Not offered in 1958-1959.) *Fall and spring.* Mr. Robson.

355. RESEARCH IN PUBLIC RECORDS (3).

Open to advanced graduate students in any of the social sciences.

Spring. Mr. Jenkins.

361. PROBLEMS IN RECENT AND CONTEMPORARY POLITICAL THEORY (3).

(Not offered in 1958-1959.) *Fall and spring.* Messrs. Pierson and Robson.

375. THESIS COURSE (3).

Fall and spring. Members of the graduate faculty.

PORTUGUESE

(See Romance Languages)

DEPARTMENT OF PSYCHOLOGY

Professors: DOROTHY C. ADKINS, H. G. MCCURDY, JOHN THIBAUT, W. J. DANIEL, J. F.

DASHIELL,¹ HARRY W. CRANE²

Associate Professors: G. S. WELSH,³ W. G. DAHLSTROM, E. R. LONG, E. EARL BAUGHMAN, LYLE V. JONES, HANS H. STRUPP

Assistant Professors: THOMAS JEFFREY, JUNE CHANCE, MARY CLARKE, RALPH DUNLAP, GORDON RADER, EMIR SHUFORD, SAMUEL FILLENBAUM, DARRELL BOCK

Visiting Assistant Professor: BARCLAY MARTIN

Instructors: EHUD KOCH, RICHARD KING, LOIS SAUTE, JOHN SCHOPLER

Lecturers: LLOYD STRICKLAND, HARRY S. UPSHAW, D. WILFRED ABSE, KURT BACK

Visiting Lecturer: EDWARD S. JONES

Teaching Fellow: JAMES F. OAKES

Part-time Instructors: ROBERT W. BALENTINE, D. ANN DISSINGER, JOHN D. DUKE, STUART E. GOLANN, PAUL C. GOLDIN, JOHN A. GORMAN, JAMES J. MCKEON, FRANCES MAY, MICHAEL MERBAUM, LENNARD J. PEPPER, DOROTHY L. RICHMOND, GAIL V. SMITH, PAUL B. WOOD

United States Public Health Service Fellows: FRANCES A. CAMPBELL, PAUL B. FIDDLEMAN, C. DAVID JENKINS, WILLIAM S. JONES, RUSSELL P. NORMAN, MARTIN J. WAL-LACH, MICHAEL WOGAN

Research Assistants: EDWARD S. JOHNSON, DONALD C. ROSS, DOUGLAS K. SPIEGEL

Graduate Assistant: JOHN A. EDWARDS

National Science Foundation Post-Doctoral Fellow: JOHN E. OVERALL

Social Science Research Council Fellow: E. ELIZABETH STEWART

1. Kenan Professor, Emeritus.

2. Professor, Emeritus.

3. Absent on leave, 1958-1959.

The emphasis in undergraduate study of psychology is not on specialization within the field. The program for majors includes three required courses, but beyond them allows latitude for the varying directions of interest that the student may express. There are some courses which are particularly recommended to the major if he anticipates pursuing graduate training in psychology. Students intending to major in psychology are advised to include courses in biology, physics, mathematics, sociology and anthropology in their studies.

The courses in the department available to the undergraduate student are listed below in several groups. Each major is required to take all of the courses in Group A and at least five other courses in the department. It is advisable to take Group A courses as early as possible in the major program. Psychology 27 need not be taken prior to Psychology 28. In addition, the major student must select at least one course each from groups B, C, and D. The remaining courses needed to complete his major may be selected from any of the other courses in groups B, C, D, and E. Group A: Psychology 26, 27, and 28; Group B: Psychology 104, 106, 121, 122; Group C: Psychology 126, 133, 140, 146; Group D: Psychology 130, 132, 135, 148; Group E: Psychology 112, 131, 141, 165, 181 or other departmental offerings such as honors and original problems. It is also strongly recommended that any student intending to pursue graduate studies in psychology include Psychology 130 in his major program. Details of the student's program are planned with his adviser.

Majors in psychology who have taken at least four courses in the department with better than a B average in those courses are eligible for enrollment in the Honors Program. Application should be made through his departmental adviser before registration for the first semester of the major's senior year. In this program, a student of superior ability and industry will have an opportunity to carry out independent work in an area of his choice under the guidance of some departmental staff member. Interested and qualified students should make inquiry of their departmental advisers.

For graduate students the emphasis is not on specific courses as such but rather on different areas of competence, in which progress is assessed by examinations. In consultation with his adviser, the student plans a program of study and research adapted to his needs and interests. More detailed information is given in mimeographed materials available upon request from the Department of Psychology.

Practicum experience in advanced psychometric techniques is available to qualified students in connection with research projects of the Psychometric Laboratory.

Personnel and material facilities for graduate level professional training in clinical psychology are available both on and off the campus. Practicum experience in diagnostic and therapeutic procedures

is available to qualified students through the University Memorial Hospital. The department participates in the clinical training programs sponsored by the Veterans Administration and the United States Public Health Service.

The student is referred also to courses in educational psychology, statistics, neurology, physiology, sociology and anthropology listed by other departments of the University.

Some courses will be given in alternate years or irregularly as demand warrants.

The advised prerequisites for each course are provided for the general guidance of the student in consultation with his adviser. In some cases, they may believe that the student needs a particular course and could succeed in it without having had the specified prerequisites. If so, the student should consult with the instructor of the course, who may waive a prerequisite.

Courses for Undergraduates

26. GENERAL PSYCHOLOGY (4). No prerequisite. *May not be taken by persons who have received credit for either Psychology 24 or 25.*

A general survey of the field of psychology as a behavioral science presented through lecture, demonstration, and laboratory work.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Messrs. Daniel, McCurdy, Dahlstrom, Long, King, Fillenbaum, Jeffrey, and Thibaut.

NOTE: No student may register for the laboratory without the lectures except majors who have received credit for the lectures, or in special instances, those who have failed previous laboratory work.

27. INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY (4). Prerequisite, Psychology 26 (24 or 25) or an equivalent course in general psychology.

Content, methods, and procedures of experimental psychology, including sensory processes, perception, emotion, conditioning and learning. Collection and quantitative treatment of behavioral data.

Three lecture and three laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Messrs. Long and King.

28. INTRODUCTION TO PERSONALITY (4). Prerequisite, Psychology 26 (24 or 25) or an equivalent course in general psychology.

A study of the normal human individual as an organic whole. Hereditary and environmental sources of individual differences. Special attention to personality dynamics, particularly as formulated by Freud.

Three lecture and one hour of discussion a week, fall and spring. Messrs. Fillenbaum, Koch, Martin, and Miss Chance.

NOTE: This course will not meet the General College laboratory science requirement.

99ab. HONORS IN PSYCHOLOGY (3). Prerequisite, enrollment in the honors program.

Reading and research problems. (See description above.) To be taken twice by each honors student and may be counted towards the major at the student's option.

99a, fall; 99b, spring. Staff.

Courses for Graduates and Advanced Undergraduates

NOTE: Psychology 26 or the equivalent is prerequisite to all courses numbered above 100.

104. INTRODUCTION TO THEORIES OF BEHAVIOR (3). Prerequisites, Psychology 26 (24) and 27 (25) or permission of the instructor.

Survey and comparison of such theories as those of Thorndike, Guthrie, Hull, Skinner, Lewin, Tolman, and the Gestalt psychologists. Emphasis on the structure of these systems and their experimental bases.

Fall. Mr. Daniel.

106. PHYSIOLOGICAL PSYCHOLOGY (3). Prerequisites, Psychology 26 (24) and 27 (25) or special permission of the instructor.

End organ, neurological, and muscle action patterns and their contributions to integrated behavior. Related findings on endocrine, hormonal, and metabolic processes will also be examined.

Two lecture and two laboratory hours a week, fall. Laboratory fee, \$3.00. Mr. King.

112. HISTORICAL TRENDS IN PSYCHOLOGY (3). Prerequisites, Psychology 26 (24), and 27 (25) or 28 (40), or permission of the instructor. Limited to senior majors or to graduate students in psychology; others by permission of the instructor.

Over-view of the origins of psychological concepts, movements, and fields of study.

Spring. Mr. McCurdy.

121. SENSATION AND PERCEPTION (3). Prerequisites, Psychology 26, 27 (or 24, 25), or permission of the instructor.

Problems of vision, audition, skin senses, chemical senses, attention, reaction time, psychophysical methods, and emotion. Laboratory work will provide a first-hand acquaintance with the various phenomena.

(1959-1960 and alternate years.) *Two lecture and three laboratory hours a week, fall. Laboratory fee, \$3.00.* Mr. Long.

122. LEARNING AND THINKING (3). Prerequisites, Psychology 26, 27, or permission of the instructor.

Motivation, conditioning, learning, problem-solving, thinking, and language. Relations of findings to educational procedures emphasized.

Two lecture and three laboratory hours a week, spring. Laboratory fee, \$3.00. Mr. Long.

126. CHILD DEVELOPMENT (3). Prerequisites, Psychology 26 (24 or 25) and 28 (40).

Survey of development of the normal child, with particular attention to social relations. Biological and cultural factors are considered.

Fall (also spring for nursing students only). Messrs. King, Dunlap, McCurdy, and Miss Chance.

130. ELEMENTARY PSYCHOLOGICAL STATISTICS (3). Prerequisites, Psychology 26, 27 (or 24, 25), or permission of the instructor.

Distributions and correlations, as in the conventional courses in the subject, with applications to psychological problems.

Two lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$2.00. Miss Adkins, Messrs. Shuford and Jeffrey.

131. DESIGN OF PSYCHOLOGICAL EXPERIMENTS (3). Prerequisites, Psychology 26 (24), 27 (25), 130.

Special problems in design and analysis of psychological research, including sampling and methods of controlling or eliminating undesirable sources of variability.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.
Mr. L. V. Jones.

132. TEST CONSTRUCTION (3). Prerequisite, Psychology 130 or equivalent.

Techniques of constructing and planning of written tests, essay and objective, and of performance tests for aptitudes and achievement. Other types of measuring devices are given some attention.

(1958-1959 and alternate years.) *Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.* Miss Adkins.

133. INTRODUCTION TO SOCIAL PSYCHOLOGY (Sociology 133) (3). Prerequisites, Psychology 26 (24 or 25), 28 (40); (Sociology majors may substitute Soc. 51.); Psych. 28 highly desirable. Permission of the instructor in special cases.

Examination of social systems from various points of view, stressing interpersonal relations and the evaluation of representative methods of observation, experiment, and analysis.

Fall and spring. Messrs. McCurdy, Thibaut, Fillenbaum, and Strickland.

135. PERSONNEL PSYCHOLOGY (3). Prerequisites, Psychology 26 (24 or 25) and a course in statistics.

Methods of analyzing jobs and of selecting, training, motivating, and evaluating employees.

Fall. Miss Adkins and Mr. Jeffrey.

140. PERSONALITY (3). Prerequisites, Psychology 26 (24 or 25), 28 (40).

Development and modern application of the concept of personality as a more or less self-determining system of beliefs, values, and behavior tendencies.

Fall. Messrs. McCurdy, Baughman, and Miss Chance.

141. INTRODUCTION TO CLINICAL PSYCHOLOGY (3). Prerequisites, Psychology 26 (24 or 25), 28 (40), and two 100-level courses.

A survey of the types of problems, methods of evaluation, and treatment techniques encountered in clinical psychology.

Spring. Mr. Baughman and Miss Chance.

146. BEHAVIOR DISORDERS (3). Prerequisites, Psychology 26 (24 or 25), 28 (40).

Major forms of behavioral pathology of children and adults, with an emphasis on understanding, treatment, and prevention of these personality disorders.

Fall. Mr. Welsh and Mrs. Clarke.

148. TESTS AND MEASUREMENTS (3). Prerequisites, Psychology 26, 27 (24, 25); 130 also desirable.

Survey of principal types of psychological measuring instruments.

Spring. Messrs. Welsh and Upshaw.

151. ORIGINAL PROBLEMS (3). Prerequisites, Psychology 26, 27, 28 (40), and permission of the instructor.

Six laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Staff.

165. COMMUNICATION AND OPINION (Journalism 165) (Sociology 165) (3). Prerequisites, any two of the following: Psychology 26 (25), Political Science 41, Sociology 51.

Theories of communication; persuasion and opinion formation; propaganda and pressure groups; the mass media and public opinion; voting behavior.

Fall and spring. Messrs. Adams and Danielson.

181. LABORATORY ANALYSIS IN PERSONNEL PSYCHOLOGY (Business Administration 153) (3). Prerequisite, Psychology 135, or Business Administration 150, or equivalent, and a course in statistics.

A laboratory course in personnel techniques as applied practically to job analysis, constructing application blanks, rating scales, etc.

One lecture and four laboratory hours a week, spring. Laboratory fee, \$3.00. Miss Adkins and Mr. Jeffrey.

Courses for Graduates

201, 202. EXPERIMENTAL METHODS AND PROCEDURES (3 each). Prerequisites for 201, Psychology 121, 130; for 202, Psychology 104, or 122, and 130.

Principal problems of classic experimentation: psychophysics, sensory qualities, perception, reaction time, feeling, work and fatigue, conditioning, learning, etc. Intensive study of principles of experimental design.

One lecture and five laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Mr. Long.

203. EXPERIMENTAL METHODS OF PERSONALITY STUDY (3). Prerequisite, Psychology 104, 140, or 227.

Experimental methods applied to complex behavioral phenomena. Analysis of research studies on aggression, anxiety, and defense mechanisms, with implications for contemporary dynamic personality theories.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$3.00. Messrs. Dahlstrom and Martin.

205. NEUROPHYSIOLOGICAL PSYCHOLOGY (3). Prerequisite, Psychology 106 or permission of the instructor.

The neural bases of behavior, with emphasis on structural character of cord and brain. Laboratory work with slides and specimens.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$3.00. Mr. Dahlstrom.

212. CONTEMPORARY PSYCHOLOGICAL TRENDS (3).

Readings in the original writings of structuralism, behaviorism, Gestalt, psychoanalysis, and other recent movements.

Fall. Mr. E. S. Jones.

225. ANIMAL BEHAVIOR (3). Prerequisites, Psychology 104 or 122.

Survey of experimental work in motivation and development, sensory capacities, learning, and other basic psychological concepts. Simple animal research procedures.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00. Mr. Daniel.

226. EXPERIMENTAL CHILD PSYCHOLOGY (3). Prerequisite, Psychology 126 and permission of the instructor.

Survey of research contributions to the field of development, as regards both aspects (physical, emotional, etc.) and age periods (neonate, preschool, adolescent, etc.). Research methodology emphasized.

Two lecture and two laboratory hours a week, offered as demand warrants. Laboratory fee, \$2.00.

227. THEORIES OF PERSONALITY (Sociology 227) (3). Prerequisite, Psychology 140 or equivalent.

Summary of major contemporary theories of personality, with some consideration of relevant empirical research.

Fall. Messrs. Baughman and McCurdy.

228. ADVANCED SOCIAL PSYCHOLOGY (Sociology 228) (3). Prerequisite, Psychology (Sociology) 133 or equivalent.

Summary of main theoretical and substantive trends in contemporary social psychology, with emphasis on the role of small group theory and research.

Spring. Mr. Thibaut.

230. ADVANCED PSYCHOLOGICAL STATISTICS (3). Prerequisite, Psychology 130 or equivalent.

Bases of various methods for analyzing psychological data, including such topics as hypothesis formulation and testing, contingency analysis, chi square, analysis of variance, partial and multiple correlation, and factor analysis.

Two lecture and two laboratory hours a week, offered 1958-1959 and as demand warrants. Laboratory fee, \$2.00. Miss Adkins and Mr. Shuford.

231. PSYCHOPHYSICS (3). Prerequisite, Psychology 130 or equivalent.

Principles of psychophysics, including classical methods and reproduction, limits, paired comparisons, equal-appearing intervals, etc. Special topics including Weber's law, Fechner's law, prediction of choice, consumer preference, effects of propaganda.

(1959-1960 and alternate years.) *Two lecture and two laboratory hours a week, fall.* Messrs. L. V. Jones and Jeffrey.

232. TEST THEORY AND ANALYSIS (3). Prerequisite, Psychology 130; 132 and 230 desirable.

Principles of mental measurement; theoretical bases of analyzing tests; selection and weighting of composite tests.

(1959-1960 and alternate years.) *Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.* Miss Adkins.

233. METHODS OF SOCIAL PSYCHOLOGY (Sociology 233) (3). Prerequisite, Psychology 133.

Methods of investigation in social psychology with application to the social sciences. Survey methodology with particular emphasis on techniques, contributions, and limitations of public opinion polling.

Spring. Messrs. Thibaut and Back.

234. MATHEMATICAL PSYCHOLOGY (3). Prerequisite, permission of the instructor.

Illustrations of psychology as a quantitative rational science. Topics from a wide range: vision, nervous system, learning, war psychology, attention, fatigue, and others.

Offered 1958-1959 and as demand warrants. Spring. Mr. Shuford.

235. MEASUREMENT OF ATTITUDES (Sociology 235) (3). Prerequisite, Psychology 130 or equivalent.

Major approaches to opinion and attitude measurement, with special reference to the advantages and limitations of each.

Offered 1958-1959 and as demand warrants. Fall. Mr. Upshaw.

236. PSYCHOLOGICAL ASPECTS OF FACTOR ANALYSIS (Statistics 664) (3). Prerequisites, Psychology 130 and 131 or 230, or Statistics 512 and 513, or equivalent, plus a course in analytic geometry.

Topics such as history of factor analysis, two-factor theory, centroid analysis, communalities, orthogonal and oblique factors, simple structure, rotational methods, second-order factors, new developments.

(1959-1960 and alternate years.) *Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.* Mr. Jeffrey.

237. SPECIAL PROBLEMS IN FACTOR ANALYSIS (Statistics 663) (3). Prerequisite, Psychology 236 or Statistics 661 and 662.

Special problems in applied multivariate analysis, particularly designed for advancing the use of these methods in research problems. The emphasis for psychology majors will be on factor analysis.

Six laboratory hours a week, offered as demand warrants. Laboratory fee, \$2.00. Mr. Jeffrey.

251. INDIVIDUAL PSYCHOMETRIC ASSESSMENT (3). Prerequisites, Psychology 130, 148, and permission of the instructor.

Methods of individual testing with emphasis on the Stanford-Binet and Wechsler scales. Background in the literature of testing and practice in administration, scoring, and interpretation of tests.

Six to eight laboratory hours a week, fall. Miss Chance.

252, 253. ASSESSMENT PRACTICUM I, II (3 each). Prerequisites, Psychology 251, 255, and permission of the instructor.

Primarily for second-year graduate students in clinical psychology, assigned in rotation to different psychiatric services at N. C. Memorial Hospital, with emphasis on a variety of psychodiagnostic techniques.

Six to eight laboratory hours a week, fall and spring. Mrs. Clarke and Mr. Rader.

254. OBJECTIVE PERSONALITY TESTS (3). Prerequisites, Psychology 130, 148, and 140 or 227.

Theory and use of objective and empirically developed tests of personality as contrasted with projective techniques. Administration, scoring, and interpretation of representative tests.

Fall. Messrs. Welsh and Dahlstrom.

255. THEORY OF PROJECTIVE TECHNIQUES (3). Prerequisite, Psychology 251 and/or permission of the instructor.

Projective methods of examination, their psychological assumptions, validity and reliability.

Two lecture and two laboratory hours a week, spring. Messrs. Dahlstrom, Baughman, and Schopler.

258. METHODS OF PSYCHOTHERAPY (3). Prerequisites, at least second-year graduate student status and permission of the clinical staff.

Intensive survey of theories and techniques of the most frequently employed methods of psychotherapy.

Spring. Mr. Strupp.

259, 260. CLINICAL PRACTICES IN PSYCHOTHERAPY (3 each). Prerequisites, Psychology 258 and permission of the clinical staff.

Supervised training in psychotherapeutic procedures with clinical subjects, further study of literature, and participation in clinical staff conferences.

Six laboratory hours a week, fall and spring. Messrs. Baughman and Strupp.

271. BEHAVIOR THEORIES (3). Prerequisites, Psychology 104 and 122 and permission of the instructor.

Contemporary theories of behavior and learning taken up critically and comparatively. Student designs problems within each.

Offered 1958-1959 and as demand warrants. Messrs. Long and King.

300. SPECIAL READINGS IN PSYCHOLOGY (3). Prerequisite, permission of the instructor.

Intended for advanced graduate students.

Either semester. Staff.

325. SEMINAR IN THEORETICAL-EXPERIMENTAL PSYCHOLOGY (1, 2, or 3).

The topic will vary with the interests of students and staff members.

Either semester, as announced. Staff.

326. SEMINAR IN CLINICAL PSYCHOLOGY (1, 2, or 3).

Systematic surveys of research in (a) personality dynamics; (b) techniques currently employed with specific traits; (c) techniques in personality analysis; or (d) techniques with maladjusted persons.

Either semester, as announced. Staff.

327. SEMINAR IN ABNORMAL PSYCHOLOGY (1, 2, or 3).

Systematic reviews of theoretical and experimental studies in psychopathology, animal neuroses, and related topics.

Either semester, as announced. Staff.

328. SEMINAR IN SOCIAL PSYCHOLOGY (Sociology 328) (3). Prerequisite, Psychology (Sociology) 133 or equivalent.

Time to be arranged. Staff.

330. SEMINAR IN QUANTITATIVE PSYCHOLOGY (1, 2, or 3).

A seminar either on a particular topic to be announced or on a variety of developments in quantitative psychology.

Either semester, as announced. Staff.

340. SEMINAR IN MEDIA ANALYSIS (Journalism 340) (Sociology 340) (3). Prerequisites, graduate standing in journalism, psychology, sociology, or anthropology, and permission of the instructor.

Students will participate in the design and execution of a media research project.

Spring. Mr. Danielson.

341. ADVANCED RESEARCH (3).

Six laboratory hours a week, fall or spring. Laboratory fee, \$3.00. Staff.

SCHOOL OF PUBLIC HEALTH

- Professors: E. G. MCGAVRAN, H. G. BAITY,¹ MARGARET BLEE, A. H. BRYAN, E. T. CHANLETT, S. S. CHIPMAN, B. G. GREENBERG, RUTH W. HAY, J. E. LARSH, JR., LUCY S. MORGAN, DANIEL A. OKUN, EUNICE N. TYLER, J. J. WRIGHT
- Research Professors: ROBERT E. COKER, W. W. CORT, WARFIELD GARSON
- Associate Professors: CHARLES M. CAMERON, JR., LOUISE CANTRELL, J. C. CASSEL, G. O. DOAK, MARGARET B. DOLAN, ELLEN ELIZABETH GUILLOT, J. R. HENDRICKS, G. L. KELSO, ROSEMARY M. KENT, ELIZABETH L. McMAHAN, FRANCES MACKINNON, ELTA MAE MAST, HENRY TAUBER, CHARLES M. WEISS
- Visiting Professor: JOSEPH O. IRWIN
- Research Associate Professors: KURT BACK, THOMAS G. DONNELLY, ANN CATON HANSON, NORMAN MILLER, AHMED SARHAN
- Visiting Associate Professors: J. W. R. NORTON, JUNJIRO OGAWA
- Assistant Professors: EARL L. DIAMOND, JOHN PATON FILLEY, LEON D. FREEDMAN, CHARLOTTE P. McLEOD, JOSEPH PORTNOY, LYMAN A. RIPPERTON, JAMES D. THAYER
- Research Assistant Professors: BERNARD S. PHILLIPS,² HARRY UPSHAW
- Visiting Assistant Professors: O. D. GARVIN, RODDY MILLER LIGON, JR.
- Instructors: GEORGE R. CANNEFAX, MARTIN J. WALSH, THOMAS C. WASHBURN, BRADLEY WELLS
- Research Associates: EVELYN ANDERSON, DAVID B. DUNCAN,³ HILTON GOULSON, JAMES GRIZZLE
- Graduate Assistants: A. RAY ABERNATHY, JAMES HENRY FINGER, DONALD R. JOHNSTON, JOSEPH G. LOVETT, KHALIL HOSNY MANCY, JAMES J. McKEOWN, LEE A. MOORE, JR., RAFAEL B. RODRIGUEZ, PAUL D. VAN ZANDT, ALLEN YARINSKY
- Research Fellows: CHARLES FOSTER FEDERSPIEL, ALAN J. GROSS, BERNARD S. PASTER-NACK, LESTER W. PRESTON, JR.

Students other than those in schools of the Division of Health Affairs must obtain permission from their deans before registering for any course in public health. Students in the School of Public Health are exempted from the payment of the laboratory fees listed in the following course descriptions.

For further information see the catalogue of the School of Public Health.

Courses for Undergraduates

P.H. 16. METHODS AND MATERIAL IN TEACHING IN PUBLIC HEALTH EDUCATION (Education 93) (3).

Four lecture and four laboratory hours a week, period⁴ one, spring. Mrs. McMahan.

P.H. 17. STUDENT TEACHING IN COMMUNITY HEALTH EDUCATION (Education 94) (9).

Period two, spring. Fee, \$30.00. Mrs. Kent and Mrs. McMahan.

P.H. 18. ENVIRONMENTAL SAFETY AND FIRST AID (2).

Four lecture hours a week, period one, spring. Mrs. Kent.

1. Professor, Emeritus.

2. Resigned September 1, 1958.

3. Resigned August 31, 1958.

4. Throughout this section of the catalogue the word period will be used to signify the first or second half of the semester.

P.H. 19. SCHOOL AND COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (4).

Three lecture and two demonstration hours a week, fall. Miss Morgan and Mr. Walker.

P.H. 90. BASIC HEALTH SCIENCES (4).

Two lecture and four laboratory hours a week, fall. Messrs. Chanlett, Hendricks, Kelso, and staff of Department of Biostatistics.

P.H. 110ab. PRINCIPLES OF PUBLIC HEALTH (8).

Three lecture and two laboratory hours a week, fall; two lecture and four laboratory hours a week, spring. Mrs. Kent.

Courses for Graduates and Advanced Undergraduates

P.H. 102. PUBLIC HEALTH PRINCIPLES AND PRACTICE (4½).

Four lecture hours a week, period one, fall; five lecture hours a week, period two, fall. Dr. McGavran and staff of School of Public Health.

P.H. 102c. SEMINAR IN PUBLIC HEALTH PRACTICE (1½). Prerequisites, P.H. 102, 103.

Three seminar hours a week, period one, spring. Dr. Wright and faculty of School of Public Health.

P.H. 103. APPLIED PUBLIC HEALTH PRINCIPLES AND PRACTICES (2½). Corequisite, P. H. 102.

Three to six laboratory hours a week, period one; six laboratory hours a week, period two, fall. Dr. Wright, the staff of School of Public Health, and the staffs of cooperating local health departments.

P.H. 105. HEALTH AND SICKNESS IN MODERN SOCIETY (2).

Four lecture hours a week, period one, spring. Dr. Cassel.

P.H. 106. VENEREAL DISEASE CONTROL PROBLEMS (1½).

Three lecture hours a week, period two, fall. Dr. Garson.

P.H. 115. INTRODUCTION TO PUBLIC HEALTH EDUCATION (2).

Four hours of lecture and demonstration a week, period one, spring. Miss Morgan and staff.

P.H. 121. PUBLIC HEALTH STATISTICS (3).

Two lecture and two laboratory hours a week, periods one and two. Laboratory fee, \$3.00. Mr. Greenberg.

P.H. 122. PRINCIPLES OF STATISTICAL INFERENCE (Statistics 100) (3).

Prerequisite, college algebra.

Introduction to fundamental concepts of statistical inference. The role of statistical thinking in the scientific method. Uses and limitations of inverse probability. Modern notions of statistical tests as rules of inductive behavior.

Three lecture hours a week, spring. Mr. Diamond.

P.H. 123. STATISTICAL ANALYSIS I (Statistics 101) (4). Prerequisite, college algebra; corequisite, integral calculus.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$3.00. Mr. Kuebler.

P.H. 124. STATISTICAL ANALYSIS II (Statistics 102) (4). Prerequisite, Statistics 101.

Two lecture and four laboratory hours a week, spring. Laboratory fee, \$3.00. Mr. Greenberg.

P.H. 131. PARASITISM AND HUMAN DISEASE (2½). Prerequisites, Zoology 41, 42, or equivalent.

One lecture and three laboratory hours a week, fall. Laboratory fee, \$4.00. Messrs. Larsh, Hendricks, and assistants.

P.H. 135. HUMAN PARASITOLOGY (2½). Prerequisites, P.H. 131, or Zoology 41, 42, or equivalent.

One lecture and three laboratory hours a week, fall. Laboratory fee, \$3.00. Messrs. Larsh, Hendricks; assistants.

P.H. 140. PUBLIC HEALTH PROBLEMS (1½-3).

Three to six hours a week, fall and spring. Staff of School of Public Health.

P.H. 141. PUBLIC HEALTH NUTRITION (2).

Two lecture hours a week, periods one and two, fall, or four lecture hours a week, period one, spring. Miss MacKinnon.

P.H. 148. ELEMENTARY BIOCHEMISTRY AND NUTRITION (Biochemistry 108) (3). Prerequisites, Organic Chemistry 61, 62, or equivalent.

Three lecture hours a week, fall. Mr. Irwin and staff, Mr. Bryan and staff.

P.H. 153. PROBLEMS IN MATERNAL AND CHILD HEALTH (2).

Two seminar hours a week, both semesters. Dr. Chipman and staff.

P.H. 154. SOCIAL PROBLEMS OF CHILDREN (1).

This course deals with social problems of children and their families, and includes study of community agencies and services established to meet the social problems of families with children. It is designed to increase in public health workers an understanding of human need and community agencies.

Two hours a week, spring. Miss Guillot.

P.H. 158. GROWTH AND DEVELOPMENT (2).

Four lecture hours a week, period one, spring. Miss Cantrell.

P.H. 160. PRINCIPLES OF SANITARY SCIENCE (2). Prerequisites, college mathematics, chemistry, and physics. Corequisite P.H. 162.

One lecture and two laboratory hours a week, fall. Mr. Chanlett.

P.H. 161. THE PRINCIPLES OF SANITATION (2).

Three lecture hours a week and five three-hour laboratory sessions, period one, fall. Mr. Kelso.

P.H. 162. SANITARY CHEMISTRY AND BIOLOGY (3). Prerequisite, general chemistry.

Three lecture hours a week, fall. Mr. Weiss.

P.H. 163. ANALYTICAL METHODS IN SANITARY CHEMISTRY AND BIOLOGY (3). Prerequisite, general chemistry.

One lecture and four laboratory hours a week, fall. Laboratory fee, \$5.00. Mr. Weiss.

P.H. 165. ENVIRONMENTAL SANITATION METHODS (2½). Prerequisites, P.H. 102, 131, 160, 162, 163.

Three lecture and four laboratory hours a week, period one, spring. Laboratory fee, \$3.50. Mr. Kelso.

P.H. 166. RADIOACTIVITY IN WATER, FOOD, AND AIR (2). Prerequisites, college mathematics, chemistry, physics.

One lecture and two laboratory hours a week, both semesters. Messrs. Doak, Chanlett, and Freedman, and a member of Department of Sanitary Engineering.

P.H. 168. INSTRUMENTAL METHODS OF ANALYSIS (3). Prerequisites, quantitative analysis or permission of the instructor.

Two lecture and two laboratory hours a week, fall. Mr. Spell.

P.H. 181. PUBLIC HEALTH PROBLEMS IN INDUSTRY (2). Prerequisite, P.H. 102.

Four hours a week, period one, spring. Mr. Chanlett.

P.H. 185. MENTAL HEALTH (2).

Three lecture and two seminar hours a week, period one, spring. Dr. Filley.

P.H. 190. PRINCIPLES AND PRACTICES OF PUBLIC HEALTH NURSING (3).

Three lecture hours a week, fall. Miss Hay and Mrs. Dolan.

P.H. 191. PUBLIC HEALTH NURSING ORGANIZATION AND ADMINISTRATION (3). Prerequisite, P.H. 190 or equivalent.

Six lecture hours a week, period one, spring. Miss Hay.

P.H. 192. GROUP WORK: ITS INTERPRETATIVE FACTORS (2).

Four lecture hours a week, period one, spring. Miss Blee.

P.H. 193. APPLIED PUBLIC HEALTH NURSING FIELD PRACTICE (8).

Five and one-half days a week, period two, spring. Misses Hay, Blee, Mrs. Dolan, and public health nursing supervisors of teaching centers.

P.H. 195. THE PUBLIC HEALTH NURSE IN A MATERNAL HEALTH PROGRAM (3).

Three lecture hours a week, fall. Miss Blee.

P.H. 196. SPECIAL FIELDS IN PUBLIC HEALTH NURSING (6).

Twenty-two lecture hours a week for four weeks, summer session. Misses Hay and Blee.

P.H. 197. PHILOSOPHY AND PRINCIPLES OF SUPERVISION IN PUBLIC HEALTH NURSING (3). Prerequisite, public health nursing experience or permission of the instructor.

Three lecture hours a week, fall. Mrs. Dolan.

Courses for Graduates

P.H. 201. EPIDEMIOLOGY (3).

Three lecture and seminar hours a week, spring. Drs. McGavran and Cassel.

P.H. 202. TUBERCULOSIS CONTROL METHODS (2). Prerequisite, medical degree.

Two lecture and four demonstration hours a week, period two, fall. Dr. Cassel.

P.H. 203. STATISTICAL METHODS IN EPIDEMIOLOGY (3). Prerequisites, P.H. 102, 121.

Two lecture and two laboratory hours a week, spring. Drs. Cameron, Wright, and Mr. Greenberg.

P.H. 204. THE CONTROL OF ACUTE COMMUNICABLE DISEASE (2).

Four lecture hours a week, spring. Drs. Chipman, Cassel, and visiting lecturers.

P.H. 206. VENEREAL DISEASE CONTROL METHODS (2). Prerequisite, medical degree.

Four lecture hours a week, period one, spring. Dr. Garson.

P.H. 211. PUBLIC HEALTH ADMINISTRATION (3). Prerequisite, P.H. 102.

Three lecture and four or more field-trip hours a week, spring. Drs. Wright and Cameron.

P.H. 213. MEDICAL CARE (2). Prerequisite, P.H. 105.

Four hours a week, period two, spring. Dr. Cameron.

P.H. 214ab. PUBLIC HEALTH EDUCATION FIELD PRACTICE (8).

Open only to majors in health education.

Full-time, period two, spring. Miss Morgan, Mrs. Tyler, Mrs. Kent, Mrs. McMahan, and health education counselors of teaching centers.

P.H. 215. COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (2).

Six lecture and demonstration hours a week, period one, spring. Miss Morgan and visiting lecturers.

P.H. 217abc. PROBLEMS IN HEALTH EDUCATION (4½-9). Prerequisites to be arranged with faculty adviser in each individual case.

Two lecture hours a week, period one, and four lecture and demonstration hours a week, period two, fall; 217b. eight lecture and demonstration hours a week, period one, spring. Mrs. Tyler and visiting lecturers.

P.H. 219. SCHOOL HEALTH EDUCATION (2).

Two lecture hours a week, period one, fall; four lecture and demonstration hours a week, period two, fall. Mrs. McMahan, Miss Mast, and visiting lecturers.

P.H. 220. INTRODUCTION TO SPECIAL FIELDS IN PUBLIC HEALTH EDUCATION (6). Prerequisite, P.H. 215.

Twelve lecture and laboratory hours a week, spring. Miss Morgan and staff.

P.H. 221. THE ROLE OF VITAL STATISTICS IN ADMINISTRATION (2).

Prerequisite, P.H. 121.

Two lecture hours a week, spring. Mr. Greenberg.

P.H. 222. FIELD WORK IN PUBLIC HEALTH STATISTICS (8). Prerequisites, P.H. 121 and 221.

Summer session. Mr. Greenberg and statistical consultants in state health departments.

P.H. 232. PARASITOLOGICAL METHODS (4). Prerequisite, P.H. 135.

Two lecture and four laboratory hours a week, spring. Laboratory fee, \$8.00. Mr. Hendricks and assistants.

P.H. 233. MALARIOLOGY (3). Prerequisites, P.H. 131, or Zoology 41, 42, or equivalent.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$4.00. Messrs. Larsh, Hendricks, staff of the Department of Sanitary Engineering, and assistants.

P.H. 234. MEDICAL ENTOMOLOGY (2½). Prerequisites, Zoology 41, 42, and P.H. 135, or equivalent.

One lecture and three laboratory hours a week, spring. Laboratory fee, \$4.00. Mr. Hendricks and assistants.

P.H. 241. PRINCIPLES OF PUBLIC HEALTH NUTRITION (2).

Four lecture hours a week, period one, spring. Dr. Bryan.

P.H. 242ab. ADVANCES IN HUMAN NUTRITION (a-1; b-2). Prerequisite, a major in nutrition or equivalent courses in biochemistry and physiology.

Two lecture hours a week, period two, fall; four lecture hours a week, period one, spring. Dr. Bryan.

P.H. 243ab. PROGRAMS IN PUBLIC HEALTH NUTRITION (a-1; b-2). Prerequisite or corequisite, P.H. 242ab or equivalent.

A course for students majoring in nutrition. Organization and appraisal of programs designed to improve the nutrition of populations, the class work to be supplemented with field observation and/or practice.

One lecture hour and two observation hours a week, period two, fall; three lecture hours and two observation hours a week, period one, spring. Miss MacKinnon.

P.H. 244. FIELD WORK IN PUBLIC HEALTH NUTRITION (8). Prerequisite, P.H. 243.

Open only to students majoring in the field.

Period two, spring. Miss MacKinnon and nutrition consultants in state health departments.

P.H. 245. SEMINAR IN PUBLIC HEALTH NUTRITION (2). Prerequisites, P.H. 242, 243, or equivalent.

Open only to students majoring in the field.

Summer session. Miss MacKinnon.

P.H. 246. THE NUTRITION SURVEY (2). Prerequisite, P.H. 242 or equivalent.

Summer session. Dr. Bryan.

P.H. 249. WORKSHOP IN PUBLIC HEALTH NUTRITION (2-6).

Open by special permission to a limited number of qualified graduate students.

Fall and spring. Dr. Bryan and Miss MacKinnon.

P.H. 250ab. MATERNAL AND CHILD HEALTH (6).

Six hours a week, spring. Dr. Chipman and staff.

P.H. 252ab. CLINICAL TRAINING IN MATERNAL AND CHILD HEALTH (2).

Planned on the basis of individual student interest and need. Offered concurrently with P.H. 250.

Three hours a week, spring. Dr. Chipman.

P.H. 255. FIELD TRAINING OR EXPERIENCE IN MATERNAL AND CHILD HEALTH (5-10).

For majors in maternal and child health.

Summer session. Dr. Chipman and staff.

P.H. 258. MATERNAL AND CHILD HEALTH (3).

An introductory course in maternal and child health for physicians and other selected students.

Three hours a week, fall. Dr. Chipman and staff, assisted by members of the Department of Nutrition, of Obstetrics and Gynecology, and of the State Board of Health.

P.H. 258a. MATERNAL AND CHILD HEALTH (3).

Three seminar hours a week, period one, spring. Dr. Chipman and staff, assisted by members of the departments of Obstetrics and Gynecology and Public Health Nutrition.

P.H. 258b. MATERNAL AND CHILD HEALTH (1½).

Three semester hours a week, period one, spring. Dr. Chipman and staff, assisted by members of the departments of Obstetrics and Gynecology and Public Health Nutrition.

P.H. 260. THE PLANNING OF ENVIRONMENTAL SANITATION PROGRAMS (2). Prerequisites, P.H. 102, 160, or 161.

Three lecture and two laboratory hours a week, period two, spring. Messrs. Chanlett and Kelso.

P.H. 261. MILK AND FOOD CONTROL (2½). Prerequisites, P.H. 102, 131, 160, 162, 163.

Three lecture and four laboratory hours a week, period two, spring. Laboratory fee, \$3.50. Mr. Kelso.

P.H. 262. LIMNOLOGY AND STREAM POLLUTION (3). Prerequisites, P.H. 162 and 163.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$4.00. Messrs. Okun and Weiss.

P.H. 264. CHEMISTRY AND BIOLOGY OF WATER AND WASTE TREATMENT PROCESSES (5). Prerequisites, P.H. 162, 163.

Three lecture and four laboratory hours a week, spring. Laboratory fee, \$5.00. Mr. Weiss.

P.H. 272. WATER SUPPLY AND SEWERAGE (5). Prerequisite, engineering degree.

Four lecture and two laboratory hours a week, fall. Laboratory fee, \$4.00. Mr. Okun.

P.H. 273. WATER PURIFICATION, SEWAGE TREATMENT AND DISPOSAL (5). Prerequisites, P.H. 162, 163, 272; corequisite, P.H. 264.

Four lecture and two laboratory (design) hours a week, spring. Laboratory fee, \$4.00. Mr. Okun.

P.H. 275. INDUSTRIAL WATER SUPPLY AND LIQUID WASTES (3). Prerequisites, P.H. 162, 163.

Three lecture hours a week, spring. Mr. Lamb.

P.H. 280. FUNDAMENTALS OF AIR HYGIENE (3). Corequisites, P.H. 160, 162.

Two lecture and two laboratory hours a week, fall. Messrs. Chanlett and Ripperton.

P.H. 281. INDUSTRIAL HYGIENE AND SANITATION (2½). Prerequisites, P.H. 160, 162, 181, or with permission of the instructor.

Three lecture and four laboratory hours a week, period two, spring. Laboratory fee, \$3.00. Mr. Chanlett.

P.H. 282. EFFECTS AND MEASURES OF AIR POLLUTANTS (3). Prerequisite, P.H. 280.

Two lecture and two laboratory hours a week, spring. Mr. Ripperton.

P.H. 283. CONTROL OF AIR POLLUTANTS (3). Prerequisites, P.H. 280; corequisite, P.H. 282.

Two lecture and two laboratory hours a week, spring. Messrs. Chanlett and Ripperton.

P.H. 297. ADVANCED SUPERVISION IN PUBLIC HEALTH NURSING (3). Prerequisite, P.H. 197 or equivalent.

For majors in public health nursing supervision.

Six hours a week, period one, spring. Mrs. Dolan.

P.H. 298. SEMINAR IN PUBLIC HEALTH NURSING SUPERVISION (6). Course devoted to the study of problems in public health nursing practice and the development of a project in public health nursing education or service.

Period two, spring. Mrs. Dolan and Miss Hay.

Research Courses

P.H. 301. RESEARCH IN EPIDEMIOLOGY (1½ or more).

A research course for those qualified to do independent investigation under supervision. Admission to this course is granted only after consultation with the instructor, who must assign or approve the subject of research. A student may spend part or all of his time in research.

Three or more laboratory hours a week. Drs. McGavran and Wright.

P.H. 305abc. SEMINAR IN PUBLIC HEALTH ADMINISTRATION (1 each).

Two hours a week, period two, fall; periods one and two, spring. Drs. McGavran, Wright, and Mr. Ligon.

P.H. 306. RESEARCH IN VENEREAL DISEASE (1½ or more).

Properly qualified students may work on laboratory problems in the venereal disease field. Admission to this course is granted only after consultation with the instructor.

Three or more laboratory hours a week, fall and spring. Dr. Garson and staff.

P.H. 311. RESEARCH IN PUBLIC HEALTH ADMINISTRATION (1½ or more).

Three or more laboratory hours a week. Drs. Wright and McGavran.

P.H. 314. SEMINAR ON THE ORGANIZATION AND ADMINISTRATION OF SCHOOL AND COMMUNITY HEALTH EDUCATION (3).

Open by special arrangement to students doing advanced graduate work. Directed readings and reports.

Three hours a week, fall and spring. Miss Morgan, Mrs. Tyler, and Mrs. Kent.

P.H. 315. RESEARCH IN HEALTH EDUCATION (1½ or more).

Open by special arrangement to students doing advanced graduate work in public health education.

Three or more laboratory hours a week, fall and spring. Miss Morgan, Mrs. Tyler, and Mrs. Kent.

P.H. 316. ADVANCED FIELD TRAINING IN HEALTH EDUCATION (8).

By special arrangement for advanced graduate students.

Period to be arranged, fall and spring. Miss Morgan, Mrs. Tyler, and Mrs. Kent.

P.H. 317ab. SEMINAR IN HEALTH EDUCATION (3 each semester).

Open by special arrangement to students doing advanced graduate work.

Three hours a week, fall and spring. Miss Morgan, Mrs. Tyler, and Mrs. Kent.

P.H. 321. RESEARCH IN STATISTICS (1½ or more).

Individual arrangements may be made by the advanced student to spend part or all of his time in supervised investigation of selected problems in statistics.

Three or more laboratory hours a week. Messrs. Greenberg and Kuebler.

P.H. 332. RESEARCH IN PARASITOLOGY (1½ or more).

Open to advanced students. Research problems in parasitology, especially in the field of experimental immunology of parasitic infections, are considered.

Three or more laboratory hours a week. Laboratory fee, \$15.00. Mr. Larsh.

P.H. 341. RESEARCH IN PUBLIC HEALTH NUTRITION (1½ or more).

A research course for those qualified to do independent field or laboratory investigation under supervision.

Three or more laboratory hours a week. Dr. Bryan.

P.H. 361. RESEARCH IN SANITARY SCIENCE (1½ or more).

Three or more laboratory hours a week. Laboratory fee, \$10.00. Messrs. Challett, Kelso, Weiss, and Ripperton.

P.H. 371. RESEARCH IN SANITARY ENGINEERING (1½ or more). Prerequisites or corequisites, P.H. 162, 163, 264, 272, 273.

Three or more laboratory hours a week. Laboratory fee, \$10.00. Messrs. Chantlett, Okun, and Weiss.

P.H. 381. RESEARCH IN INDUSTRIAL SANITATION (1½ or more).

Three or more laboratory hours a week. Laboratory fee, \$10.00. Messrs. Chantlett, Kelso, and Ripperton.

DEPARTMENT OF RADIO, TELEVISION, AND MOTION PICTURES

Professor: EARL WYNN

Associate Professors: JOHN M. EHLE, JR.,¹ WESLEY H. WALLACE, JOHN B. ADAMS,
WAYNE A. DANIELSON

Assistant Professors: J. S. CLAYTON,² DONALD KNOEFFLER, ROSS SCROGGS, JOHN E.
YOUNG²

Lecturer: ELMER R. OETTINGER, JR.

Interests of students pursuing a major in the Department of Radio, Television, and Motion Pictures fall under the following categories: (1) writing; (2) speaking or acting; (3) the planning of programs; (4) the production of programs; (5) commercial aspects of the media³; and (6) the operation of equipment.

The course work, laboratories, and extracurricular activities of the department are planned with three objectives in mind: to give the student an opportunity to secure a broad educational background; to provide him with a survey of the media; and to offer him an opportunity to explore those phases of radio, television, and motion pictures in which he is most talented. Our aim is to help prepare the student first as a thoughtful, responsible human being and second as a skillful artist, teacher, and/or practitioner.

Certain aptitudes and backgrounds on the part of the student are necessary to his successful pursuit of the RTVMP major. Attempts to discover these backgrounds and aptitudes are made through a qualifying examination taken during the sophomore year; observations of the student's extracurricular activities in radio, television, and motion pictures, especially during the freshman and sophomore years; most careful observation of all classroom and laboratory work; and private conferences with his adviser and instructors. A student who plans a major in the field of radio, television, and motion pictures is advised to take RTVMP 45 during the first semester of his sophomore year.

1. Absent on leave, fall semester, 1958-1959.

2. Absent on leave, 1958-1959.

3. A student may major in the School of Business Administration and take his non-divisional electives in the Department of Radio, Television, and Motion Pictures. See the special bulletin of the School of Business Administration.

Requirements for the B.A. degree with a major in RTVMP consist of a minimum of twenty courses beyond the General College requirements, six of which are required in the major field as follows:

Required:	Elect two:
RTVMP 45	RTVMP 59
RTVMP 58	RTVMP 79
RTVMP 78	⁴ RTVMP 76
Elect one:	⁴ RTVMP 77
⁴ RTVMP 76	⁴ RTVMP 87
⁴ RTVMP 77	
⁴ RTVMP 87	

Upon the recommendation of the departmental adviser, the student shall elect *six to eight courses in allied departments of the Division of the Humanities; and six to seven courses from other divisions.*

Students interested in working for Honors or Highest Honors in the field of writing or in other aspects of radio, television, and motion pictures should see the chairman of the department at the end of the sophomore year and not later than the registration period for the first semester of the senior year. (See page 155.)

Candidates for Honors will be permitted to take seven courses toward the major instead of the regularly required six courses.

The Department of Radio, Television, and Motion Pictures offers prospective graduate students two opportunities for graduate study: work leading to a degree of Master of Arts in Communication; and a more limited program leading to a Certificate in Communication. Among entrance requirements for either program are: completion of sixty or more semester hours with grades of B or better in the areas of the humanities and the social sciences; successful completion of the undergraduate requirements (or the equivalent) for a major in radio, television, and motion pictures; and completion at the undergraduate level of a minimum of fifteen semester hours of work in a single department other than radio, television, and motion pictures.

Interested students may obtain details of other requirements and full information about these advanced programs either from the Graduate School or from the Department of Radio, Television, and Motion Pictures.

Courses for Undergraduates

RTVMP 45. CRITICAL ANALYSIS OF RADIO, TELEVISION, AND MOTION PICTURES (3). Sophomore elective, open to juniors and seniors. Limited to 60 students.

Works of artistic merit are studied in terms of the intentions and attainment of the artists involved in their preparation. Through reading and study, as well as through the classroom use of scripts, radio recordings and television and motion

4. Only two of these may be elected; RTVMP 76 and RTVMP 87 may not be elected as a combination.

picture films, the student becomes acquainted with the contributions made by the writer, director, performers and other artists working in a production, and of their relationships.

Fall and spring. Fee for materials, \$3.00. Mr. Oettinger and staff.

RTVMP 58. DEVELOPMENT OF BROADCASTING, PART I (3). Open to juniors and seniors only.

Basically a two-semester course, Part I deals specifically with definitions of broadcasting, discussion of the importance of broadcasting and motion pictures, organization of stations and networks, the role of the "public interest" in broadcasting, comparisons of the American system with those of other nations, and a survey of broadcasting career opportunities.

Fall and spring. Mr. Wallace.

RTVMP 59. DEVELOPMENT OF BROADCASTING, PART II (3). Prerequisite, RTVMP 58.

A continuation of the historical, social, cultural and economic aspects of broadcasting with emphasis on the study of agencies and institutions closely identified with the economic aspects, surveys of audience characteristics and factors which influence program structures, consideration of relationships between broadcasters and advertisers, and a study of station program policies, plans, and operation.

Fall. Mr. Wallace.

RTVMP 76. RADIO PRODUCTION ARTS (4). Open to radio, television, and motion pictures and dramatic art majors only.

A study of the principles and methods of radio production and direction.

Two lecture and four laboratory hours a week, fall. Fee for materials, \$4.00. Mr. Oettinger.

RTVMP 77. TELEVISION PRODUCTION ARTS (4). Open to radio, television, and motion pictures and dramatic art majors only.

A study of the principles and methods of television production and direction.

Two lecture and four laboratory hours a week, fall and spring. Fee for materials, \$4.00. Messrs. Knoepfler and Clayton.

RTVMP 78. WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART I (3).

Non-majors wishing to register for this course must have permission of the instructor.

A basic course dealing chiefly with drama in which the student writes two dramatic scripts, does routine continuity for radio and television, and completes a special writing project which he selects in consultation with the instructor.

Fall and spring. Messrs. Ehle and Oettinger.

RTVMP 79. WRITING FOR RADIO, TELEVISION, AND MOTION PICTURES, PART II (3). Prerequisite, RTVMP 78. Non-majors wishing to register for this course must have permission of the instructor.

A continuation of RTVMP 78.

Spring. Mr. Ehle.

RTVMP 87. MOTION PICTURE PRODUCTION ARTS (4). Open to radio, television, and motion pictures and dramatic art majors only.

Physics 45, Photography, is highly recommended as preparation for this course.

A study of the principles and methods of motion picture production and direction.

Two lecture and four laboratory hours a week, spring. Fee for materials, \$4.00. Mr. Scroggs.

RTVMP 99. COURSE FOR HONORS⁵ (3). Permission of the Chairman of the Department must be secured.

Reading, the preparation of an essay for Honors or the preparation of a creative work or works for Honors in Writing in radio, television, or motion pictures under the direction of a departmental advisor. This is a two-semester course. Credit will not be awarded until the end of the second semester of work.

Fall and spring. Mr. Ehle and members of the Department of Radio, Television, and Motion Pictures staff.

Courses for Graduates

251. MEDIA RESEARCH METHODS (Journalism 251) (3). Prerequisite, graduate standing in journalism or radio, television, and motion pictures.

Bibliography; elements of experimental design and survey research methodology; audience studies and audience measurement problems; content analysis; representative studies.

Fall and spring. Messrs. Adams and Danielson.

260. TELEVISION WRITING (3). Prerequisite, permission of the instructor.

Fall. Mr. Ehle.

261. TELEVISION PRODUCTION (3). Prerequisite, RTVMP 77.

Two lecture and two laboratory hours a week, fall. Fee for materials, \$5.00. Mr. Knoepfler.

262. TELEVISION AND MOTION PICTURE PHOTOGRAPHY I (3). Prerequisite, RTVMP 87.

A study in the creative use of the camera as an instrument of pictorial presentation.

(Not offered in 1959-1960.) *One lecture and four laboratory hours a week. Fee for materials, \$5.00.* Mr. Scroggs.

264. BROADCAST PROMOTION AND PUBLIC RELATIONS (3). Prerequisite, RTVMP 59.

(Not offered in 1959-1960.) Mr. Wallace.

265. CREATIVE PROGRAMMING FOR RADIO AND TELEVISION (3). Prerequisite, RTVMP 59.

(Not offered in 1959-1960.) Mr. Wallace.

266. STATION MANAGEMENT (3). Prerequisite, RTVMP 59.

A study of radio and television station structure and organization, communications law, personnel management, station rate structure, and copyright and licensing organizations.

(Not offered in 1959-1960.) Mr. Wallace.

267. STAGING FOR TELEVISION AND MOTION PICTURES I (3). Prerequisite, Dramatic Art 66 or permission of the instructor.

Theory and practice in the designing of scenery and lighting for television and motion pictures.

One lecture and four laboratory hours a week, spring. Fee for materials, \$5.00. Mr. Wynn.

268. STAGING FOR TELEVISION AND MOTION PICTURES II (3). Prerequisite, 267. A continuation of 267.

(Not offered in 1959-1960.) *One lecture and four laboratory hours a week. Fee for materials, \$5.00.* Mr. Wynn.

270. RADIO WRITING (3). Prerequisite, permission of the instructor.

Spring. Mr. Clayton.

5. See the Program for Honors Work in the Division of the Humanities.

271. RADIO PRODUCTION (3). Prerequisite, RTVMP 76.

(Not offered in 1959-1960.) *Two lecture and two laboratory hours a week. Fee for materials, \$3.00.* Mr. Clayton.

280. MOTION PICTURE WRITING (3). Prerequisite, permission of the instructor.

(Not offered in 1959-1960.) Mr. Ehle.

281. MOTION PICTURE PRODUCTION (3). Prerequisite, RTVMP 87.

Two lecture and two laboratory hours a week, spring. Fee for materials, \$5.00. Mr. Wynn.

282. MOTION PICTURE AND TELEVISION PERFORMANCE (3). Prerequisite, permission of the instructor.

Theory and practice in speaking and acting for the visual-aural media.

Two lecture and two laboratory hours a week, fall. Fee for materials, \$4.00. Mr. Wynn.

290. SOCIAL ASPECTS OF MASS COMMUNICATION (3). Required.

A survey of current research in communication media as related to propaganda and public opinion and cultural and social patterns, with particular emphasis upon those backgrounds essential to an understanding of the impact of communication media on society.

Spring. Mr. Wallace.

300. SEMINAR IN COMMUNICATION (3). Required.

Individual research in a specialized field under the direction of a member of the graduate teaching staff.

Spring. Mr. Wallace and graduate staff.

350. THESIS (3). Required.

Graduate staff.

RECREATION ADMINISTRATION

(See Sociology and Anthropology)

DEPARTMENT OF RELIGION

Professors: BERNARD BOYD, ARNOLD S. NASH, J. P. HARLAND, A. C. HOWELL, P. H. EPPS

Instructor: MARVIN B. BERRY

Part-time Instructor: SAMUEL MAGILL

Graduate Assistant: MARTHA RICHARDSON

The first function of the department is to further an understanding of the origin, development, and significance of the Judaic-Christian tradition. Thus, the department is primarily concerned with the Biblical literature, the history of religious thought, and the implications of Christianity for current thought and practice. The department seeks further to relate the study of the Bible and religion to the work of other departments in the belief that Christianity is relevant to

the whole of knowledge. For this reason, courses in religion are offered not only by instructors within the department, but by others in related fields.

Any student who plans to major in religion should consult with the departmental chairman as early as possible to insure proper arrangement of his course of study. If, for instance, the student plans further study at a seminary or graduate school, he will want his program to accord with recommendations of the American Association of Theological Schools. If, on the other hand, the student is in the School of Education, he will want to qualify for accreditation for high school teaching of religion along with some other subject. However, many who seek a major in religion may not plan to follow either of these courses professionally and use the services of the department to gain through their liberal arts education an aptitude for church leadership. Students who intend to find employment in such diverse fields as agriculture, industry or commerce, but who do not desire to work on a professional degree during their undergraduate years, may choose to major in religion. Consequently, there is no fixed set of courses for an undergraduate major. Each student, after taking the basic courses, Religion 28 and Religion 30, builds on his foundation a program of study appropriate to his present needs. For example, a major in religion for a student whose primary interest is in education, whether in school or church, will consist of the following courses in the department: 31, 45, 80, 81, 95, and 103.

Programs of study leading to M.A. and Ph.D. degrees are not presently offered but will be proposed in the future. Plans have already been made for courses of study which provide a minor in religion for M.A. and Ph.D. candidates in other fields. The purpose of such courses is to furnish future teachers of, for example, education or philosophy or sociology with a context of study that will enable them to see the place of their special field of interest in a Christian view of man, history, and society.

Courses for Undergraduates

28. THE ORIGIN AND SIGNIFICANCE OF THE BIBLE (3).

An introduction to the literature of the Bible, with special consideration of the impact of the Hebrew-Christian faith upon modern man as he seeks a religious orientation in the contemporary situation.

Fall and spring. Messrs. Boyd and Berry.

30. THE RELIGIOUS BACKGROUND OF WESTERN CIVILIZATION (3).

A historical study of the impact of the faith of the Old Testament, Graeco-Roman religion, Teutonic religion, and Christianity upon the life and thought of the Western World.

Spring. Mr. Nash.

31. CHRISTIAN ETHICS AND MODERN PROBLEMS (3).

A consideration of the relevance of the Christian faith to problems of war and peace, economic enterprise, marriage and the family, and the function of the state and international organizations in the contemporary scene.

Spring. Mr. Magill.

45. CHRISTIANITY AND THE RELIGIONS OF THE WORLD (3).

A study of the Christian faith as compared to and contrasted with classical religions, such as Hinduism, Confucianism, Buddhism, Mohammedanism, and also the new political religions, such as Communism and Nationalism.

Fall and spring. Mr. Nash.

52. PHILOSOPHY OF RELIGION (Philosophy 52) (3). This course can be taken for credit in religion only by students majoring in religion.

An inquiry into the philosophical foundations in religious experience. Problems of self and knowledge, faith and reason, the existence and nature of God, the character and meaning of religious commitment.

Fall and spring. Mr. Natanson.

63. LITERARY ASPECTS OF THE BIBLE (English 63) (3).

A study of the literary aspects of the Bible in English translation, with discussion of types and forms of literature, historical development of the Bible, the principal translations, and the influence of the Bible on English literature and on the language.

Spring. Mr. Howell.

80. INTRODUCTION TO OLD TESTAMENT LITERATURE (3).

A study of the beginnings of Hebrew religion in the Mosaic period, the rise of classical prophecy, and the emergence of Judaism.

Fall. Mr. Boyd.

81. INTRODUCTION TO NEW TESTAMENT LITERATURE (3).

A course designed to help the student gain an appreciation of both the newness of the Christian religion and its continuity with Israel's historic faith.

Fall and spring. Mr. Boyd.

85. ARCHAEOLOGY AND THE BIBLE (Classics 85) (3).

The results of the exploration and excavations in Palestine will be studied for the light they throw on Biblical history. Attention will be given to the art and civilization of the peoples of the Old Testament, particularly of the pre-exilic period.

Fall. Mr. Harland.

92. THE VARIETIES OF RELIGION IN AMERICAN LIFE AND CULTURE (3).

A study of Judaism, Roman Catholicism, and the chief forms of Protestantism; their respective beliefs, forms of worship, polity, and moral and social teachings.

93, 94. COURSES FOR HONORS (3 each semester). Required of all students reading for honors in religion.

Fall and spring.

95. THE RELATIONS BETWEEN SCIENCE AND RELIGION (3). Prerequisite, Religion 28, or 30, or special permission.

This course will be concerned with the mutual influence of natural science and religion upon each other in Western civilization from 1500 to the present day.

Fall. Mr. Nash.

97. THE CHRISTIAN INTERPRETATION OF HISTORY (3).

The course, beginning with a study of the nature of history and the development of historiography, goes on to consider the attempts made by thinkers like Nicholas Berdyaev, Reinhold Niebuhr, Christopher Dawson, and Arnold Toynbee to arrive at a Christian interpretation of the historical process, in so far as it sheds light on the contemporary crisis.

Mr. Nash.

99. THE INFLUENCE OF THE BIBLE ON WESTERN THOUGHT (3).

Prerequisite, Religion 28 or 30.

A historical study of the influence of the Bible on the thought and imagination of Western civilization as expressed in its philosophy, art, political theory, and literature.

Courses for Graduates and Advanced Undergraduates

103. CHRISTIANITY AND EDUCATION (3). Prerequisite, Religion 30, or 45, or special permission.

This course, which is primarily but not exclusively intended for students of education, will consist of a historical and comparative study of the relations between Christianity and education since the Reformation.

Fall. Mr. Nash.

113. ELEMENTARY HEBREW (Comparative Linguistics 113) (3).

The structure and basic vocabulary of the Hebrew language. A standard textbook will be supplemented by selected prose readings for the Old Testament.

121. THE BIBLICAL PERSPECTIVE (3). Prerequisite, Religion 28 or special permission.

A systematic consideration of the central themes of the Bible, such as revelation, sin, judgment, salvation, in relation to an understanding of man, society, ethical obligation, and history. The tension between the Biblical *Weltanschauung* and other world views will be considered in terms of various contemporary problems.

Spring. Mr. Boyd.

130. RELIGION AND CULTURE IN WESTERN CIVILIZATION (3). Prerequisites, Religion 28, or 80 together with History 41 and 42. Not to be taken by students who have received credit for Religion 30.

A study of the relations between the religions of the Western World (beginning with the dawn of civilization in the ancient Near East) and the different cultural expressions which these religions have taken.

Fall. Mr. Nash.

152. AUGUSTINE AND AQUINAS: THE DEVELOPMENT OF MEDIEVAL PHILOSOPHY (Philosophy 152) (3).

The medieval development of the Western philosophical tradition. Representative writings of Greek Gnosticism and the rise of the Latin Western Christian tradition. Clement of Alexandria, Tertullian, Augustine, Erigena, Anselm, Arabian and Jewish influences, Bonaventura, Thomas Aquinas, and William of Occam.

(1958-1959 and alternate years.) Spring. Mr. Saunders.

158. GREEK NEW TESTAMENT (Classics 158) (3). Prerequisite, Greek 22 or equivalent.

One or more of the Gospels will be read, with attention to the grammar, diction, and style of the New Testament writers.

Mr. Epps.

171. THE WORK OF THE DEUTERONOMISTS (3). Prerequisites, Religion 28 or Religion 80, or their equivalents.

A study of the work of the Deuteronomists, their philosophy of history, their continuity with the prophetic movement, and their contributions to the development of Biblical thought.

Fall. Mr. Boyd.

Course for Graduates

270. SOCIOLOGY OF RELIGION (Sociology 270) (3).

An analysis of tensions between the scientific, ethical and theological study of society; the role of religion in social change; the social origins of the denominations; the sociological significance of the Reformation; "sect" and "church" in sociological theory.

Spring. Mr. Nash.

DEPARTMENT OF ROMANCE LANGUAGES

Professors: S. A. STOUDEMIRE, W. M. DEY,¹ S. E. LEAVITT, U. T. HOLMES, JR., N. B.

ADAMS, H. R. HUSE, J. C. LYONS, *Secretary*, W. L. WILEY, H. GIDUZ,² R. W.

LINKER, A. G. ENGSTROM, J. HARDRÉ, J. E. KELLER

Associate Professors: F. M. DUFFEY, W. A. MCKNIGHT, K. L. SELIG³

Assistant Professors: R. L. FRAUTSCHI, L. A. SHARPE

Instructor: G. B. DANIEL

Part-time Instructors: S. W. BALDWIN, W. H. BISHOP, R. D. DEMENT, R. A. HALL,

N. F. HARBIN, D. A. HERNANDEZ, C. JAVENS, D. D. JOHNSON, H. L. KING, J. H. LA-

PRADE, P. A. LEE, D. H. LITTLEJOHN, A. G. LoRÉ, W. R. MANSON, W. E. MEEKS,

R. F. MIXON, W. J. MONAHAN, E. J. NEUGAARD, M. S. PINCUS, W. F. REAGAN,

W. H. SHUFORD, A. B. SMITH, JR., J. G. SPARKS, D. W. TUCKER, F. W. VOGLER,

Y. M. WASHBURN, H. A. WHARTENBY, J. L. YOUNG

Teaching Fellows: R. L. G. CONNELLY, W. L. KING, M. L. KOCHER

Graduate Assistants: MARY J. SMITH, MARIAN M. WALTER

FRENCH

Students interested in having a major in French will please consult Mr. J. C. Lyons, Departmental Adviser.

Those students who plan to teach in public high schools should read the statement on page 165.

The course requirements for the A.B. degree with a major in French are as follows: French 50, 51, 52, 53, 71, 72, 120, 145. This program may be varied according to the student's special needs and preparation.

1. Kenan Professor, Emeritus.

2. Professor, Emeritus.

3. Absent on leave, 1958-1959.

Courses for Undergraduates

1-2. ELEMENTARY FRENCH (6).

Three hours a week, through two semesters. Staff.

NOTE: No student is permitted to take French 1, 2, 3, or 4 and Spanish 1, 2, 3, or 4 at the same time.

Attention is called to French 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

3-4. INTERMEDIATE FRENCH⁴ (6).

Three hours a week, through two semesters. Staff.

14, 15. BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.

Three hours a week, fall and spring. Mr. Hardré.

21. ADVANCED FRENCH (3). Sophomore elective.

Masterpieces of French literature.

Any semester. Messrs. Lyons, Wiley, Linker, Engstrom, Hardré, and Frautschi.

22. ADVANCED FRENCH (3). Sophomore elective.

Contemporary French literature.

Any semester. Messrs. Lyons and Wiley.

50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (3). Prerequisite, intermediate French.

Fall. Messrs. Hardré and Frautschi.

51. FRENCH CONVERSATION AND COMPOSITION (3).

Any semester. Messrs. Lyons and Hardré.

51. 52. FRENCH CIVILIZATION I (CONVERSATION) (3). Prerequisite, French

Spring. Messrs. Lyons and Hardré.

52. 53. FRENCH CIVILIZATION II (CONVERSATION) (3). Prerequisite, French

French Revolution to the present.

Fall. Mr. Hardré.

71. SURVEY OF FRENCH LITERATURE I (3). Prerequisite, French 21.

Open to juniors and seniors.

Fall. Messrs. Lyons, Wiley, and Engstrom.

72. SURVEY OF FRENCH LITERATURE II (3).

This course is a continuation of French 71. Open to juniors and seniors.

Spring. Messrs. Lyons, Wiley, and Engstrom.

83. MATERIALS AND METHODS IN HIGH SCHOOL FRENCH (Education 83f) (3).

Spring. Mr. ————.

84. DIRECTED TEACHING OF HIGH SCHOOL FRENCH (Education 84f) (3).

Any semester. Laboratory fee, \$20.00. Mr. ————.

97. HONORS COURSE (3).

Required of all students reading for honors in French.

4. Either of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

Courses for Graduates and Advanced Undergraduates

115. FRENCH LYRIC POETRY (3). Prerequisites, French 71, 72.
Spring. Mr. Huse.
120. FRENCH DRAMA AND POETRY OF THE TWENTIETH CENTURY (3). Prerequisites, French 71, 72.
(1959-1960 and alternate years.) *Fall.* Mr. Hardré.
123. THE CONTEMPORARY NOVEL IN FRANCE (3). Prerequisites, French 71, 72.
(1958-1959 and alternate years.) *Fall.* Mr. Hardré.
126. HISTORY OF THE FRENCH LANGUAGE (3). Prerequisites, French 71, 72.
Spring. Mr. Linker.
131. THE FRENCH DRAMA PRIOR TO 1700 (3). Prerequisites, French 71, 72.
Fall. Mr. Wiley.
132. THE FRENCH DRAMA SINCE 1700 (3). Prerequisites, French 71, 72.
Spring. Mr. Wiley.
145. FRENCH PHONETICS (3). Prerequisites, French 71, 72.
Fall. Mr. Wiley.
171. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY I (3). Prerequisites, French 71, 72.
Fall. Mr. Lyons.
172. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY II (3). Prerequisites, French 71, 72.
Spring. Mr. Lyons.
181. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (3). Prerequisites, French 71, 72.
Fall. Mr. Huse.
191. FRENCH ROMANTICISM (3). Prerequisites, French 71, 72.
Fall. Mr. Engstrom.
192. FRENCH LITERATURE SINCE 1850 (3). Prerequisites, French 71, 72.
Spring. Mr. Engstrom.
- CELTIC 105. OLD IRISH (3).
Spring. Mr. Holmes.
- CELTIC 106. OLD WELSH (3).
On demand. Mr. Holmes.

Courses for Graduates

201. MATERIALS AND METHODS OF RESEARCH (1).
Spring. Mr. Holmes.
211. LITERARY CRITICISM IN FRANCE: THE CLASSICAL PERIOD (3).
(1959-1960 and alternate years.) *Spring.* Mr. Wiley.
212. LITERARY CRITICISM IN FRANCE: THE MODERN PERIOD (3).
(1958-1959 and alternate years.) *Spring.* Mr. Engstrom.
220. VULGAR LATIN (3).
(1958-1959 and alternate years.) *Fall.* Mr. Holmes.

221-222. OLD FRENCH (6).

Fall and spring. Mr. Holmes.

225. PROVENÇAL (3).

(1959-1960 and alternate years.) *Spring.* Mr. Linker.

248. FRENCH LITERATURE OF THE FOURTEENTH AND FIFTEENTH CENTURIES (3). Prerequisite, French 221 or 265.

(1959-1960 and alternate years.) *Fall.* Mr. Linker.

265, 266. FRENCH LITERATURE OF THE RENAISSANCE (3 each).

(1958-1959 and alternate years.) *Fall and spring.* Mr. Lyons.

324. ROMANCE PALEOGRAPHY (3).

(1958-1959 and alternate years.) *Fall.* Mr. Linker.

330. SEMINAR (3 or more).

Member of the graduate faculty.

331. HISTORY OF FRENCH LITERATURE PRIOR TO 1300 (3). French 221 is desired, though not prerequisite.

(1959-1960 and alternate years.) *Fall.* Mr. Holmes.

340. SPECIAL READINGS (3 or more).

Member of the graduate faculty.

370. SEMINAR IN MINOR ROMANCE TONGUES (3).

(1959-1960 and alternate years.) *Spring.* Mr. Holmes.

375. THESIS (3 or more).

Member of the graduate faculty.

395. RESEARCH (3).

Research in a special field under the direction of a member of the department.

ITALIAN

Courses for Undergraduates

51. ELEMENTARY COURSE (3). Prerequisite, intermediate French or Spanish.

Fall. Mr. Lyons.

52. MODERN ITALIAN LITERATURE (3). Prerequisite, Italian 51.

Spring. Mr. Lyons.

Courses for Graduates and Advanced Undergraduates

131. DANTE I (3). Prerequisites, Italian 51, 52.

Fall. Mr. Huse.

132. DANTE II (3). Prerequisite, Italian 131.

Spring. Mr. Huse.

156. DANTE IN ENGLISH TRANSLATION (Comparative Literature 156) (3).

Spring. Mr. Huse.

161. ITALIAN LITERATURE OF THE RENAISSANCE (3). Prerequisites, Italian 51, 52.

(1959-1960 and alternate years.) *Fall.* Mr. Huse.

181. THE ITALIAN SETTECENTO (3). Prerequisites, Italian 51, 52.

(1959-1960 and alternate years.) *Spring.* Mr. Lyons.

Courses for Graduates

221. OLD ITALIAN (3).

(1958-1959 and alternate years.) *Fall.* Mr. Holmes.

245. THE ITALIAN TRECENTO: PETRARCH AND BOCCACCIO (3). Pre-requisites, Italian 51, 52.

(1958-1959 and alternate years.) *Spring.* Mr. Lyons.

PORTUGUESE

Courses for Undergraduates

51. ELEMENTARY PORTUGUESE (3). Prerequisite, intermediate French or Spanish.

Fall. Mr. Sharpe.

52. READING IN BRAZILIAN LITERATURE (3). Prerequisite, Portuguese 51.

Spring. Mr. Sharpe.

Courses for Graduates and Advanced Undergraduates

101. MASTERPIECES OF PORTUGUESE LITERATURE (3). Prerequisite, Portuguese 52 or equivalent.

(1958-1959 and alternate years.) *Fall.* Mr. Sharpe.

102. MODERN BRAZILIAN LITERATURE (3). Prerequisite, Portuguese 52 or equivalent.

(1959-1960 and alternate years.) *Fall.* Mr. Sharpe.

Course for Graduates

221. OLD PORTUGUESE (3).

(1958-1959 and alternate years.) *One semester.* Mr. Holmes.

SPANISH

Students interested in having a major in Spanish will please consult Mr. S. A. Stoudemire, Departmental Adviser.

Those students who plan to teach in public high schools should read the statement on page 165.

The course requirements for the A.B. degree with a major in Spanish are as follows: Spanish 50, 51, 52, 53, 71, 72, 113, 145. This program may be varied according to the student's special needs and preparation.

Courses for Undergraduates

1-2. ELEMENTARY SPANISH (6).

Three hours a week, through two semesters. Mr. McKnight and staff.

NOTE: No student is permitted to take Spanish 1, 2, 3, or 4, and French 1, 2, 3, or 4 at the same time.

Attention is called to Spanish 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

3-4. INTERMEDIATE SPANISH⁵ (6).

Three hours a week, through two semesters. Mr. McKnight and staff.

14, 15. BEGINNING COURSE FOR ADVANCED STUDENTS (3 each). Elective.

Three hours a week, fall and spring. Messrs. Stoudemire and McKnight.

21. ADVANCED SPANISH (3). Sophomore elective.

Masterpieces of Spanish literature.

Any semester. Messrs. Stoudemire, Adams, Keller, McKnight, Duffey, and Sharpe.

22. ADVANCED SPANISH (3). Sophomore elective.

Contemporary Hispanic literature.

Any semester. Messrs. Stoudemire, Adams, and McKnight.

50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (3).

Prerequisite, intermediate Spanish.

Fall. Messrs. Stoudemire and McKnight.

51. SPANISH CONVERSATION AND COMPOSITION (3).

Any semester. Mr. Duffey.

52. SPANISH CIVILIZATION (CONVERSATION) (3). Prerequisite, Spanish 51.

Spring. Mr. Duffey.

53. LATIN AMERICAN CIVILIZATION (CONVERSATION) (3). Prerequisite, Spanish 51.

A survey in Spanish of the history and culture of Latin America.

Fall. Mr. Duffey.

71. SURVEY OF SPANISH LITERATURE TO 1700 (3). Prerequisite, Spanish

21. Open to juniors and seniors.

Fall. Messrs. Stoudemire and McKnight.

72. SURVEY OF SPANISH LITERATURE SINCE 1700 (3).

This course is a continuation of Spanish 71. Open to juniors and seniors.

Spring. Messrs. Stoudemire and McKnight.

83s) 83. MATERIALS AND METHODS IN HIGH SCHOOL SPANISH (Education 83s) (3).

Spring. Mr. McKnight.

84. DIRECTED TEACHING OF HIGH SCHOOL SPANISH (Education 84s) (3).

Any semester. Laboratory fee, \$20.00. Mr. -----.

97. HONORS COURSE (3).

Required of all students reading for honors in Spanish.

Courses for Graduates and Advanced Undergraduates

109. EARLY SPANISH PROSE FICTION (3). Prerequisites, Spanish 71, 72. (1958-1959 and alternate years.) *Fall.* Mr. Adams.

110. THE SPANISH NOVEL, 1605-1898 (3). Prerequisites, Spanish 71, 72. (1958-1959 and alternate years.) *Spring.* Mr. Adams.

111. MODERN SPANISH NOVELISTS (3). Prerequisites, Spanish 71, 72. (1959-1960 and alternate years.) *Fall.* Mr. Adams.

⁵ Either of these courses may be taken for elective credit if the language requirement has already been satisfied.

112. THE NOVEL IN SPANISH AMERICA (3). Prerequisites, Spanish 71, 72. (1959-1960 and alternate years.) *Spring*. Messrs. Duffey and Sharpe.
113. SPANISH AMERICAN LITERATURE (3). Prerequisites, Spanish 71, 72. *Spring*. Messrs. Duffey and Sharpe.
117. CERVANTES (3). Prerequisites, Spanish 71, 72. *Spring*. Mr. Stoudemire.
131. LOPE DE VEGA AND HIS CONTEMPORARIES (3). Prerequisites, Spanish 71, 72. *Fall*. Mr. Leavitt.
132. CALDERON AND HIS CONTEMPORARIES (3). Prerequisites, Spanish 71, 72. *Spring*. Mr. Leavitt.
134. SPANISH DRAMA OF THE NINETEENTH CENTURY (3). Prerequisites, Spanish 71, 72. (1958-1959 and alternate years.) *Spring*. Mr. Stoudemire.
135. MODERN SPANISH DRAMA (3). Prerequisites, Spanish 71, 72. (1959-1960 and alternate years.) *Spring*. Messrs. Stoudemire and McKnight.
145. SPANISH PHONETICS (3). Prerequisites, Spanish 71, 72. *Fall*. Mr. Duffey.

Courses for Graduates

201. BIBLIOGRAPHY AND METHODOLOGY (3). Required of all candidates for the Ph.D. degree. *Fall*. Mr. Stoudemire.
209. NON-FICTIONAL PROSE OF THE SIGLO DE ORO (3). A study of the critical, historical, scientific, and philosophical writings of the sixteenth and seventeenth centuries. (1959-1960 and alternate years.) *Spring*. Mr. Stoudemire.
215. EARLY LYRIC POETRY (3). Prerequisites, Spanish 71, 72. (1959-1960 and alternate years.) *Fall*. Mr. Adams.
216. MODERN LYRIC POETRY (3). Prerequisites, Spanish 71, 72. (1959-1960 and alternate years.) *Spring*. Mr. Adams.
- 221-222. OLD SPANISH (6). *Fall and spring*. Mr. Keller.
241. SPANISH AMERICAN BIBLIOGRAPHY (3). (1958-1959 and alternate years.) *Spring*. Mr. Sharpe.
291. EARLY SPANISH LITERATURE (3). Prerequisite, Spanish 221-222. (1958-1959 and alternate years.) *Spring*. Mr. Keller.
330. SEMINAR (3 or more). Member of the graduate faculty.
340. SPECIAL READINGS (3 or more). Member of the graduate faculty.
375. THESIS (3 or more).
393. SPANISH ROMANTICISM (3). Seminar course. (1959-1960 and alternate years.) *Spring*. Mr. Adams.
395. RESEARCH (3). Research in a special field under the direction of a member of the department.

RUSSIAN

(See Germanic Languages)

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professors: E. W. NOLAND, H. D. MEYER, S. H. HOBBS, JR., R. B. VANCE, G. B. JOHNSON, KATHARINE JOCHER, W. B. SANDERS, J. P. GILLIN, J. J. HONIGMANN, D. O. PRICE, J. W. THIBAUT, HARRIET HERRING, G. L. SIMPSON, JR., H. L. SMITH, C. E. BOWERMAN

Assistant Professors: J. L. COE, JOHN GULICK, ERNEST Q. CAMPBELL, RICHARD L. SIMPSON

Part-time Assistant Professor: GEORGE R. HOLCOMB (Assistant Professor of Anatomy)

Instructors: H. D. SESSOMS, ANN CAROL MANEY

Part-time Instructor: WILLIAM S. POLLITZER (Instructor in Anatomy)

Teaching Fellow: MARK C. THELIN

Graduate Assistants: ANGELL BEZA, DAVID GOVER, WILLIAM GULLEY, RICHARD LAMMANA, PAUL WEHR

The courses in the Department of Sociology and Anthropology reflect a two-fold objective with the inseparable tasks of seeking to understand man, society and social behavior, and to prepare the student for participation in social research. For the undergraduate, courses in sociology provide pre-professional training in the social sciences and professions, as well as mature understanding of social life as the basis for fuller citizenship.

Undergraduate major: Sociology 51 and Anthropology 41, preferably taken in the sophomore year, are required of all majors and are prerequisite to other courses in the department except where otherwise indicated. Majors¹ will plan their courses, with the help of an adviser, according to the following schedule:

Sociology: Sociology 56, five other courses in sociology, seven allied courses, seven non-divisional courses. A student majoring in sociology may take as many as three courses in anthropology in the allied field.

Anthropology: Six courses in anthropology, Sociology 56 and six other allied courses, seven non-divisional courses. A student majoring in anthropology may take as many as three sociology courses in the allied field.

Sociology-Anthropology (split major): three sociology courses (including Sociology 56), three anthropology courses, seven allied courses, seven non-divisional courses.

Recreational Leadership: Sociology 56, 75; four courses from among 173, 176, 177, 178, 179; one additional course in sociology.

Through proper selection of courses in the major, allied, and non-divisional fields:

Sociology majors may prepare for positions with the federal, state, and local governments, for some types of personnel work, for social work as case work trainees, for recreation leadership,² and in other

1. Sociology 52 is not creditable within the six-course major in sociology-anthropology. Transfer majors will usually lack Anthropology 41 which is creditable in the allied field when taken by sociology majors; likewise Sociology 51 is allied for anthropology majors.

2. Other departments and schools contributing to the specialization in recreation leadership are physical education, dramatic art, art, music, city and regional planning, social work, education, political science, economics, and business administration.

allied areas; or for graduate work in sociology, rural sociology, social psychology, social work, personnel, and other specialties.

Anthropology majors may prepare for positions as museum assistants, as research assistants in cultural anthropology and prehistoric archaeology, as government employees, especially in technical assistance programs, and for other lines of endeavor, as well as for graduate work in anthropology.

The Sociology-Anthropology split-major prepares a student for public school teaching of social studies if all requirements for a teacher's certificate are completed. A student who wishes to qualify for a position in the public schools should consult the School of Education.

Electives: Students desiring one or more undergraduate elective courses in the department may take Sociology 51, 52, 53, 62, or Anthropology 41. Sociology 51 or its equivalent is prerequisite for all other courses in sociology except where otherwise indicated. Anthropology 41 or its equivalent is prerequisite for all other courses in anthropology except where otherwise indicated.

Graduate Degrees: The A.M. and Ph.D. degrees are offered in sociology and in anthropology. (The rationales and requirements for the A.M. and Ph.D. degrees are explained in the Graduate School Catalogue.) It is the purpose of the graduate program to provide the best possible professional training for sociologists, anthropologists, and, in conjunction with the Department of Psychology, for social psychologists. Candidates for the A.M. or Ph.D. degree in sociology or anthropology may minor in rural sociology, any of the other social sciences, or in the related fields of statistics, planning, public health, and social work. A minor split between two fields is possible for the Ph.D. degree with special permission of the Graduate School.

The A.M. degree in rural sociology is offered and candidates for this degree may minor in general sociology, anthropology, or any of the other social sciences.

Two graduate degrees affording emphasis on recreation leadership are offered: The Master of Arts degree in sociology with concentration in recreation leadership and the Master of Science degree in Recreation Administration (see further description at end of this section under "Recreation Leadership").

Students in other departments may take a minor for the A.M. or Ph.D. degrees in general sociology, rural sociology, or anthropology if appropriate prerequisite courses have been completed. Minor courses should be selected through consultation with the chairman of the department.

Courses in rural sociology and anthropology are grouped separately following the courses in general sociology. Anthropology courses

carry the designation "Anthropology" on registration forms while courses in rural sociology and recreation leadership carry the designation "Sociology" on registration forms.

GENERAL SOCIOLOGY

Unless otherwise specified, Sociology 51 is prerequisite for sociology courses above 100 and Anthropology 41 is prerequisite for anthropology courses above 100.

Courses for Undergraduates

51. INTRODUCTION TO SOCIOLOGY (3).

The scientific study of principles and comparisons in society and culture as these relate to social groups, organization, processes, institutions, stratification, change, trends, and control.

Fall and spring. Materials fee, \$1.00. Staff.

52. SOCIAL PROBLEMS (3). No prerequisite. Elective for students not majoring in this department.

Introductory course in social problems with primary emphasis on both the positive and pathological features of society.

Fall and spring. Materials fee, \$1.00. Staff.

56. HOW TO STUDY SOCIETY (3). Prerequisites, Sociology 51 and Anthropology 41.

An introduction to the methods of studying society with special emphasis on the methods discussed in actual research reports. Required of majors in both sociology and anthropology.

Fall and spring. Mr. Price.

60. THE FIELD OF SOCIAL WORK (3). For sociology majors; others by special permission.

An orientation course based on the description and analysis of the historical development of social work and the operation in contemporary society of the many specialized social work services.

Fall. Messrs. Fink and Hunter.

62. MARRIAGE AND THE FAMILY (3). Open to General College students, juniors and seniors.

Analysis of courtship, marriage, and family relationships.

Fall and spring. Mr. Bowerman.

65. THE PUBLIC SOCIAL SERVICES (3). For sociology majors, others by permission.

An analysis of the social services which are offered under public auspices through city, county, state, and federal agencies.

Spring. Messrs. Fink and Keith-Lucas.

70. INDUSTRIAL SOCIOLOGY (3).

The place of sociology in the study of industrial relations. The application of social scientific principles to the analysis of social relationships in business, with special emphasis on industrial firms.

Fall. Laboratory fee, \$1.00. Mr. Noland.

75. COMMUNITY ORGANIZATION (3).

Processes, integration, and change in the community. Analysis and comparison of rural and urban communities with respect to structural features, communication processes, and basic institutions. Changing role of the local community in the total society.

Fall. Laboratory fee, \$1.00. Mr. Richard Simpson.

95, 96. HONORS READING COURSES (3 each). Prerequisite, for Honors Programs, approval of the chairman of the department.

Special reading for honors in a selected field under the direction of a member of the department. A student may take only two courses in the Honors Program.

Fall and spring. Staff.

Courses for Graduates and Advanced Undergraduates

107. FOUNDATIONS OF THE SOCIAL SCIENCES (Philosophy 107) (3). Prerequisites, two courses in philosophy, psychology, or sociology. (See Philosophy 107 for description.)

Spring. Mr. Natanson.

122. CULTURAL ANTHROPOLOGY (Anthropology 122) (Folklore 122) (3). (See Anthropology 122 for description.)

Fall. Materials fee, \$1.00. Mr. Johnson.

125. THE NEGRO (3).

A study of the Negro community and its institutions, status of the Negro in American society, problems of race relations, and the process of integration.

Spring. Mr. Johnson.

128. FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (Folklore 128) (3).

(See Anthropology 128 for description.)

(1958-1959 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gillin.

133. INTRODUCTION TO SOCIAL PSYCHOLOGY (Psychology 133) (3). (See Psychology 133 for description.)

Fall and spring. Messrs. McCurdy, Thibaut, Fillenbaum, and Strickland.

136. COMPARATIVE SOCIAL ORGANIZATION IN SELECTED CULTURES (Anthropology 136) (3).

(See Anthropology 136 for description.)

(1958-1959 and alternate years.) *Spring.* Mr. Gulick.

152. HISTORY OF SOCIAL THOUGHT (3). Prerequisite, introductory course in one of the social sciences or philosophy.

Emphasis on historic social ideas of Western culture considered against a background of general cultural analysis in terms of systematic theory.

Fall and spring. Messrs. Campbell and Vance.

153. SOCIAL STRUCTURE (3).

Analysis of social structure and stratification in terms of class, status, prestige, rank, and function. Attention is given to the social role of the elite, bureaucracies, and professional and middle classes.

Fall. Mr. Vance.

154. CONTEMPORARY SOCIETY (3). Prerequisites, three courses in sociology.

The study of the cultural evolution of society from the viewpoint of the folk regional development: folkways, stateways, geographic factors, regions, states, modern technology and change, the application to contemporary American society.

Spring. Mr. George Simpson.

161. SOCIOLOGY OF THE FAMILY (3).

Analysis of the family institution as a background for the study of family interaction: socialization and the parent-child relationship, courtship and marriage interaction, family crises and problems.

(1959-1960 and alternate years.) *Spring*. Mr. Bowerman.

162. DYNAMICS OF FAMILY DEVELOPMENT (3). Prerequisites, Sociology 51 and general psychology.

Analysis of the natural history of families, how they form, function, and grow to maturity. Focus on the developmental growth of children and parents in interaction in seven stages of the family life cycle.

(1958-1959 and alternate years.) *Spring*. Mr. Bowerman.

165. COMMUNICATION AND OPINION (Journalism 165) (Psychology 165) (3).

(See Journalism 165 for description.)

Fall and spring. Mr. Danielson.

168. THE CITY (3).

The city as a social phenomenon in various cultures. Analysis of urban trends, characteristics, and functions of cities with reference to ecology and social organization. Sociological elements in housing, urban planning, and guided development.

Spring. Materials fee, \$1.00. Mr. Campbell.

169. THE INDUSTRIAL COMMUNITY (3).

Development of the industrial community since the Industrial Revolution; effect of changing conditions and differences in surrounding society; paternalism, labor laws, economic and labor problems as they affect the industrial community.

Spring. Miss Herring.

173. COMMUNITY REACTION (3).

Foundations of organized recreation; backgrounds and theories; objectives and principles; social and economic factors; public, private, and commercial interests; recreation and the social institutions.

Fall. Mr. Meyer.

176. PROGRAM PLANNING FOR COMMUNITY RECREATION (3).

The fields of activity; types, correlations, and program activities; principles and methods of program planning; schedules according to time basis, special activities and feature events.

Spring. Messrs. Meyer and Sessoms.

177. ADMINISTRATION OF RECREATION (3).

Analysis of recreation from the standpoint of organization; administration; finances; budget; reports and records; leadership and training; legislation; publicity and public relations; coordination of community resources; program operation.

Spring. Mr. Meyer.

178. PERSONNEL PRACTICES IN ORGANIZED RECREATION (3).

A study of the field of recreation leadership; principles of leadership; status of profession; job analysis; staff organization and employment practices; professional education and training; role of volunteer; principles of supervision.

Fall. Messrs. Meyer and Sessoms.

179. RECREATION AREAS, FACILITIES AND SOCIAL PROGRAMS (3).

First half of course is study of recreation areas and facilities: functional planning; design and layout; usage and maintenance; standards and evaluation. Latter part is devoted to organizing and directing of social programs.

Spring. Messrs. Meyer and Sessoms.

180. STATE AND REGIONAL PROBLEMS AND PLANNING (3).

A survey of the field of state and regional problems and planning with special reference to the basic theory of regionalism. A brief survey of recent developments of United States and world regions.

(1958-1959 and alternate years.) *Fall*. Mr. George Simpson.

181. REGIONAL SOCIOLOGY OF THE SOUTH (3). No prerequisite.

A sociological analysis of the southern region of the United States. Emphasis on facts, factors, and policies pertaining to geography, population, and culture; resources and waste; social institutions and planning.

Spring. *Materials fee, \$1.00*. Mr. George Simpson.

186. POPULATION (3).

A study of problems of quality and quantity of population including theories of population increase and problems of composition, distribution, differential fertility, population pressure, and internal migration.

Fall. *Materials fee, \$1.00*. Mr. Vance.

190. DIAGNOSIS OF JUVENILE DELINQUENCY (3).

After a brief historical background this course traces the development of case study and diagnosis of juvenile delinquency through various approaches.

Fall. *Materials fee, \$1.00*. Mr. Sanders.

191. SOCIAL STATISTICS (3). Prerequisites, three courses in sociology. Carries no credit for A.M. minor in sociology.

Elementary descriptive statistics and basic principles of statistical inference including estimation and tests of hypotheses. Required of all candidates for graduate degrees in sociology.

Three lecture hours a week plus laboratory, fall and spring. *Laboratory fee, \$2.00*. Messrs. Price, Bowerman, and Noland.

192. CRIMINOLOGY (3).

The principles of criminology and penology with emphasis on psycho-sociological factors; study of historical and contemporary theory and practice.

Fall. Mr. Sanders.

193. SOCIAL PATHOLOGY (3). Not open to students credited with Sociology 52.

Poverty, relief, delinquency, vagrancy, prostitution, alcoholism, crime, mental defects, and other pathological conditions. Analysis of therapeutic measures. Field trips to county and state institutions.

Spring. Mr. Sanders.

196. TECHNIQUES OF QUANTITATIVE FIELD SURVEYS (3). Prerequisites, three courses in sociology.

This course includes planning a field survey, construction of questionnaire and schedule, instructions for enumerators, interviewing, supervision of enumeration, and editing schedules.

(1959-1960 and alternate years.) *Spring*. Mr. Price.

197. POPULATION STATISTICS (3).

Training and techniques for quantitative research with population data; composition characteristics, making of population estimates, computation and standardization of birth and death rates, construction and application of life tables, measurement of migration.

(1958-1959 and alternate years.) *Fall*. *Laboratory fee, \$2.00*. Mr. Price.

198. TREATMENT OF JUVENILE DELINQUENCY (3).

Emphasis on the juvenile court and various means of prevention and treatment of juvenile delinquency. Field trips.

Spring. *Materials fee, \$1.00*. Mr. Sanders.

199. MODERN PENOLOGY (3). Prerequisite, Sociology 192 or equivalent.

Specialized study of trends, legislation, experiments, and accomplishments in correctional programs. Such topics as parole, classification, and personnel will be emphasized.

(1958-1959 and alternate years.) *Spring*. Mr. Sanders.

Courses for Graduates

208. METHODS IN SOCIAL RESEARCH (3).

An overview of the research process, the application of scientific method to social data: Formulation of the research problem, choice of research designs, methods of data collection, analysis and interpretation. Students obtain acquaintance with steps of the research process by carrying a project through the pretest stage. Readings and exercises supplemented by presentation of recent and current field studies.

Fall. Materials fee, \$1.00. Mr. Bowerman and Miss Jocher.

210. FOLK SOCIOLOGY (Folklore 210) (3).

Folk sociology as a subject field for the historical study of total human society and the empirical study of group behavior.

Fall. Mr. George Simpson.

212. AMERICAN SOCIOLOGISTS (3).

A general treatise on the rise and development of American sociology and a survey of the work and personalities of American sociologists projected on the background of social theory and research.

Spring. Mr. George Simpson.

218. HUMAN ECOLOGY (SEMINAR) (3).

Consideration of theory and research emerging around the concept of human ecology. A review of the background of human ecology is followed by readings, reports, and research on its contemporary development.

(1958-1959 and alternate years.) *Spring*. Materials fee, \$1.00. Mr. Vance.

220. THEORIES OF CULTURE (Anthropology 220) (3).

(See Anthropology 220 for description.)

(1959-1960 and alternate years.) *Spring*. Materials fee, \$1.00. Mr. Gillin.

221. FIELD METHODS IN CULTURAL ANTHROPOLOGY (Anthropology 221) (3).

(See Anthropology 221 for description.)

(1958-1959 and alternate years.) *Spring*. Mr. Honigmann.

227. THEORIES OF PERSONALITY (Psychology 227) (3).

(See Psychology 227 for description.)

Fall. Messrs. Baughman and McCurdy.

228. ADVANCED SOCIAL PSYCHOLOGY (Psychology 228) (3).

(See Psychology 228 for description.)

Spring. Mr. Thibaut.

229. CULTURE AND PERSONALITY (Anthropology 229) (3).

(See Anthropology 229 for description.)

(1959-1960 and alternate years.) *Spring*. Materials fee, \$1.00. Mr. Honigmann.

230. RACE AND CULTURE CONTACTS (Anthropology 230) (Folklore 230) (3).

(See Anthropology 230 for description.)

Spring. Mr. Johnson.

233. METHODS OF SOCIAL PSYCHOLOGY (Psychology 233) (3).

(See Psychology 233 for description.)

Spring. Messrs. Thibaut and Back.

235. MEASUREMENT OF ATTITUDES (Psychology 235) (3).

(See Psychology 235 for description.)

(1958-1959 and as demand warrants.) *Fall.* Mr. Upshaw.

239. ADVANCED INDUSTRIAL SOCIOLOGY (3).

Social theory and productive systems; the meaning and organization of work; the dynamics of getting work done; management of work organizations; the social structure of trade unionism; work organizations and society.

Fall. Mr. Noland.

240. SOCIAL RESEARCH IN INDUSTRIAL RELATIONS (3). Prerequisite, Sociology 70 or equivalent.

Systematic analysis of theories and procedures of the behavioral sciences as they relate to research in labor and industrial relations. Critical appraisal of recent and current research in human relations in business. Research project design.

(1959-1960 and alternate years.) *Spring.* Mr. Noland.

245. BEHAVIOR IN LARGE GROUP ORGANIZATIONS (3). Prerequisite, permission of the instructor.

Processes and forms of social behavior and personality in such administrative organizations as military units, government agencies, business firms, industry, and universities. Explanation and synthesis of research methods, findings, theory, and application.

(Not offered in 1959-1960.) *Spring.* Mr. Noland.

253. ADVANCED SOCIAL STATISTICS (3). Prerequisite, Sociology 191.

Multiple and partial correlation, analysis of variance and covariance, sampling, and other topics applicable to specific research projects of the student.

Fall. Laboratory fee, \$2.00. Mr. Price.

262. EUROPEAN SOCIOLOGICAL THEORY (3).

The role of theory in sociological research. Analysis and comparison of major methodological and theoretical orientations in sociology. Development from European backgrounds of current theories of social differentiation, social integration, social change, structural-functional analysis, and social systems analysis. Required of all candidates for the Ph.D. degree in sociology.

Fall. Mr. Richard Simpson.

265. THE SOCIOLOGY OF HEALTH AND THE HEALTH PROFESSIONS (3).

Reviews the work done in the area of convergent interests of the medical and social sciences with emphasis on further research.

Spring. Mr. Smith.

270. SOCIOLOGY OF RELIGION (Religion 270) (3).

(See Religion 270 for description.)

(1958-1959 and alternate years.) *Spring.* Mr. Nash.

271. PROBLEMS OF ORGANIZED RECREATION (3).

To promote insight into some problems confronting organized recreation in community life; interpret and analyze the problems, determine specific needs; plan for adjusting the problems.

Fall. Mr. Meyer.

274. ADVANCED COMMUNITY SOCIOLOGY (3).

Analysis and evaluation of theory and research in the sociology of the community. Lectures supplemented by student reports on selected topics.

Spring. Laboratory fee, \$1.00. Mr. Richard Simpson.

301, 302. READING AND RESEARCH (3 each semester). Registration by permission of the instructor.

Advanced reading, library research or field research on a selected topic under guidance of the instructor.

Fall and spring. Staff.

315, 316. READING AND RESEARCH IN METHODOLOGY (3 each semester). Registration by permission of the instructor.

Special work on selected problems of research methodology.

Fall and spring. Staff.

321, 322. FIELD RESEARCH (3 each semester).

Fall and spring. Staff.

326, 327. SEMINAR IN SELECTED TOPICS (3 each semester).

Fall and spring. Staff.

328. SEMINAR IN SOCIAL PSYCHOLOGY (Psychology 328) (3).

(See Psychology 328 for description.)

Either semester, as announced. Staff.

333. SEMINAR IN MARRIAGE AND THE FAMILY (3).

(1959-1960 and alternate years.) *Fall.* Mr. Bowerman.

334. CRITIQUE OF RESEARCH IN MARRIAGE AND THE FAMILY (3).

This seminar reviews the basic conceptual frameworks used in family research in the past; identifies changing emphasis in family study; and evaluates current studies in the major fields of family research.

(1958-1959 and alternate years.) Mr. Bowerman.

340. SEMINAR IN MEDIA ANALYSIS (Psychology 340) (Journalism 340) (3).

(See Journalism 340 for description.)

Spring. Mr. Danielson.

341. MASTER'S THESIS (3).

Individual research in a selected field under the direction of a member of the department.

Fall and spring. Staff.

342. DOCTORAL DISSERTATION (3).

Individual research in a selected field under the direction of a member of the department.

Fall and spring. Staff.

RURAL SOCIOLOGY³

Courses for Undergraduates

53. RURAL SOCIAL ECONOMICS (3). No prerequisite.

A general introductory course in the principles and problems of rural social economics, with attention to the relationship between economic and social conditions, especially in the South.

Fall. Mr. Hobbs.

3. Courses in rural sociology carry regular designation "Sociology" on registration forms. Sociology 174, 181, and 218 may be counted as rural sociology courses in a graduate program. Additional graduate courses in rural sociology are available at North Carolina State College in Raleigh.

Courses for Graduates and Advanced Undergraduates

101. NORTH CAROLINA: ECONOMIC AND SOCIAL (3). No prerequisite.

This course is designed to familiarize the student with North Carolina: population, agriculture, resources, social life, economic development, industry, wealth, taxation, education, public welfare.

Fall and spring. Mr. Hobbs.

102. RURAL SOCIOLOGY (3). No prerequisite.

Topics include rural society and rural sociology, socio-economic aspects of agriculture, conditions and movements of rural population, rural social institutions and agencies, bio-social conditions, socio-cultural conditions, rural-urban relations.

Fall. Mr. Hobbs.

103. HISTORY OF AGRICULTURAL AND RURAL INSTITUTIONS (3).

This course traces the development of agriculture from its earliest beginnings to the present: early development; Greece and Rome; later agriculture in Europe; American agricultural institutions.

(1958-1959 and alternate years.) *Spring.* Mr. Hobbs.

110. RURAL LAND PLANNING AND LAND ECONOMICS (3). Prerequisite or corequisite, general economics or Sociology 53.

A course covering the broad field of land economics, with special attention to utilization and conservation of farm and forest land resources in the United States.

(1959-1960 and alternate years.) *Spring.* Mr. Hobbs.

166. THE RURAL COMMUNITY (3).

The rural community as a sociological group, evolution of the rural community, village-community economy, social institutions, social organization, social control, sociological significance, the future of the rural community.

Spring. Mr. Hobbs.

Courses for Graduates

311, 312. READING AND RESEARCH IN RURAL SOCIOLOGY (3 each semester). Prerequisites, approved courses in general sociology and rural sociology and permission of the instructor.

Research, seminars, and field investigations in selected topics from the following: rural social problems; rural social surveys, research technique and field work; rural social statistics, interpretation and use; rural social engineering.

Fall and spring. Mr. Hobbs.

ANTHROPOLOGY⁴

Courses for Undergraduates

41. GENERAL ANTHROPOLOGY (3).

A basic introduction to man as a species and as a producer of customs and culture. The evolution of mankind, physical anthropology, modern varieties and races, and human capabilities. The fundamental culture developments of human history with a general study of the functioning principles of culture. Study of selected culture areas.

Fall and spring. Materials fee, \$1.00. Staff.

4. As indicated, certain courses in anthropology also carry credit in general sociology.

74. ARCHAEOLOGY OF NORTH AMERICA (3).

A study of the growth of American Indian cultures north of the Rio Grande as interpreted by archaeological research. Special emphasis on the prehistory of North Carolina and the eastern woodlands.

Fall. Laboratory fee, \$1.00. Mr. Coe.

79. RESEARCH METHODS IN ARCHAEOLOGY (3).

A study of the basic principles underlying archaeological study of prehistoric sites. Field trips and laboratory work.

Spring. Laboratory fee, \$3.00. Mr. Coe.

95, 96. HONORS READING COURSES (3 each semester). Prerequisite, for Honors Program, approval of the chairman of the department.

Special reading for honors in a selected field under the direction of a member of the department. A student may take only two courses in the Honors Program.

Fall and spring. Staff.

100. OLD WORLD PREHISTORY (3).

A course designed to provide anthropology majors and other students of comparable behavioral science sophistication with a basic background in the development of Man and Culture in the Old World.

Fall. Laboratory fee, \$1.00. Messrs. Johnson and Coe.

Courses for Graduates and Advanced Undergraduates

120. APPLIED ANTHROPOLOGY (INTERCULTURAL RELATIONS) (3).

No prerequisite required.

Case studies are used to understand human relations involving people with different ways of life. Topics treated include community development, health programs, cross-cultural political administration, and international communication.

(1958-1959 and alternate years.) *Fall. Mr. Honigmann.*

122. CULTURAL ANTHROPOLOGY (Sociology 122) (Folklore 122) (3).

A systematic survey of the customs and modes of life of mankind based on scientific explanation of the ways of culture.

Fall. Materials fee, \$1.00. Mr. Johnson.

123. ANTHROPOLOGY OF RELIGION (3).

Common elements of sacred and secular ritual in human society; their contribution to the strengthening of values and maintenance of social organization; how communities conceive the universe to be organized and cope with threat and uncertainty.

(1959-1960 and alternate years.) *Fall. Mr. Honigmann.*

126. RACES AND PEOPLES OF AFRICA (3).

Survey of the native peoples and cultures of Africa south of the Sahara.

Fall. Materials fee, \$1.00. Mr. Johnson.

127. NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (Folklore 127) (3).

Modern Mexico and Central America seen against the background of archaeology, physical anthropology, and aboriginal culture, including both the "high cultures" of the Aztec and Mayas and the tribal cultures of various regions; present day mixtures and syntheses in physical types, customs, and institutions.

(1959-1960 and alternate years.) *Spring. Materials fee, \$1.00. Mr. Gillin.*

128. FOLK CULTURES IN THE MODERN WORLD (Sociology 128) (Folklore 128) (3).

The folk culture is viewed as a way of life which stands midway between that of the "primitive" tribal native and that of the urbanized city-dweller.

(1958-1959 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gillin.

129. PEOPLES OF OCEANIA (3).

The development and nature of recent and existing cultures in Indonesia, native Australia, Melanesia, Micronesia and Polynesia. Emphasis on important theoretical and methodological issues which have arisen from Oceanic research.

(1959-1960 and alternate years.) *Fall.* Mr. Gulick.

130. INDIANS OF NORTH AMERICA (3).

A descriptive study of the culture areas of North America at the time of European contact, with emphasis on the Southeast.

Spring. Laboratory fee, \$1.00. Messrs. Johnson and Coe.

131. CULTURES OF SOUTH ASIA (3).

Reading, lectures, and visual aids cover the social and cultural history of India and Pakistan; linguistic and economic problems; constitutional organization; religions; literatures; and some local ways of life.

(1958-1959 and alternate years.) *Fall.* Mr. Honigmann.

132. NATIVE PEOPLES AND CULTURES OF SOUTH AMERICA (Folklore 132) (3).

An approach to the understanding of South America in ethnological terms; aboriginal physical types, archaeology, and cultures are surveyed. The development of modern Latin American civilization is analyzed against this background.

(1959-1960 and alternate years.) *Fall. Materials fee, \$1.00.* Mr. Gillin.

135. INTRODUCTION TO CULTURAL SYMBOLISM (3).

The symbolic process as a fundamental factor in behavior—specifically in art, religion, language, and world-view.

Spring. Mr. Gulick.

136. COMPARATIVE SOCIAL ORGANIZATION IN SELECTED CULTURES (Sociology 136) (3).

An analysis of recurrent systems of kinship behavior, local grouping, and institutional controls in a number of non-industrial cultures.

(1958-1959 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gulick.

137. THE MIDDLE EAST: PEOPLES AND CULTURES (3).

Emphasis on current acculturation problems as related to the various ecological, social, linguistic, and religious systems of the area whose cultural history is also considered.

(Not offered in 1959-1960.) *Fall.* Mr. Gulick.

185. INTRODUCTION TO FOLKLORE (Folklore 185) (Comparative Literature 185) (English 148) (3).

(See Folklore 185 for description.)

Fall. Mr. Hudson.

Courses for Graduates

200. ADVANCED SURVEY OF ANTHROPOLOGY (3).

An intensive survey of all branches of Anthropology as a scientific discipline, with attention to current findings and orientations. Required of all graduate majors and minors in anthropology.

Fall. Laboratory fee, \$1.00. Messrs. Gillin and Gulick.

220. THEORIES OF CULTURE (Sociology 220) (3).

A systematic survey of the history of theory in cultural anthropology leading to the development of a system of operational principles which the student may apply in his own field work and further studies involving cultural problems.

(1959-1960 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Gillin.

221. FIELD METHODS IN CULTURAL ANTHROPOLOGY (Sociology 221)

(3).

Practical exercises and discussion cover topics of role taking, observation, interviewing, note taking, and pattern generalization.

(1958-1959 and alternate years.) *Spring.* Mr. Honigmann.

229. CULTURE AND PERSONALITY (Sociology 229) (3).

A scientific analysis of the influence of cultural forms on the individual in our own and other societies, considered from the anthropological, psychological, and clinical points of view.

(1959-1960 and alternate years.) *Spring. Materials fee, \$1.00.* Mr. Honigmann.

230. RACE AND CULTURE CONTACTS (Sociology 230) (Folklore 230) (3).

An analysis of acculturation situations arising from contacts of peoples of different racial or cultural heritages in America, Africa, Polynesia, Melanesia, and other areas.

Spring. Mr. Johnson.

234. CULTURES OF NORTHERN NORTH AMERICA (3).

Cultural dynamics as manifested in the lifeways of the Indians, Eskimo, and white settlers of the Arctic and sub-Arctic. Emphasis on contemporary trends and research possibilities.

(1958-1959 and alternate years.) *Spring.* Mr. Honigmann.

301, 302. READING AND RESEARCH (3 each semester).

Fall and spring. Staff.

315, 316. READING AND RESEARCH IN METHODOLOGY (3 each semester).

(3 each semester).

Fall and spring. Staff.

321, 322. FIELD RESEARCH (3 each semester).

Fall and spring. Staff.

327, 328. SEMINAR IN SELECTED TOPICS (3 each semester).

Fall and spring. Staff.

341. MASTER'S THESIS (3).

Individual research in a selected field under the direction of a member of the department.

Fall and spring. Staff.

342. DOCTORAL DISSERTATION (3).

Individual research in a selected field under the direction of a member of the department.

Fall and spring. Staff.

RECREATION LEADERSHIP⁵**Courses for Undergraduates**

For descriptions of courses, see sections on General Sociology, Rural Sociology, and Anthropology.

Required courses (in addition to Sociology 51 and Anthropology 41):

Sociology 56 How to Study Society
Sociology 75 Community Organization

Any four of the following:

Sociology 173 Community Recreation
Sociology 176 Program Planning for Community Recreation
Sociology 177 Administration of Recreation
Sociology 178 Personnel Practices in Organized Recreation
Sociology 179 Recreation Areas, Facilities and Social Programs
One other Sociology elective

After fulfillment of divisional and non-divisional requirements, for majors who find it possible to take extra work in sociology, the following are suggested: Sociology 101, 128, 133, 153 or 186, 154 or 183, 161, 166, 168, 169, 170, 180 or 181, 190 or 193, 191.

In order to receive the proper professional preparation, especially for work in (1) the field of administration and supervision, and (2) the field of a specialty, the student should have at least one year of graduate work. In addition to Sociology 173, 176, 177, 178, and 179, all of which are courses in recreation leadership, for which either undergraduate or graduate credit can be received, there are Sociology 271, 321, and 341 strictly at the graduate level.

Master of Arts Degree in Sociology with major emphasis on recreation leadership

Since this is a graduate degree in sociology, the student must have an undergraduate major in sociology or make up the courses for such a major before he can receive credit for graduate work in the department. Formal course requirements at the graduate level for this degree are:

- (1) Six courses in sociology, two of which must be Sociology 173 and 208, and a thesis.
- (2) Three courses in a minor field.

Master of Science in Recreation Administration

This program leading to the degree of Master of Science in Recreation Administration brings together several related disciplines and offers a diversified area for specialization. A common core of courses is required. The minor may be selected from not more than two departments.

5. Courses in Recreation Leadership carry regular designation "Sociology" on registration forms.

The program is domiciled in the Department of Sociology and Anthropology and administered by advisers who are members of that department. For advice concerning this program, prospective students should consult the advisers. Application for admission should be made to the Dean of the Graduate School.

All students admitted to this program must fulfill requirements for admission to the Graduate School (see Graduate Catalogue). To be admitted unconditionally, applicants will be required to have prerequisite training equivalent to an undergraduate major in one of the following: dramatic art, physical education, education, political science, recreation, or sociology. In addition, Sociology 51 (Introduction to Sociology) or its equivalent is required.

This program will normally require more than two semesters for completion.

SPEECH
(See English)

DEPARTMENT OF STATISTICS

Professors: G. E. NICHOLSON, JR., HAROLD HOTELLING, R. C. BOSE, S. N. ROY, WASILY HOFFDING¹

Associate Professor: W. L. SMITH

Visiting Professor: D. B. DUNCAN

Visiting Associate Professors: JUNJIRO OGAWA, S. S. SHRIKHANDE

Visiting Assistant Professor: W. J. HALL

Research Associates: L. C. A. CORSTEN, GEORGE ZYSKIND

Teaching Assistant: K. R. GABRIEL

Research Assistants: S. J. AMSTER, J. H. BAILEY, V. P. BHAPKAR, NORMAN BUSH, P. M.

COHEN, E. A. GREEN, V. K. MURTHY, D. E. A. QUADE, D. K. RAY-CHAUDHURI

National Science Foundation Fellows: R. P. BLAND, R. C. BURTON

Graduate Fellows: J. J. GOODE, R. E. THOMAS

Although the Department of Statistics is primarily a graduate department, basic courses in statistical analysis and theory are offered for undergraduates majoring in other fields. Students who have limited mathematical backgrounds and who plan to take a single course in statistics should elect Statistics 100. The basic analysis sequence consists of Statistics 101 and 102. The basic theory of probability and statistics, required for all advanced work in the department, is contained in Statistics 134-135. The analysis and theory sequences are usually taken concurrently. These courses contain the fundamentals of the modern theory and methodology of statistics and are recommended for students in all fields. Statistics 131 is offered for students requiring a course in probability theory alone.

¹. Absent on leave, fall semester, 1958-1959.

Other statistics courses of special interest to undergraduates are Statistics 182, 183, and 197, and courses offered by the Department of Experimental Statistics (State College) and Biostatistics (School of Public Health) and others.

Union Carbide Scholarships are available to undergraduates who may consider subsequent study of statistics. Freshmen, sophomores, juniors, and seniors in the departments of Chemistry, Economics, Mathematics, and Physics are eligible for these scholarships, which cover tuition and incidental expenses through graduation. For information concerning these, inquiry should be addressed to the chairman of the Department of Statistics.

Master of Science and Doctor of Philosophy degrees are offered by the department. Although desirable, previous work in statistics and probability is not essential for graduate study in statistics; a sound background in mathematics is of greater importance. Advanced calculus is an essential prerequisite, and courses in matrices and real and complex variable theory are recommended, as well as courses in any intended field of application.

For further information concerning the graduate programs, graduate fellowships and assistantships, the facilities of the department, careers in statistics, etc., see the Graduate School special bulletin on statistics which may be obtained from the department; also see the Graduate School Catalogue and the section of this catalogue entitled Institute of Statistics.

Courses for Graduates and Advanced Undergraduates

100. PRINCIPLES OF STATISTICAL INFERENCE (City Planning 100) (3). Prerequisite, college algebra.

Introduction to fundamental concepts of statistical inference. The role statistical reasoning plays in the formulation of decisions based on incomplete information. Methods of dealing with the behavior of complex phenomena and of discovering relationships between variables. Testing hypotheses and evaluation of risks and errors. Application of principles to specific problems.

Fall. Messrs. Nicholson and Duncan.

101. STATISTICAL ANALYSIS I (4). Corequisite, integral calculus.

Fundamentals of the analysis and interpretation of statistical data. Techniques for dealing with binomial, Poisson, normal and other important distributions. Comparison of sets of measurements. Analysis of variance, randomized blocks, Latin squares. Measurement and analysis of attributes and the comparison of proportions. Interrelations of sets of measurements, regression, correlation. Single degrees of freedom.

Three lecture and two laboratory hours a week, fall. Mr. Nicholson.

102. STATISTICAL ANALYSIS II (4). Prerequisite, Statistics 101.

Concomitant observations, comparison of regression coefficients, analysis of covariance, non-orthogonality, non-orthogonality when interaction exists, components of variance, discriminant functions. Use of transformations, methods of analyzing non-normal data. Nonparametric and distribution free methods. Techniques for designing experiments. Use of method of least squares for analyzing designed experiments.

Three lecture and two laboratory hours a week, spring. Mr. Nicholson.

131. ELEMENTARY PROBABILITY (3). Prerequisite, advanced calculus.

Logical foundations and axiomatic treatment of probability. Conditional probability. Additive and multiplicative laws. Bayes' theorem and inverse probability. Binomial and Poisson distributions. Moments and moment generating functions. Law of large numbers and central limit theorem. Convolution of distributions.

Fall. Mr. Duncan.

134. INTRODUCTION TO STATISTICAL THEORY I (5). Prerequisite, advanced calculus.

Relative-frequency and axiomatic definitions of probability. The concept of a random sample. Additive and multiplicative laws. Univariate and multivariate, marginal and conditional distributions. Discrete and continuous cases. Moments, cumulants, generating functions. Transformation of variables. Introduction to tests of simple hypotheses and interval estimates. Model building. Special distributions; binomial, Poisson, normal, etc. Law of large numbers. Central limit theorem. Order statistics. Multinomial distribution theory. Chi-square.

Four lecture and two laboratory hours a week, fall. Mr. Duncan.

135. INTRODUCTION TO STATISTICAL THEORY II (5). Prerequisite, Statistics 134.

Distributions of functions of random normal samples. F and t distributions. Point estimation. Properties of estimators, maximum likelihood. Information. Cramér-Rao inequality. Interval estimation. Neyman-Pearson tests of hypotheses. Likelihood ratio tests. Contingency tables. Chi-square tests of goodness of fit. General linear models. Least squares. Minimum-variance linear unbiased estimators. General F test. Orthogonal polynomials. Elementary theory of experimental designs. Covariance analysis. Variance components, Models I and II. Normalizing transformations. Elements of decision theory and sequential and nonparametric inference.

Four lecture and two laboratory hours a week, spring. Mr. Duncan.

144. CORRELATION, CONTINGENCY, AND CHI TESTS (3). Prerequisite, Statistics 135; corequisite, Mathematics 147 (Matrices).

Elements of the theory of testing composite hypotheses. Multivariate normal populations; total, partial and multiple correlations. Singular multivariate distributions. Tests of independence, homogeneity, and goodness of fit. Contingency tables; exact tests for independence and the chi approximation. Many-dimensional contingency tests.

Spring. Mr. Hotelling.

182. MATHEMATICAL ECONOMICS (Economics 182) (3). Prerequisite, Mathematics 171 (Advanced Calculus); corequisite, Mathematics 147 (Matrices).

Perfect and imperfect competition. Monopoly. Utility vs. ranking of preferences. Relations between commodities. General equilibrium. Effects of taxes and control of various kinds. Index numbers.

(1958-1959 and alternate years.) *Fall.* Mr. Hotelling.

183. ADVANCED MATHEMATICAL ECONOMICS (Economics 183) (3). Prerequisites, Statistics 182 and Mathematics 141 (Differential Equations).

Dynamic variations in the economy. Calculus of variations and stochastic process theory with applications to economic problems. Valuation, depreciation, and depletion. Most profitable rates of exploitation of mineral and biological resources. (1958-1959 and alternate years.) *Spring*. Mr. Hotelling.

197. POPULATION STATISTICS (Sociology 197) (3). Prerequisite, permission of the instructor.

Training in techniques for quantitative research with population data, composition characteristics, making of population estimates, computation and standardization of birth and death rates, construction and application of life tables, measurement of migration.

Two lecture and two laboratory hours a week, spring. Laboratory fee, \$2.00.

Courses for Graduates

For descriptions of the courses listed below see the Graduate School special bulletin on statistics.

202. METHODS OF OPERATIONS RESEARCH (3). Prerequisite, Statistics 135.

Fall. Mr. Nicholson.

204. SELECTED TECHNIQUES OF APPROXIMATION (3). Prerequisite, advanced calculus.

(1959-1960 and alternate years.) *Fall*. Mr. Hotelling.

208. SAMPLE SURVEY THEORY (3). Prerequisite, Statistics 134.

Fall or spring. Messrs. Roy and Nicholson.

210. ADVANCED STATISTICAL ANALYSIS I (3). Prerequisite, Statistics 135.

Fall.

211. ADVANCED STATISTICAL ANALYSIS II (3). Prerequisite, Statistics 210.

Spring.

220. THEORY OF ESTIMATION (3). Prerequisites, Statistics 135 and 231.

Fall. Messrs. Hall and Smith.

221. TESTS OF HYPOTHESES. TWO-DECISION RULES (3). Corequisite, Statistics 220.

Spring. Mr. Hoeffding.

222. NONPARAMETRIC INFERENCE (3). Prerequisites, Statistics 135 and 231.

Spring. Mr. Hoeffding.

231. ADVANCED PROBABILITY (3). Prerequisite, Statistics 131 or 134.

Spring. Messrs. Smith and Hall.

232. GENERAL THEORY OF STATISTICAL DECISION (3). Prerequisite, Statistics 231.

Spring. Mr. Hoeffding.

233. LEAST SQUARES AND TIME SERIES (3). Prerequisites, Statistics 134 and Mathematics 147 (Matrices).

Fall or spring. Mr. Hotelling.

235. STOCHASTIC PROCESSES AND THEIR APPLICATION (3). Prerequisite, Statistics 135.

Fall. Mr. Smith.

237. TIME SERIES ANALYSIS (3). Prerequisite, Statistics 233.
(1959-1960 and alternate years.) *Spring*. Mr. Hotelling.
250. ADVANCED ANALYSIS OF VARIANCE AND COVARIANCE WITH APPLICATIONS TO EXPERIMENTAL DESIGNS. Prerequisite, Statistics 135.
Fall. Messrs. Shrikhande and Bose.
251. COMBINATORIAL PROBLEMS OF THE DESIGN OF EXPERIMENTS (3). Prerequisite, Statistics 250.
Spring. Mr. Bose.
260. MULTIVARIATE ANALYSIS (3). Prerequisites, Statistics 135 and Mathematics 147 (Matrices).
Fall. Mr. Roy.
261. ADVANCED MULTIVARIATE ANALYSIS (3). Prerequisite, Statistics 260.
Spring. Mr. Roy.
- 300-301. SEMINAR IN STATISTICAL ANALYSIS (3 each). Prerequisite, a course requiring Statistics 135 as a prerequisite.
Fall and spring. Staff.
- 310-311. SEMINAR IN THEORETICAL STATISTICS (3 each). Prerequisite, a course requiring Statistics 135 as a prerequisite.
Fall and spring. Staff.
- 321-322. SPECIAL PROBLEMS (3 each). Prerequisite, permission of the instructor.
Fall and spring. Staff.
- 331-332. ADVANCED RESEARCH (3 each). Prerequisite, permission of the instructor.
Fall and spring. Staff.

DEPARTMENT OF ZOOLOGY

- Professors: R. E. COKER,¹ C. D. BEERS, D. P. COSTELLO, W. L. ENGELS, C. S. JONES, MAURICE WHITTINGHILL
- Associate Professors: C. E. JENNER, *Chairman*, M. R. CARRIKER, D. G. HUMM, H. E. LEHMAN
- Assistant Professor: LILLIAN Y. LEHMAN
- Research Associate: CATHERINE HENLEY
- Research Assistants: J. W. BLAKE, IRMA G. HONIGMANN, JANE H. HUMM, YOON T. KIM, BONNY M. LEWIS
- Teaching Fellow: P. R. BURTON
- Graduate Assistants: D. G. ALEXANDER, T. R. BELLO, G. W. BRYCE, JR., D. G. DAVIS, C. C. HENDRICKSON, JR., W. S. JAMES, P. E. LUTZ, ELLEN W. McLAUGHLIN, T. H. TURNEY, JR.
- Undergraduate Assistants: R. B. BUTLER, D. J. KROE

For the A.B. degree with major in zoology there are required at least twenty courses of junior and senior standing, distributed as follows. (1) Six to eight courses in zoology of the level of 41 or higher, these courses to include Zoology 41, 42, 103, 104, and at least two additional laboratory courses. (2) Six or seven courses in allied

1. Kenan Professor, Emeritus.

departments of the Division of Natural Sciences, to include Botany 41, at least two courses in chemistry, and at least two in physics. Courses numbered below 21 may not be counted as satisfying this requirement. (3) Six or seven courses in departments outside the Division of Natural Sciences.

Students who plan to major in zoology should take Zoology 41 and 42 during their sophomore year.

Those students who plan to teach in public high schools should read the general statement under the School of Education, page 165.

With the recommendation of the department and the approval of the Administrative Board of the Graduate School, special courses and direction of graduate studies may be offered by members of the staff of the Institute of Fisheries Research, for which students may consult their major adviser.

Courses for Undergraduates

1. ELEMENTS OF HUMAN AND ANIMAL BIOLOGY (4). Freshman elective. Zoology 1 and Botany 1 are offered primarily for students who do not plan to major in the biological sciences. For introductory work toward a major or for pre-professional training, refer to Zoology 41, 42 and Botany 41, 42. However, credit for Zoology 1 is not cancelled by the completion of Zoology 41 or 42.

Basic similarities of all living organisms; organ systems and their physiology; embryology, genetics, organic evolution, ecology; survey of the major phyla.

Three lecture and two laboratory hours a week, fall and spring. Laboratory fee, \$3.00. Messrs. Lehman, Carriker, Humm; assistants.

41. INTRODUCTORY VERTEBRATE ZOOLOGY (4). No prerequisite. Not open to freshmen. Zoology 41 and 42 are planned to serve general cultural needs and to meet in part the usual pre-professional requirements.

Fundamentals of vertebrate anatomy, physiology, histology, embryology, classification, and homology.

Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$7.50. Mr. Jones, Mrs. Lehman; assistants.

42. INTRODUCTORY INVERTEBRATE ZOOLOGY AND PRINCIPLES (4). No prerequisite. Not open to freshmen.

Structure, function, relationships, and significance of invertebrate animals; and the general zoological principles of mitosis, meiosis, genetics, classification, ecology, and organic evolution.

Three lecture and four laboratory hours a week, fall and spring. Laboratory fee, \$7.50. Mr. Carriker, Mrs. Lehman; assistants.

72. HUMAN GENETICS (3). Prerequisite, Zoology 1 or Zoology 42.

An elementary study of biological inheritance in man. Effects of mutation, selection, migration, and racial mixture; applications of genetics to medico-legal questions.

Three lecture hours a week, spring. Mr. Whittinghill.

78. ANIMAL EVOLUTION (3). Prerequisites, Zoology 1 or Zoology 41 and 42.

Organic evolution as the unifying biological concept: historical development; nature of evidence; Darwinian and neo-Darwinian concepts; theories of mechanism; some impacts in other fields.

Three lecture and demonstration hours a week, spring. Mr. Jones.

99a-99b. COURSE FOR HONORS (1½ each).

Reading, original research, and the preparation of an essay under the direction of a departmental adviser. Required of all candidates for honors.

NOTE: Courses in Directed Teaching in High School Science and in Materials and Methods of Teaching High School Science will be found under the School of Education.

Courses for Graduates and Advanced Undergraduates

101, 102. ANIMAL BIOLOGY FOR THE SECONDARY SCHOOL TEACHER (4 each).

The content and current significance of some major fields and concepts of zoology, e.g., morphology, physiology, embryology, genetics, evolution; especially for biology and general science teachers.

Three lecture and three laboratory-demonstration hours a week. Laboratory fee, \$5.00 each. Mr. Jones.

103. COMPARATIVE VERTEBRATE ANATOMY (4). Prerequisites, Zoology 41 and 42.

Lectures on the structure and evolutionary history of the chief organ systems of vertebrates. Dissections of amphioxus, petromyzon, dogfish head, necturus, and cat.

Two lecture and six laboratory hours a week, fall. Laboratory fee, \$12.50. Mr. Engels.

104. VERTEBRATE EMBRYOLOGY (4). Prerequisites, Zoology 103, or Zoology 41, 42, and special permission of the instructor.

Development in representative vertebrates, including man; special study of fertilization, cleavage, germ-layer formation, organogenesis, and extra-embryonic membranes, using frog, chick, and pig.

Two lecture and six laboratory hours a week, spring. Laboratory fee, \$10.00. Mr. Lehman.

105. VERTEBRATE HISTOLOGY AND MICROTECHNIQUE (4). Prerequisite, Zoology 103 or special permission of the instructor. Exceptions may be made for students majoring in medical technology.

The preparation of selected tissues and organs for microscopic examination; study of these to acquaint the student with the essentials of histology.

One lecture and six laboratory hours a week, spring. Laboratory fee, \$10.00. Mr. Costello.

109. INTRODUCTION TO HYDROBIOLOGY (4). Prerequisites, Zoology 41 and 42.

A study of living organisms in the aquatic habitat, with special reference to the relation of animals to their environment—physical, chemical, and biological.

Two lecture and six laboratory and field hours a week, fall. Laboratory fee, \$7.50. Mr. Jenner.

110. GENERAL PARASITOLOGY (4). Prerequisites, Zoology 41 and 42.

A study of classification, structure, and life cycles of parasites of invertebrates and vertebrates, including man; consideration of the arthropods which cause or transmit disease.

Two lecture and four laboratory hours a week, spring. Laboratory fee, \$7.50. Mr. Jenner.

111. GENETICS (4). Prerequisite, Zoology 42.

The principles of Mendelian heredity, linkage, mutation, population mechanics, and the relation between genes and environment in development. Laboratory experiments with *Drosophila* and maize.

Two lecture and four laboratory hours a week, fall. Laboratory fee, \$7.50. Mr. Whittinghill.

112. VERTEBRATE FIELD ZOOLOGY (4). Prerequisite, Zoology 41.

An introduction to the natural history of vertebrates. Lectures on selected topics. Laboratory and field exercises on the identification, habits, and local distribution of amphibians, reptiles, birds, mammals.

Two lecture and six laboratory and field hours a week, spring. Laboratory fee, \$7.50. Mr. Engels.

118. EXPERIMENTAL MORPHOGENESIS OF VERTEBRATES (3). Prerequisite, Zoology 104.

A study of problems in vertebrate development relating to determination, differentiation, organogenesis, and regeneration, including the concepts of dependent development, tissue affinities, gradients, and fields.

Three lecture or discussion hours a week, spring. Mr. Lehman.

120. COMPARATIVE PHYSIOLOGY (4). Prerequisites, Zoology 41 and 42; prerequisite or corequisite, organic chemistry.

Fundamental chemical and physical principles as applied to living systems; the comparative physiology of movement, respiration, digestion, excretion, and nervous transmission.

Two lecture and six laboratory hours a week, fall. Laboratory fee, \$10.00. Mr. Humm.

146. MARINE ECOLOGY (4). Prerequisites, Zoology 41 and 42; or Zoology 42 and special permission of the instructor.

An introductory study of oceanography as it pertains to the ecology of marine organisms; consideration of biological productivity and fisheries problems. Guest lectures by members of the Institute of Fisheries Research.

Three lecture and two laboratory hours a week, and two two-day field trips to the coast, spring. Laboratory fee, \$3.00. Mr. Carriker.

Courses for Graduates

206, 207. MORPHOLOGY AND CLASSIFICATION OF THE INVERTEBRATES (5 each).

Dissection and microscopic study of selected types, with consideration of life histories and phylogeny. Basic course for all graduate work in zoology.

Two lecture and six laboratory hours a week, fall and spring. Laboratory fee, \$7.50 a semester. Mr. Beers.

209, 210. EXPERIMENTAL EMBRYOLOGY (5 each). Prerequisite, Zoology 104.

The study of fertilization, cell-lineage, differentiation, and regeneration of invertebrates and vertebrates from the experimental viewpoint.

Five lecture, seminar, and demonstration hours a week, fall and spring. Mr. Costello.

212. HYDROBIOLOGY (3). Prerequisite, Zoology 109.

The study of aquatic organisms and environments, with attention restricted to a particular topic, as a small group of animals, a limited set of habitats, or special phenomena of behavior.

Six laboratory and conference hours a week, spring. Laboratory fee, \$7.50. Mr. Jenner.

213. ADVANCED MARINE ECOLOGY (3). Prerequisites, Zoology 109 and 146; or Zoology 146 and special permission of the instructor.

A study of the organisms of coastal waters in relation to their physical, chemical, and biotic environments.

Six lecture, seminar, or laboratory hours a week, and one or more field trips to the coast, spring. Laboratory fee, \$7.50. Mr. Carriker.

215. PROTOZOOLOGY (3).

Introduction to research in protozoology. The collection, identification, and culture of selected types, chiefly free-living; microtechnical methods; survey of current literature.

Six laboratory and seminar hours a week, fall. Laboratory fee, \$7.50. Mr. Beers.

220. CELLULAR PHYSIOLOGY (4). Prerequisites, Zoology 120 and organic chemistry.

The physico-chemical aspects of protoplasm, including permeability, surface tension, pH, cellular metabolism, and other measurable properties of living cells.

Two lecture and four laboratory and problem hours a week, spring. Laboratory fee, \$10.00. Mr. Humm.

222. ADVANCED GENETICS (3). Prerequisite, Zoology 111.

The effects of chemical agents in the environment upon inheritance. Reports from the literature chiefly upon chemical mutagenesis. Laboratory experiments on the chemical induction of crossing over.

Six laboratory and conference hours a week, spring. Laboratory fee, \$7.50. Mr. Whittinghill.

223. RADIATION GENETICS (3). Prerequisite, Zoology 111.

Study of the action upon living cells of irradiation by X-rays, neutrons, infrared, ultraviolet, and other forms of radiation. Crossing over and mutations are emphasized.

Three lecture or seminar hours a week, fall. Mr. Whittinghill.

330. RESEARCH IN PROTOZOOLOGY (3 or more).

Mr. Beers.

331. RESEARCH IN INVERTEBRATE ZOOLOGY (3 or more).

Mr. Beers.

332. RESEARCH IN EXPERIMENTAL CYTOLOGY (3 or more).

Mr. Costello.

333. RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF INVERTEBRATES (3 or more).

Mr. Costello.

334. RESEARCH IN CELL PHYSIOLOGY (3 or more).

Mr. Humm.

335. RESEARCH IN HYDROBIOLOGY (3 or more).

Mr. Jenner.

336. RESEARCH IN VERTEBRATE ZOOLOGY (3 or more).

Mr. Engels.

337. RESEARCH IN GENETICS (3 or more).

Mr. Whittinghill.

338. RESEARCH IN PHYSIOLOGY OF LOWER INVERTEBRATES (3 or more).

Mr. Jones.

339. RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF VERTEBRATES (3 or more).

Mr. Lehman.

340. RESEARCH IN MARINE ECOLOGY (3 or more).

Mr. Carriker.

Courses 330 through 340 are designed for applicants for advanced degrees. The work of each of these courses may be continued for two or more semesters under the same course number. *Each course six or more laboratory and conference hours a week, fall and spring. Laboratory fee, \$5.00 per 3 semester hours.*

Part Five

DIVISIONS, INSTITUTES, ORGANIZATIONS, AND FOUNDATIONS

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

The President and Chancellor head each of the divisions, institutes, and organizations listed in Part V except the foundations.

THE UNIVERSITY EXTENSION DIVISION

CHARLES FREMONT MILNER, A.M. in Educ., *Acting Director*

DWIGHT CARROLL RHYNE, A.M., *Associate Director*

The Administrative Board¹

JOHN CHARLES BRAUER, D.D.S., *Professor of Pedodontics and Dean of the School of Dentistry*

ALBERT COATES, LL.B., *Professor of Law and Director of the Institute of Government*

VICTOR AUGUST GREULACH, Ph.D., *Professor of Botany*

CECIL SLATON JOHNSON, Ph.D., *Professor of History and Dean of the General College*

ARNOLD KIMSEY KING, Ph.D., *Professor of Education and Director of the Summer Session*

DAVID GEETING MONROE, Ph.D., *Professor of Political Science*

ARNOLD PERRY, Ed.D., *Professor of Education and Dean of the School of Education*

WILLIAM PERRY RICHARDSON, M.D., *Professor of Preventive Medicine and Assistant Dean in Charge of Continuation Education*

JOSEPH CARLYLE SITTESON, Ph.D., *Professor of History and Dean of the College of Arts and Sciences*

WILLIAM SMITH WELLS, Ph.D., *Kenan Professor of English and Chairman of the Faculty*

REX SHELTON WINSLOW, Ph.D., *Professor of Economics and Director of the Bureau of Business Services and Research*

EARL WYNN, M.S., *Professor of Radio, Television, and Motion Pictures, Director of the Communication Center, and Director of Television*

1. The Chancellor, the Director of Admissions, and the Dean of Student Affairs are ex officio members of the Board.

Heads of Bureaus

- KENNETH MURCHISON MCINTYRE, M.Ed., *Audio-Visual Education*
 MARY ELIZABETH HENRY, A.B., *Correspondence Instruction*
 JAMES GORDON STEAGALL, B.S. in B.A., *Conferences and Short Courses*
 NORMAN CORDON, Mus.D., *North Carolina Music Program*
 EDGAR RALPH RANKIN, A.M., *School Relations*
 LOUISE PENDERGRAFT, *School Tests and Materials Office*

Heads of Cooperative University Services

- REX SHELTON WINSLOW, Ph.D., *Bureau of Business Services and Research*
 EARL WYNN, M.S., *The Communication Center*
 HENRY TOOLE CLARKE, JR., M.D., *Continuation Education, Division of Health Affairs*
 JOHN WILLIAM PARKER, A.M., *Bureau of Community Drama*
 ARNOLD PERRY, Ed.D., *Bureau of Educational Research and Service*
 EARL HORACE HARTSELL, Ph.D., *Bureau of English Extension*
 HAROLD DIEDRICH MEYER, A.M., LL.D., R.S.D., L.H.D., *Bureau of Recreation*

General Statement

"It shall be the duty of the faculty of the University to extend its influence and usefulness as far as possible to the persons of the state who are unable to avail themselves of its advantages as resident students, by extension courses, lectures, and by such other means as may seem to them most effective."—General Statutes of North Carolina, Section 116-15.

Frank Porter Graham defined the purposes of university extension thus: "It is the function of the state university not only to find its bits of truth and teach the truth gathered from scholars everywhere, but to carry the truth to the people that they may take it into their lives and help to make it prevail in world affairs. It is the ideal of the University Extension Division to make the resources of the universities, the discoveries of science, and the findings of the social scientists available for the people of the commonwealth."

Starting as a Bureau of Extension in 1912 under the leadership of Dr. L. R. Wilson, former University Librarian, the idea of University extension was clarified and expanded during the administration of President Edward Kidder Graham. In 1921, in conformity with standards established by the National University Extension Association, the work was organized as a major division of the University by President Harry W. Chase.

The Extension Division is the administrative agency through which the University extends its services to the people. It is the function of the Division to sponsor and develop educational services to citizens of the state which the University of North Carolina can provide better than any other public institution of higher learning.

Services of the Division may be broadly categorized as the offering of regular University courses through extension classes, correspondence instruction, and television; non-credit adult education programs and services on the campus and throughout the state; and services to the public schools. Brief descriptions of these services are included in the following statements of the Extension Division Bureaus and the Cooperative University Services.

Bureau of Audio-Visual Education

The audio-visual materials and services of the Bureau of Audio-Visual Education are available to all schools, colleges, civic groups, and other agencies on a non-profit basis. The services are designed primarily to aid any group with the selection, distribution, and utilization of educational films and other audio-visual programs, materials, or media. A recent development which provides duplication of recorded programs on magnetic tape is also available.

The Bureau of Audio-Visual Education operates an adult film service in cooperation with the North Carolina public libraries. Films for community programs, business and industry, and other adult groups are made available each month through public libraries participating in this project. These films cover such topics as human relations, fine arts, international affairs, and personnel relations. Anyone interested in this service will be furnished detailed information on request.

A Film Forum on World Affairs is sponsored for adult study groups. The film forum consists of meetings in each of which a film is shown to focus attention on one major issue of American foreign policy or a problem of world peace. Film forums or adult study groups using audio-visual materials in the areas of music, art, and human relations may be arranged on request to suit the needs of individual groups.

Technical services to faculty, students, and campus activities such as inspection, repair, and replacement of lamps and accessories for projected and auditory aids are available. The Bureau of Audio-Visual Education is also prepared to offer advisory services and reference information on audio-visual materials, equipment, and media. The film rental and tape recording programs are described in the *University Extension Bulletin*, Vol. XXXVII, No. 2, "Audio-Visual Materials for Schools, Colleges, Churches, and Adult Study Groups."

Bureau of Class Instruction

Extension courses in regular University subjects are offered in communities throughout the state. Evening classes are organized in Chapel Hill each semester for persons who live within convenient

driving distance of the University. These courses are taught by members of the University faculty and, when all requirements are met, give the same credit as courses in residence. Those not wishing degree credit are also eligible to enroll in extension classes.

An individual or group wishing to organize an extension class should make written application to the University Extension Division, giving the following information: probable number of enrollments, academic qualifications of persons who wish to join the class, course desired, when and where the class wishes to meet, and who will have charge of local arrangements.

In cooperation with the School of Education the Division administers the Charlotte and Goldsboro Graduate Centers.

Bureau of Correspondence Instruction

The Bureau of Correspondence Instruction makes available by correspondence one hundred eighteen University courses, written and taught by regular faculty members or qualified specialists approved by the Chancellor. All information concerning these courses is contained in the Catalogue of Correspondence Instruction. Courses are available for those interested in degree credit, teacher's certification credit, professional advancement or personal enjoyment.

The University of North Carolina accepts 30 semester hours' credit by correspondence toward an undergraduate degree, exclusive of the last year's work which must be taken in residence. A maximum of two courses may be taken by correspondence from this University during the last year.

Credit courses by television are made available through WUNC-TV, Channel 4. Some of these are based on correspondence courses, while others are offered as extension courses. Outlines are prepared especially for the lecture series.

Bureau of Conferences and Short Courses

The University arranges conferences and short courses for various organizations and groups at Chapel Hill and other North Carolina communities. These consist of intensive training programs or courses ranging in duration from one day to two weeks. The programs include specialized series of lectures, discussions, and demonstrations directed by leading speakers and teachers secured from the faculty of the University and from the state and nation.

During the course of each year, from ten to fifteen thousand adults from the state and region take part in these varied adult education projects and conferences. These activities range from North Carolina Symphony Workshops (conducted in several com-

munities in North Carolina), to an evening, non-credit Income Tax Preparation course taught on the University campus. Each of these programs is associated with and academically supervised by the University department directly concerned with the subject matter.

The North Carolina Music Program

The primary purpose of The North Carolina Music Program of the University Extension Division is to bring to the people of North Carolina an understanding and appreciation of the world's great music and, in such pursuits, to broaden their lives as well as their educational attainments.

The director, through the Institute of Opera of the North Carolina Music Program, produces the twice weekly FM radio broadcast "Let's Listen to Opera" (over WUNC, UNC during the college year and fifty-two Sunday afternoons each year over WMIT, Mt. Mitchell). The operas are broadcast in their entirety and total, over the two stations, about eighty-six operatic broadcasts per year. The estimated audience for this program is in excess of half a million for the combined listeners to WUNC and WMIT.

The broadening of this unique idea for the promulgation of good music in North Carolina is also being achieved through the services of the director to the North Carolina Congress of Parents and Teachers (of which he was appointed Music Chairman in May, 1957), the North Carolina Symphony Society, the Piano Clinic for Teachers and Students, the Band Clinic, the North Carolina Folklore Society, Public School Music, the Opera Film Forum (available to clubs, high schools and colleges), and required listening broadcasts to several college music departments.

The director is constantly seeking out and advising outstanding young musical talent in North Carolina. To enlarge this service, which includes voice teaching and operatic training, an associate director of the Program's Institute of Opera and Lecturer in Voice to the Extension Division has been appointed.

Bureau of School Relations

The University Extension Division, through this bureau, offers services to the schools primarily through the following activities: (a) state-wide high school debating contests; (b) state-wide high school study and discussion programs dealing with the general subject of building world peace; (c) state-wide high school contests in academic subjects; (d) the North Carolina Scholastic Press Institute; and (e) the North Carolina School Art Exhibition. The bureau cooperates with various agencies and individuals in its work with these activities.

The North Carolina High School Debating Union is the medium through which assistance in debating is offered. This organization was established in 1912-1913. Approximately one hundred high schools, represented by four debaters each, discuss some important question annually. The debating teams which win both in the triangular contests and in the district contests come to the University each spring to compete in the final contest for the Aycock Memorial Cup.

The High School World Peace Study and Speaking Program is the agency through which assistance is offered in the study and discussion of topics related to the building of world peace. Approximately two hundred high schools have participated annually since 1946-1947 in the discussion of such subjects as "What is the Responsibility of the United States in World Affairs?"; "How Can We Help to Build World Peace in the Atomic Age?"; "What Have Been the Achievements and What Are the Prospects of the United Nations?"; "The United Nations—Its Problems and Opportunities"; and "The Role of the United Nations in the Modern World." The speaking contests held in connection with this activity are local in nature in the individual schools.

High school contests in academic subjects are conducted each year in Latin (three divisions), Spanish, French, physics, mathematics, and chemistry. Renewable tuition scholarships in the University are offered to the winning students in these contests. In combined total, 8,908 high school students representing 479 school-enrollments participated in the academic contests which were held in 1957-1958. The academic contests are conducted jointly by this bureau and by the several University departments concerned.

Approximately four hundred high school students and faculty advisers come to the University each year for the convention of the North Carolina Scholastic Press Institute. This activity is conducted under the auspices of the University Extension Division, the School of Journalism, *The Daily Tar Heel*, and the North Carolina Department of Public Instruction.

The bureau, cooperating with other agencies, has charge of the printing and distribution of the bulletin for the Annual School Art Exhibition in alternate years. Participation in this activity is open to pupils in grades one through six in the schools of the state.

School Tests and Materials Office

The better known and most valuable standardized educational tests are collected here for prompt distribution on a non-profit basis to authorized educational agents. Both time and transportation costs may be saved by ordering from this office.

A committee composed of members of the staff of the School of Education serves in an advisory capacity in evaluating new releases and in approving those materials best suited to meet specific needs in different school situations.

Tests may be examined and compared in 204 Abernethy Hall and staff will gladly assist in helping to work out a well-rounded program. A catalogued listing of the tests and materials may be had by writing to the Office of School Tests and Materials, Box 1050, Chapel Hill, North Carolina.

COOPERATIVE UNIVERSITY SERVICES

Bureau of Business Services and Research

Extension of educational resources of the University to business and industry is accomplished by means of cooperative arrangements with the Bureau of Business Services and Research of the School of Business Administration. (See section of catalogue on the School of Business Administration for a description of this agency.) The Extension Division sponsors and services the adult education program for businessmen developed by the Bureau.

The most frequent components of this program are "Management Institutes" which are conducted annually in conjunction with trade associations of various lines of business such as bankers, realtors, wholesalers, furniture dealers, etc.

The program also includes conferences and short courses in functional areas of business management such as accounting, personnel, production, and insurance. These are conducted both on and off the campus for the benefit of business firms irrespective of trade lines.

The School of Business Administration has reserved specially equipped rooms and facilities for adult education programs. A branch office of the Extension Division has been established in these facilities to enable it to render service more effectively.

The Communication Center

The Communication Center is primarily a laboratory to the Department of Radio, Television, and Motion Pictures. Through such services, however, as WUNC radio, recording, graphic presentation, and still photography, the Communication Center provides an extension of the University to the people of North Carolina. (See Communication Center pp. 443.) By means of these communications tools and WUNC-TV, much of the University's vast well of knowledge may be visualized, auralized, and distributed through North Carolina, providing thus a wider educational opportunity for those who wish to learn.

Continuation Education, Division of Health Affairs

In cooperation with the Division of Health Affairs, the Extension Division conducts postgraduate medical and dental courses both on and off the campus. Short refresher courses, workshops, and conferences for public health officials, nurses, health educators, dietitians and other professional groups are held each year. Plans are being made for the development of a Pharmacy extension program, in cooperation with the North Carolina Pharmaceutical Association.

Bureau of Community Drama

The services of the Bureau of Community Drama are available to all schools, colleges, and communities throughout the state. Suggestions and advice on play production and direction may be obtained from this bureau.

Assistance is given in organizing, play selecting, the designing and making of scenery, costuming, and make-up and lighting. Arrangements may be made for assistance in the direction of a chosen play.

The bureau has at its disposal more than two thousand volumes of playbooks, books on acting, play production, little theatre organization, playwriting, stagecraft, lighting, costuming, make-up, etc. These are loaned upon payment of the postage and packing charges. By giving practical assistance to those interested in writing and producing plays, the bureau is seeking to promote and encourage dramatic art in the schools and communities of North Carolina and to stimulate interest in the writing of native drama.

The head of the Bureau serves as Executive Secretary of the Carolina Dramatic Association.

Bureau of Educational Research and Service

The bureau is maintained through the cooperation of the School of Education. The several members of the faculty of the School offer to the state the following services: educational tests and measurements; school surveys; teachers' appointments; advice and counsel with reference to school buildings, equipment, and general administrative problems.

Bureau of English Extension

In cooperation with the Department of English, the Division conducts professional services for teachers of high school English. The North Carolina High School English Institute is held each summer. The head of the Bureau serves as executive secretary of the North Carolina English Teachers Association and managing editor of the *North Carolina English Teacher*.

Services to teachers and students of English provided by the Bureau include: (1) Publication and distribution of the *North Carolina English Teacher* (four regular issues and the annual Student Issue). About 1,300 teachers and 2,100 students are served directly by the publication. (2) Professional meetings and conferences with estimated combined attendance of over 1,000. (3) Committee activities of the North Carolina English Teachers Association, co-ordinated by the Bureau. (4) Maintenance of exchange service with other state and regional associations. (5) Answering inquiries. (6) Keeping permanent records of English-teaching activities.

Bureau of Recreation

This bureau offers service in public recreation and leisure time problems through the Department of Sociology. Bibliographies and reading lists on the subject of sociology, community organizations, etc., are provided upon request. The Bureau Head serves as Consultant to the North Carolina Recreation Commission.

DIVISION OF HEALTH AFFAIRS

The Division of Health Affairs of the University includes the schools of Medicine, Dentistry, Public Health, Nursing, Pharmacy, and the North Carolina Memorial Hospital. It was established for the purpose of integrating and correlating the work of these professional schools and the hospital in their teaching and research programs within the University. Equally important, the Division through its Administrator and Advisory Board will attempt to correlate the teaching, research, and service functions of the University Health Center with the hospital and health agencies and services throughout the state.

Administratively the Division is under the direction of a full-time medical administrator, with an Advisory Board on which are the deans of the various professional schools concerned and the director of the Hospital.

Advisory Board

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

WALTER REECE BERRYHILL, A.B., M.D., Sc.D., *Dean of the School of Medicine*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean of the School of Dentistry*

EDWARD ARMOND BRECHT, Ph.D., *Dean of the School of Pharmacy*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the North Carolina Memorial Hospital*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*
EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., Sc.D., *Dean of the School of Public Health*
NATHAN ANTHONY WOMACK, S.B., M.D., *Chief of Staff of the North Carolina Memorial Hospital*

THE ALL-UNIVERSITY DIVISION OF RECREATION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*
WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*
CAREY HOYT BOSTIAN, Ph.D., *Chancellor of the North Carolina State College*
GORDON WILLIAMS BLACKWELL, Ph.D., *Chancellor of the Woman's College*
HAROLD D. MEYER, M.A., LL.D., R.S.D., L.H.D., *Director*

Advisory Board

C. HORACE HAMILTON
OLIVER K. CORNWELL
DOROTHY DAVIS

THOMAS I. HINES
ETHEL L. MARTUS
HAROLD D. MEYER
SAMUEL SELDEN

The All-University Division of Recreation was established by the Board of Trustees in 1947. The growth of recreation throughout the nation, and the demand for recreation leaders, centered interest in the University on its responsibility to train leaders for this field. For some time in the University at Chapel Hill there has been opportunity to train for recreation leadership. At the State College in Raleigh, curriculum interest is centered around the training of leaders for recreation in industry and rural life. The course interest at the Woman's College in Greensboro is in the training of community recreation leaders and workers in youth-serving agencies.

The All-University Division is designed to coordinate services, cooperate in the development of curricula, and integrate programs and activities.

The Division works in close cooperation with the North Carolina Recreation Commission and the North Carolina Recreation Society.

COMMUNICATION CENTER

EARL WYNN, *Director*

ROSS SCROGGS, *Associate Director; Director of Photography and Motion Pictures*

DONALD KNOEFFLER, *Director of Radio*

ELMER OETTINGER, *Acting Director of Television*

MACK PRESLAR, *Director of Recording*

1JOHN E. YOUNG, *Director of Television*

1JOHN S. CLAYTON, *Assistant Director in Production*

JOHN M. EHLE, JR., *Assistant Director in Writing*

SARAH ROSS HAMPTON, *Assistant Director in Finance*

ADEL HERBST MORRIS, *Secretary*

Communication Standing Committee

EARL WYNN, *Chairman*

BERNARD BOYD

CHARLES MILNER

RICHARD JAMERSON

WILLIAM S. NEWMAN

DONALD TARBET

NORVAL N. LUXON

The Communication Center functions as a production agency for the University and the state and as a laboratory for the Department of Radio, Television, and Motion Pictures. It operates an FM educational radio station, WUNC; the Chapel Hill Studio of WUNC-TV; the Photographic Laboratory; radio production studios; a recording studio; and a motion picture production laboratory and service. These facilities are used for the production of programs and materials for use at the University, to extend the University to the people of the state, and by students in the instructional program of the Department.

Radio Station WUNC

WUNC is a non-commercial educational FM radio station licensed by the Federal Communications Commission to the University of North Carolina. It is in its sixth year of operation. A gift by the Jefferson Standard Broadcasting Company of a 10,000 watt transmitter has permitted the station to increase its power to approximately 16,000 watts.

The operating staff is composed entirely of students participating voluntarily. Programs of an educational nature are broadcast by the station. In addition to locally originated programs, the station broadcasts features from the network of the National Association of Educational Broadcasters, the British Broadcasting Corporation, French Broadcasting System, and programs from other United States and foreign production agencies. Approximately fifty per cent of WUNC's programming is serious music.

1. Absent on leave, 1958-1959.

WUNC-TV

The Consolidated University of North Carolina operates WUNC-TV on Channel 4. Production facilities are located on the campuses of the University of North Carolina in Chapel Hill, North Carolina State College in Raleigh, and the Woman's College in Greensboro. The Chapel Hill studio is operated as part of the Communication Center.

For further information see Television Station WUNC-TV on page 445.

The Photographic Laboratory

The Photographic Laboratory of the Communication Center serves the photographic needs of most of the departments and divisions of the University. These needs have increased yearly during the life of the Laboratory, but continual improvement and expansion of its facilities have kept services abreast of demand. This modern photographic facility supplies both still and motion picture service for research, as well as for more general purposes. The Photographic Laboratory also serves as the workshop for the instructional program in photography.

Motion Picture Laboratory

The Photographic Laboratory also operates a studio, control room, and cutting room for motion picture laboratory production. Equipped with lighting units, 16mm motion picture cameras, and editing equipment, these facilities are used in the instructional program of the Department of Radio, Television, and Motion Pictures and for service to the campus and state.

Radio Production

Radio production at the University of North Carolina may be considered under three general categories:

The first is a function of the Department of Radio, Television, and Motion Pictures: to offer the opportunity for students enrolled in radio production courses to participate in creative work through which and in which they may learn about themselves and the world of which they are a part.

In the department, opportunity also exists in radio production for the learning of specific techniques now employed in the commercial field of radio, for absorbing through outside reading and through classroom participation something of the heritage which has produced our present day forms, and for building criteria, which will permit the development of a deepened appreciation and criticism of what is being produced in the field.

In the Communication Center, programs are produced with the hope that they are appropriate to the aims and objectives of a great university. The Communication Center has been encouraged by its sponsors, by its listeners, by the community, and by the awards of critical groups in the field that it is in part consistently realizing these objectives. Students, faculty members, townspeople, and visitors have had and will continue to have an opportunity to participate in this endeavor which is perhaps best characterized by the name of one of its program series, the *American Adventure*, carried coast-to-coast on NBC.

Recording

During the past year, the recording laboratory of the Communication Center has produced nearly two million feet of magnetic tape recordings, and has cut over four hundred separate discs. Contents of these transcriptions have varied from simple 20-second spot announcements to 30-minute dramatic productions for national networks. The disc recording facilities have been enlarged by the addition of long playing and 45 RPM equipment. The recording laboratory is equipped to record on tape or disc, or to make transfers from tape, disc, or film, including synchronous tracks for films. It functions as a laboratory for the Department of Radio, Television, and Motion Pictures and as a service to the campus and state.

Research

The Communication Center is not primarily a research organization; however, the need is recognized for research in the mass media of communication particularly through the cooperative efforts of production experts and social scientists. In matters of research the Communication Center will cooperate closely with the University Institute for Research in Social Science, the School of Journalism, and the Department of Radio, Television, and Motion Pictures.

TELEVISION STATION WUNC-TV

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

CAREY HOYT BOSTIAN, Ph.D., *Chancellor of the University of North Carolina State College*

GORDON WILLIAMS BLACKWELL, Ph.D., *Chancellor of the Woman's College*

Directors of Television

- EARL RAYMOND WYNN, A.B., M.S., *Director of Television, University of North Carolina at Chapel Hill*
 1JOHN EARLY YOUNG, A.B., M.A., *Director of Television, University of North Carolina at Chapel Hill*
 ELMER R. OETTINGER, JR., A.B., M.A., LL.B., *Assistant Director of Television, University of North Carolina at Chapel Hill, 1958-1959*
 ROY JOSEPH JOHNSTON, B.A., M.A., *Director of Television, North Carolina State College*
 EMIL WILLIAM YOUNG, JR., *Director of Television, Woman's College*

Consolidated Personnel

- ALAN BRIDGEMAN MACINTYRE, B.E.E., M.S., *Chief Engineer*
 EDWARD JOHN GILL, *Transmitter Supervisor*
 PEARLIE MODLIN, *Transmitter and Kinescope Recording Engineer*
 ROBERT DEVER RABB, *Transmitter Engineer*
 SUSAN EATON DUNHAM, A.B., *Film Department*
 BARBARA A. MINOTT, B.F.A., *Traffic Department*

Chapel Hill Studio

- EARL RAYMOND WYNN, A.B., M.S., *Director of Television*
 1JOHN EARLY YOUNG, A.B., M.A., *Director of Television*
 ELMER R. OETTINGER, JR., A.B., M.A., LL.B., *Assistant Director of Television, 1958-1959*
 JOHN REUBEN BACON HAWES, JR., A.B., *Production Manager*
 JAMES ELLIS STUDDIFORD, B.A., *Special Projects Director*
 FRANK EARL FARROW, *Studio Engineer*
 CHARLES RUSSELL HARDMAN, *Artist and Scenic Designer*
 JOHN GRATIS CORBETT, A.B., *Production Director and News Manager*
 CARL VENTERS, JR., B.A., *Program Manager*
 JACK CARMON PENN, *Assistant Engineer*
 VERNA M. SHMAVONIAN, B.A., *Program Assistant*
 RUTH ANN FORD, *Secretary*

Programming Advisory Council

- | | |
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| SYDENHAM BENONI ALEXANDER | EDWIN CARLYLE MARKHAM |
| OLAN VICTOR COOK | DAVID GEETING MONROE |
| OLIVER KELLY CORNWELL | DONALD GENTRY TARBET |
| GEORGE FREDERICK HORNER | WESLEY H. WALLACE |
| NORVAL NEIL LUXON | REX SHELTON WINSLOW |

Television Station WUNC-TV is licensed to the University of North Carolina as a non-commercial, educational television station. It is one of thirty-three such stations in the nation and has been on the air since January 8, 1955.

1. Absent on leave, 1958-1959.

The station operates on Channel 4 with a visual effective radiated power of 100,000 watts, the highest power allowable for that channel. Its programs are received in about two-thirds of the state.

WUNC-TV is an educational service to the people of North Carolina. Its purpose, according to its charter, is "to bring the individual viewer toward informed adjustment to his society, to raise his standards of taste, to increase his range of valuable information, or to stimulate him to undertake worthwhile activities."

There are production centers on the campuses of the three institutions of the University. Programs are directed to in-school, adult, children's, and general audiences. A complete mobile production unit permits program origination from points of interest throughout a large part of the state. A kinescopic recorder permits television recordings to be made of significant programs for distribution or re-use.

Membership in the National Association of Educational Broadcasters and affiliation with the Educational Television and Radio Center enable WUNC-TV to broadcast the best available programs from other educational television stations.

The Chapel Hill Studio of WUNC-TV is operated as a part of the Communication Center. In addition to its broadcasting function, it provides a production service to the state and serves additionally as a laboratory for the Department of Radio, Television, and Motion Pictures.

THE UNIVERSITY TESTING SERVICE

WILLIAM D. PERRY, Ed.D., *Director*

JAMES W. LITTLE, M.S., *Associate Director*

PHINNEY CAMPBELL, A.B., *Administrative Assistant*

DONALD W. IRVINE, M.A., EARL J. SPENCE, M.S., *Vocational Counselors*

MILDRED F. WOODWARD, M.A., *Director, Testing Laboratory*

DOROTHY P. CANSLER, A.B., ELIZABETH M. HENDERSON, A.B., CLARA S. PATTY,
Psychometrists

PEGGY J. SAPP, *Secretary*

JULIA M. BRITT, B.S., EDWARD HARRILL, M.A., *Personnel Interns*

The University Testing Service was established in 1937 primarily for the purpose of administering and scoring tests and for test research. Its activities were greatly expanded beginning in 1945, as the result of a contract with the Veterans Administration to provide vocational guidance for veterans. Since that time, more than 10,000 veterans, many of them partially disabled, have been tested and counseled. As the result of a decision by the University to extend these same services without charge to students, vocational counseling of University students has become one of the major functions of the University Testing Service. More than 3,500 University students have

received a comprehensive battery of tests and a series of interviews with vocational counselors on the Testing Service staff. The vocational guidance program for students has been especially designed to be of maximum assistance to those students who have been unable to select a suitable academic major, who are uncertain about their vocational choice, or who are encountering serious academic difficulties.

In addition to the test scoring and test research work, which have been carried on since 1937 and have been facilitated by the use of an I.B.M. scoring machine and graphic item counter, the University Testing Service has engaged in several closely related activities. A cross indexed occupational information library is maintained for the use of University students who wish to acquire detailed information regarding job requirements, duties, rates of pay, training courses, and employment outlook. The University Testing Service is an approved agency for the administration of eight national testing programs and participates in testing projects sponsored by other universities and colleges and by such organizations as the State Department of Public Instruction, the State Education Commission, and the North Carolina College Conference.

The University Testing Service assists and works in cooperation with other departments and agencies of the University in administering, scoring, and interpreting tests; arranging for specialized testing programs; compiling and analyzing test data; and reporting the results of testing and counseling for those students who request it after completing the vocational guidance program.

READING PROGRAM

PAUL IRVINE, JR., M.A., *Director*

NANCY R. GREEN, A.B., DAVID J. IRVINE, A.B., PAUL A. PEEPLES, M.Ed., GRADY H. WHICKER, A.B., THOMAS WITHERSPOON, A.B., *Graduate Assistants*

The Reading Program offers a three-hour non-credit course in the improvement of reading and studying efficiency. All University students are eligible for admission to this course. Applications can be made during the first week of each semester at the Reading Program Office, 08 Peabody Hall. Approximately 250 students are enrolled each semester.

The Reading Program cooperates with other agencies and departments of the University in administering, scoring, and interpreting diagnostic reading tests.

THE FOLKLORE COUNCIL

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 MANLY WADE WELLMAN, *Secretary*

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The Folklore Council was organized in September, 1935, to promote the cooperation and coordination of all those interested in folklore and to encourage the collecting and preserving, the study and interpretation, the active perpetuation and dissemination of all phases of folklore. Folklore is defined by the Council as embracing all cultural aspects of folk life.

The Council represents a reorganization of The Institute of Folk Music, which was started in September, 1931, and which now becomes a division of the Council. It was found that there was a need for a comprehensive organization to unify and stimulate membership of the former Institute of Folk Music.

The Institute of Folk Music

WILTON MASON, *Director*

Advisory Board

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 PAUL GREEN
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BASCOM LAMAR LUNSFORD
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 CHARLES G. VARDELL

1. The general officers named above are members of the Executive Committee.

2. All members of the full Executive Committee are members of the Advisory Board.

FUNCTIONS OF THE INSTITUTE

As defined by the Council, folklore embraces all cultural aspects of folk life. In all lands the latter is closely allied to, and interwoven with, music in its various manifestations: as song, dance, or religious worship.

The Institute of Folk Music has varied, though related, aims:

1. The collection and preservation of indigenous material, as found in the various regions of the state.

2. The perpetuation of traditional songs, dances, and hymns through teaching traditional music in the schools and communities, as well as organizing county folk festivals and "old-time-music" conventions.

3. The scientific study, analysis, and interpretation of all the collected material.

4. The furtherance of composition based on folk music.

The Department of Music collaborates in the accomplishment of these ends, not only indirectly through its instruction in theoretical and applied music, but more particularly through courses in folk music and comparative musicology which are designed for the training of workers in this field. To further these studies, the Music Department has in addition to a rather comprehensive collection of books on folk music, a representative library of recorded folksongs from the various sections of the U. S., including those of American Indian tribes. Besides all these there are songs and ballads of the most important European countries, as well as the comprehensive collection of Ethnic music of Africa, Asia, and the Pacific Isles, recently issued by Columbia Recording Company.

INSTITUTE OF GOVERNMENT

ALBERT COATES, A.B., LL.B., *Director of the Institute of Government and Professor of Law*

VERNON LELAND BOUNDS, LL.B., *Assistant Director of the Institute of Government and Professor of Public Law and Government*

GEORGE HYNDMAN ESSER, JR., B.S., LL.B., *Assistant Director of the Institute of Government and Professor of Public Law and Government*

PHILIP PALMER GREEN, JR., A.B., LL.B., *Assistant Director of the Institute of Government and Professor of Public Law and Government*

HENRY WILKINS LEWIS, A.B., LL.B., *Assistant Director of the Institute of Government and Professor of Public Law and Government*

JOHN ALEXANDER MCMAHON, A.B., LL.B., *Assistant Director of the Institute of Government and Professor of Public Law and Government*

CLYDE LOWELL BALL, B.S., A.M., LL.B., *Assistant Director of the Institute of Government and Associate Professor of Public Law and Government*

MILTON SYDNEY HEATH, JR., A.B., LL.B., *Assistant Director of the Institute of Government and Associate Professor of Public Law and Government*

- RODDEY MILLER LIGON, JR., S.B., J.D., *Assistant Director of the Institute of Government and Associate Professor of Public Law and Government*
- ROY GRIFFITH HALL, JR., A.B., J.D., *Assistant Director of the Institute of Government and Assistant Professor of Public Law and Government*
- JOSEPH PLESS HENNESSEE, A.B., J.D., *Assistant Director of the Institute of Government and Assistant Professor Public Law and Government*
- JOHN ROBERT MONTGOMERY, JR., B.S., J.D., *Assistant Director of the Institute of Government and Assistant Professor of Public Law and Government*
- JOHN LASSITER SANDERS, A.B., J.D., *Assistant Director of the Institute of Government and Assistant Professor of Public Law and Government*
- ROYAL GRAHAM SHANNONHOUSE, A.B., J.D., *Assistant Director of the Institute of Government and Assistant Professor of Public Law and Government*
- MAURICE ALEXANDER BIGGS, JR., B.A., LL.B., *Assistant Director of the Institute of Government*
- DAVID SAVAGE EVANS, A.B., LL.B., *Assistant Director of the Institute of Government*
- NEAL MILLS FORNEY, JR., A.B., *Assistant Director of the Institute of Government*
- DONALD BALES HAYMAN, A.B., A.M., *Assistant Director of the Institute of Government*
- JAMES ALBERT HOUSE, JR., A.B., J.D., *Assistant Director of the Institute of Government*
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- WARREN JAKE WICKER, A.B., A.M., *Assistant Director of the Institute of Government*
- RUTH LOWENS MACE, A.B., B.S., M.R.P., *Research Associate in Public Law and Government*
- CATHERINE MARIE MAYBURY, A.B., M.S. in L.S., *Librarian, Institute of Government*

The Institute of Government grew out of the classroom of a professor in the University of North Carolina in the 1920's. It developed into a program of action supported by city, county, state, and federal officials in North Carolina during the 1930's. It became an integral part of the structure of the greater University of North Carolina in January, 1942.

The Institute of Government unites public officials, private citizens, and students and teachers of civics and government in a systematic efforts to meet definite and practical needs in North Carolina.

(1) It seeks to coordinate the efforts and activities of city, county, state, and federal officials who have been working for one hundred and fifty years on the same problems, for the same people, in the same territory, in overlapping governmental units, without coming together in systematic and continued cooperative activity—in the effort to eliminate needless duplication, friction, and waste.

(2) It seeks to bridge the gap between outgoing and incoming public officials at the end of their two- or four-year terms by organizing and transmitting our steadily accumulating governmental experience to successive generations of public officials—in the effort to cut down the lost time, lost motion, and lost money involved in a rotating governmental personnel.

(3) It seeks to collect and correlate for each group of public officials the laws governing their powers and duties now scattered through a multiplicity of books to the point of practical inaccessibility in constitutional provisions, legislative enactments (including public-local and private laws), municipal ordinances, and court decisions—in the effort to make them conveniently available for practical use.

(4) It seeks to collect and compare the different methods of doing similar things arising out of the initiative and resourcefulness of officials in a hundred county courthouses, three hundred city halls, and scores of state departments and federal agencies—in the effort to raise the standards of governmental performance by lifting the poorest practices to the level of the best.

(5) It seeks to bridge the gap between government as it is taught in schools and as it is practiced in city halls, county courthouses, state departments, and federal agencies.

(6) It seeks to provide the machinery for putting the people in touch with their government and keeping them in touch with it.

(7) It seeks to build a demonstration laboratory and clearinghouse of governmental information to which successive generations of officials, citizens, and students and teachers of government may go to see demonstrated in one place the methods and practices in government they would now have to go to one hundred counties, about three hundred cities and towns, and a score or more of state departments to find—and would not find practically available for use when they had reached these sources.

The Institute of Government is working with officials and citizens and the schools to achieve the foregoing objectives through comparative studies of the structure and workings of government in the cities, counties, and state of North Carolina, by staff members going from one city hall, county courthouse, state department, and federal agency to another, collecting, comparing, and classifying the laws and practices in books and in action. It is setting forth the results of these studies in guidebooks, demonstrating them in laboratories, teaching them in training schools, keeping them up to date, and transmitting them through a clearinghouse of governmental information for officials, citizens, and teachers of civics and government in the schools.

The School of Law and the Institute of Government

The School of Law and the Institute have embarked upon a program through which the School of Law and its students will receive the benefit of the specialized experience of the members of the Institute staff. From time to time they will, as Lecturers in Law, teach significant portions of the School of Law courses which have hereto-

fore been taught by Mr. Coates—Criminal Law and Procedure, Municipal Corporations, Legislation, and Family Law. It is believed that this marks a significant development which will contribute much to the training of students for civic leadership and public office, as well as for professional competence.

The Department of Political Science and the Institute of Government

The Department of Political Science and the Institute of Government are cooperating in a program through which the Department of Political Science and its students will receive the benefit of the specialized experience of the Institute of Government and its staff. From time to time, as Lecturers in Political Science, they will teach particular courses and conduct seminars within the field of their particular competence, under the rules and regulations of the Graduate School.

The Department of Political Science believes that this marks a significant development which will contribute much to the training of its students for civic leadership and public service as well as for professional competence.

INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE

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KATHARINE JOCHER, Ph.D., *Associate Director*

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The Institute for Research in Social Science was founded in 1924 by Howard W. Odum who served as Director for the first twenty years. Its relation to the central administration of the University is similar to that of schools and major divisions of the institution.

A board of governors composed of representatives from the University administration, the social science departments, and other agencies within the University with which the Institute cooperates determines basic policies. An executive committee of eight members acts for the board between meetings. Details of administration are delegated to the Director and staff. The central office, located in the Alumni Building and in charge of an Associate Director, coordinates secretarial and clerical services, personnel policies, fiscal operations, purchasing, travel arrangements, and editing and preparation of research manuscripts for publication.

Major functions of the Institute are: (1) to encourage and stimulate research in the social sciences at the University of North Carolina and to map out a coordinated and integrated research program; (2) to serve as a center for discovering and developing personnel in social science research; (3) to serve as a center for cooperation with other agencies toward the development and testing of procedures for making social science research of more functional value.

The research staff of the Institute is drawn from the fields of anthropology, business administration, city and regional planning, economics, history, journalism, medicine, political science, psychiatry, social and clinical psychology, social work, sociology, and statistics.

Senior staff in the Institute is of two types: (1) staff members (research professors and research associates) who are engaged in research within the scope of the Institute; and (2) staff affiliates who have a semi-formal association with the Institute, as for example a consultant or a member of a research planning committee. Staff members generally have the rank of professor, associate professor, or assistant professor in the University. One-third to one-half of their time is allocated to research, with the remainder devoted to teaching.

Junior staff of the Institute consists of: (1) research fellows who are mature graduate students equipped by training and experience to carry on special research assignments usually under individual or committee direction; (2) research assistants who assist in Institute research projects or serve in staff capacities under supervision, thereby securing valuable experience and training; (3) traineeships for advanced students interested in the social aspects of mental health.

In addition, part-time arrangements are made with other individuals, usually members of the University faculty, in accordance with the research programs developed from year to year.

Regionalism and achieving an understanding of the State and the South have been dominant themes in the research program. During the past decade, however, the Institute has added a widening variety of behavioral science research financed largely by foundation funds and by federal agencies. Current research may be grouped under communication, community, complex social organization, demography, economic behavior, folk cultures, human relations in industry, land-use patterns, marriage and the family, mental health, personality, political behavior, public opinion, race relations, small group behavior, social aspects of health and medical care, southern regional and North Carolina studies, survey research, and urban studies.

The Institute provides a Small Group Laboratory with facilities for observation and a Social Science Statistical Laboratory.

Additional information and application blanks for appointment to research assistantships may be obtained by writing to the Director, Institute for Research in Social Science, The University of North Carolina, Chapel Hill, North Carolina.

INSTITUTE OF LATIN AMERICAN STUDIES

FEDERICO G. GIL, *Director; Professor of Political Science and Research Professor in the Institute for Research in Social Science*

MABEL BARRETT JONES, *Cataloguer of Latin American Materials*

DAVID G. BASILE, *Assistant Professor of Geography*

HAROLD A. BIERCK, *Professor of Latin American History*

FRANK M. DUFFEY, *Associate Professor of Spanish*

JOHN PHILIP GILLIN, *Professor of Anthropology and Research Professor in the Institute for Research in Social Science*

STURGIS E. LEAVITT, *Kenan Professor of Spanish*

LOREN C. MACKINNEY, *Professor of History*

WILLIAM WHATLEY PIERSON, *University Professor of History and Political Science*

LAWRENCE A. SHARPE, *Assistant Professor of Spanish and Portuguese*

Major functions of the Institute of Latin American Studies are: (1) to encourage and stimulate research in Latin American studies at the University; (2) to serve as an agency to provide means for cross fertilization among researchers from different disciplines, and when possible and desirable, for the synthesis of diverse personal and departmental interests in investigations; (3) to promote the exchange of scholars and students, and the establishment of close working relationships with institutions of higher learning in Latin America; (4) to serve as an agency to undertake under contract surveys or analytical studies in Latin America.

Another major activity concerns undergraduate and graduate training in the area of Latin American studies. The Institute brings together the courses relating to Latin America offered in various depart-

ments of the University. It offers an undergraduate major, which is in effect also a major in one of the recognized departments. The Institute also offers programs in Latin American studies for the master's degree (see statement in the offerings of the Department of Political Science, pp. 370).

The undergraduate program of courses is intended to provide a basis for graduate work in Spanish, history, or political science. It will be of significant value to students who wish to enter the Foreign Service of the United States or to engage in Latin American trade.

In the Latin American field the University of North Carolina has a rich collection of books, many of which were secured through grants from the Rockefeller Foundation and the Carnegie Corporation. A considerable amount of recording equipment has been secured for intensive language instruction in Spanish and Portuguese.

INSTITUTE OF STATISTICS

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President of the University of North Carolina*

WILLIAM BRANTLEY AYCOCK, B.S., A.M., J.D., *Chancellor of the University of North Carolina at Chapel Hill*

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The Institute of Statistics is a research agency of the University established in 1945 to stimulate and strengthen the University's program in statistics on all its campuses. The Institute works through departments and agencies which exist under the regular administrations since it is an inter-campus activity. Through sections organized on respective campuses, it plays a major role in assisting local administrations to create, maintain and strengthen departments, and administer grants and contracts which have had to do with statistical theory and practice. It brings distinguished scholars to the University from other centers throughout the world to do research, teaching and occasional lecturing and is instrumental in organizing summer ses-

sions and conferences. It encourages various separate statistical groups to work together for mutual benefit in teaching and research.

An Advisory Council made up of prominent leaders in business, universities, industries, public and private organizations and the professors from North Carolina and other states, advises in charting the general program of the Institute of Statistics, assists in procuring and investing supplementary funds and interprets to industry, government and others the purposes and potentialities of the Institute.

The theory and technique for obtaining knowledge by the methods of deductive inference have been the source of fruitful study for several thousand years. On the other hand, the problem of obtaining knowledge about the world in which we live by inferring general casual laws from specific observable events has received serious and concerted attention only within the present century. Research workers in all fields which demand interpretation of data began to develop methods and techniques to solve their problems. Gradually it became evident that a body of techniques and ideas stemming from a central intellectual problem was being pursued and developed in diverse fields, which demanded such techniques for progress in that special branch of known knowledge. Accordingly, some research workers began to study the problems independently of the particular application, and there developed from these researches a body of ideas which have resulted in profound and important practical and theoretical results. For example, the combinatorial mathematics needed for the design of a field trial for efficient discrimination among the yields of several varieties of cotton may also be applied in medical research and in the sampling of human populations to obtain, more quickly and cheaply than by a complete enumeration, information needed for proper government administration. The same statistical formulae have been used to infer prehistory from skull measurements and to distinguish between plants of similar species.

These are problems of statistical method. They are parts of the general theory of statistics, which has in recent years taken on a coherent unity superseding the earlier heterogeneous ideas and formulae adapted to scattered specific needs. The theory of statistics, as now understood, includes not merely formulae and methods for combining observations and drawing inferences from them, but also the design of suitable experiments and projects for collecting data, so far as the same considerations apply to diverse fields of application. It uses a great deal of higher mathematics and rests essentially on the theory of probability. It also has relations with philosophy through the theory of inductive inference.

In Raleigh the Institute cooperates with the Department of Experimental Statistics which is organized in the School of Agriculture and which engages in much close consulting work with the Agricultural Experiment Station and Engineering School. Besides training graduate students, whose chief interest is in application of statistics to such areas, it engages in cooperative research activities with government agencies and with industry throughout the state. In addition to conducting a graduate training program and granting M.S. and Ph.D. degrees in Experimental Statistics, the department conducts the undergraduate teaching of statistics and offers a B.S. in statistics.

In Chapel Hill the Institute works with many groups. The Department of Statistics is organized within the Graduate School and is principally concerned with research in theoretical statistics and the training of students for M.A. and Ph.D. degrees. The department has research projects sponsored by the Office of Naval Research, United States Air Force and other organizations in the area of probability and statistics, which provide opportunities for graduate students to conduct research leading to the Ph.D. degree and receive stipends for their graduate study. Fellowships offered by industrial organizations are also available to students interested in the study of statistics at the advanced undergraduate and graduate level.

The Department of Biostatistics in the School of Public Health, the Social Science Statistics Laboratory, the Psychometric Laboratory, and the Survey Operations Unit are other organizations in Chapel Hill, which, together with the Institute of Statistics, engage in cooperative research activities. Through the Institute of Statistics, contact between members of the various groups is maintained and encouraged. Uniting the strengths of several departments and campuses, the Institute in its membership and staff represents a resource in statistics of great distinction.

THE WILLIAM HAYES ACKLAND MEMORIAL ART CENTER

¹JOSEPH C. SLOANE, *Director*

KENNETH NESS, *Acting Director*

MAY DAVIS HILL, *Librarian and Curator of Prints*

Dedicated on September 20, 1958, The William Hayes Ackland Memorial Art Center fulfills a long-held need for consolidation and expansion of art study and exhibition facilities. The late Mr. Ackland's bequest and project has provided means for a study center and galleries with unusual potentials.

1. Effective spring semester, 1959.

Three galleries are now available for changing exhibits and for an ultimate study collection which will be continually extended. A fourth gallery houses the Joseph Palmer Knapp Collection of antique furniture.

The art library, reading room, stack room, and other study and research facilities adjoin lecture room and office areas. Drawing, painting, design, sculpture, and ceramics facilities are located in the several studio classrooms.

Departmental holdings include original graphics, African sculpture, black and white and color slides, the Weil Collection of photographs of Italian Renaissance art, the W. W. Fuller Collection of paintings, allocations from Federal projects (prints, paintings, and photographs), and color reproductions. A continuing gift from the National Gallery of Art, when completed, will augment the slide collection with 500 Kodachromes of the works in the National Gallery. The Burton Emmett Collection of prints and graphics and the W. P. Jacocks Collection are important recent additions.

Among other department-sponsored activities, a public evening sketch class and a rental collection of color reproductions are continued.

Future gallery and exhibition-related projects include musicales and other occasions.

PERSON HALL

Built in 1795 as the University Chapel, Person Hall was finished in 1797 by a gift of General Thomas Person. It was restored in 1936 by government agencies and through the efforts of the late Katherine Pendleton Arrington. Until September, 1958, Person Hall Art Gallery housed the office of the Department of Art, the art reference library and a studio classroom. The gallery offered a program of changing exhibitions.

Exhibitions, September, 1957—August, 1958, were: Rental Collection of Reproductions, September 12-24. Cape Cod Artists, October 4-27. Contemporary Sculpture, November 1-December 15. Ancient African Art (D'Arcy Galleries Collection), January 8-February 2, 1958. Original Graphics for Young Collectors (Roten Collection), February 7-25. Contemporary French Artists (Roten Collection), March 2-25. Contemporary Theatre in the United States (in cooperation with the Department of Dramatic Art and the Southeast Theatre Conference), March 27-30. Angelo Testa Designs and Textiles, April 8-May 11. U.N.C. Art Students' 22nd Annual, May 22-August 10.

With the dedication of The William Hayes Ackland Memorial Art Center, September 20, 1958, Person Hall was assigned to the Research Laboratories of Anthropology for use as a laboratory and for exhibition of anthropological and geological materials.

THE CAROLINA PLAYMAKERS

SAMUEL SELDEN,¹ *Director*

HARRY E. DAVIS, *Associate Director*

JOHN W. PARKER, *Assistant Director and Business Manager*

IRENE SMART RAINS, *Costume Director*

THOMAS REZZUTO, JR., *Technical Director*

KAI JURGENSEN,² THOMAS M. PATTERSON, FOSTER FITZ-SIMONS, RUSSELL GRAVES, *Assistant Directors*

ROBERT B. SHARPE, *Literary Adviser*

DAVID PETERSON, JAMES ARMACOST, ROBERT E. KETLER, JOHN STOCKARD, CAROLYN E.

QUINN, JOHN SNEDEN, *Assistants*

Regular work in dramatic art at the University of North Carolina was initiated by Dr. Frederick H. Koch in 1918. The same year he founded The Carolina Playmakers. The theatre building which is now their home was remodeled and dedicated to their use in 1925.

The Playmakers serve the purposes of both a laboratory organization and a community theatre. The faculty of the Department of Dramatic Art, assisted by students, is the working staff. The busy program of activities between September and June each year includes four major productions of old and modern dramas, classical and popular, and four experimental productions of new scripts, both one-act and full length. Major productions and experimental productions are given during the summer session. The acting, scenery, lighting, costuming, stage-management, as well as much of the designing and directing for these plays, are done by students, principally those enrolled in the department. During the school year the Playmakers frequently tour one of their productions through towns in North Carolina and neighboring states, and each summer a large number of students take acting and staff engagements in off-campus productions, such as *The Lost Colony*, *Unto These Hills*, *Horn in the West*, and *The Confederacy*.

Membership in the Playmakers is open to graduate and undergraduate students from all classes and divisions of the University and to citizens of the town and neighboring communities. Any person desiring membership can earn it simply by taking part, in any capacity, in the Playmakers' activities. Roles in the plays and positions on the production staffs are assigned through competition. Playmakers who

1. Resigned, January 29, 1959.

2. Absent on leave, 1958-1959.

complete a specified number of work units in at least two divisions of theatre activity are eligible to receive a mask (pin) award. Persons who do outstanding work, usually over a period of two or more years, are given a Special Award. The Roland Holt Silver Cup and the Joseph D. Feldman Award are presented to students for distinctive achievements in playwriting.

ESTABLISHED LECTURES

JAMES LOGAN GODFREY, *Chairman*

The John Calvin McNair Lectures

This lectureship was founded through a bequest by the Reverend John Calvin McNair of the Class of 1849. The series was inaugurated in 1908 by Francis H. Smith, the first in a line of eminent thinkers which has included Henry Van Dyke, Arthur Twining Hadley, John Dewey, Roscoe Pound, William Louis Poteat, Harris Elliott Kirk, Robert Andrews Millikan, George F. Thomas, Arthur H. Compton, Kirtley F. Mather, William Ernest Hocking, Edmund W. Sinnott, and Charles A. Coulson.

The plan and purpose of the lectures are stated in the will as follows: "They shall employ some able Scientific Gentleman to deliver before all the students then in attendance at said University a course of Lectures the object of which Lectures shall be to show the mutual bearing of Science and Theology upon each other and to prove the existence and attributes, as far as may be, of God from nature. The Lectures, which must be prepared by a member of some one of the Evangelic denominations of Christians, must be published within twelve months after delivery, in either pamphlet or book form."

The Weil Lectures

An unendowed lectureship on American citizenship was established by the University during the year 1914-1915. The families of Sol Weil and Henry Weil of Goldsboro later generously endowed the lectures as an annual series called the Weil Lectures on American Citizenship.

William Howard Taft delivered the first lectures. A group of distinguished world citizens has followed him, including William Bennett Munroe, Edward A. Ross, William Allen White, Charles A. Beard, Harold J. Laski, Felix Frankfurter, and Henry Wallace. Among the more recent speakers have been T. V. Smith, Richard B. Tawney, Robert M. MacIver, Eleanor Roosevelt, Edwin G. Nourse, Robert A. Taft, Zechariah Chafee, Jr., Galo Plaza, Carlos P. Romulo, and George Catlin.

THE UNIVERSITY LIBRARY

JERROLD ORNE, *University Librarian*
 OLAN VICTOR COOK, *Associate University Librarian*

The Administrative Board

JERROLD ORNE, *Chairman*

HERBERT RALPH BAER	GLEN HAYDON
RICHMOND PUGH BOND	EUGEN MERZBACHER
AVERY BERLOW COHAN	WILLIAM WHATLEY PIERSON
JOHN NATHANIEL COUCH	OSCAR KNEFLER RICE
FLETCHER MELVIN GREEN	BERTHOLD LOUIS ULLMAN

Staff Heads of Departments

EDITH E. AVERITT, *Geology-Geography Library*
 HARRY BERGHOLZ, *Chief Bibliographer*
 MYRL EBERT, *Health Affairs Library*
 EARL A. FORREST, JR., *Acquisitions*
 CHARLOTTE GEORGI, *Business Administration and Social Sciences Division*
 LOUISE M. HALL, *Humanities Division*
 HELEN B. HOGAN, *Bull's Head Bookshop*
 ERNESTINE KENNETTE, *Mathematics-Physics Library*
 ISAAC T. LITTLETON, *Interlibrary Center*
 LAWRENCE F. LONDON, *Rare Book Room*
 MARY L. LUCY, *Circulation Department*
 KEITH E. MIXTER, *Music Library*
 MARY W. OLIVER, *Law Librarian*
 JAMES W. PATTON, *Manuscripts Department*
 WILLIAM S. POWELL, *North Carolina Collection*
 WILLIAM R. PULLEN, *Assistant Librarian for Technical Processes*
 ELIZABETH J. THOMSON, *Librarian for Personnel*
 ELIZABETH TUCKER, *Chemistry Librarian*
 FRANCES L. YOCOM, *Catalogue Department*

The University Library contains over 935,000 volumes. Including manuscripts, pamphlets, maps, microfacsimiles, recordings, clippings, prints, etc., the count of holdings is approximately 4,526,299 items. Bound periodicals account for 160,000 volumes; and the rate of growth of the library averages about 40,000 volumes a year through purchase, gift, and exchange. Periodical and other serial subscriptions number about 6,000.

The Louis Round Wilson Library, situated at the south end of Polk Place facing South Building, was erected in 1929 and expanded in 1952 to provide an air-conditioned bookstack containing 511 carrels for faculty and graduate students, additional general reading rooms, faculty studies, and special facilities for rare books, manuscripts, North Caroliniana, maps, documents, the Bull's Head Bookshop, and the School of Library Science. Located on the ground floor are the Manuscripts Department, Southern Historical Collection, Rare Book Room, Photoduplication Service, Bull's Head Bookshop

(browsing, rental library, and sale of current books), Assembly Room, and Map Room. The first floor, entered directly from the front of the building, provides general service through a Reserve Book Room and the Undergraduate Library. The special collection of North Caroliniana is also on this level. The North Carolina Collection is the most complete one of its scope—housed in a beautiful reading room contiguous to the general stack. This room is flanked by the Sir Walter Raleigh Rooms furnished as in 1600, and the Early Carolina Rooms equipped as in 1740. The richness of the North Carolina Collection and its quarters bespeak the generosity of several important donors—John Sprunt Hill, Bruce Cotten, Preston Davie. The Librarian's Office is located on the first floor. Exhibition cases on this floor, as well as on the ground and second floors, display special materials or illustrate topics of current interest. The second floor contains the Humanities Division, The Business Administration and Social Sciences Division and the Technical Processing Departments, Acquisitions and Cataloguing. The Loan Desk and Card Catalogue are also on this level. The third floor houses the School of Library Science (including a departmental library). There also are thirty individual studies and numerous conference and seminar rooms.

Special Collections of importance include: the Southern Historical Collection (3,000,000 manuscripts); the North Carolina Collection (66,000 volumes and 127,000 other pieces); the Hanes Collection recording the development of the book, including 662 incunabula and some 2,000 manuscripts or other items; the Whitaker Collections of Johnson, Dickens, Cruikshank, Thackery, costume plates, Shakespeare folios; the William Henry Hoyt Collection of French History (Napoleon and his times); the Nolen Collection of city and regional planning; the Chester N. Gould Collection of Scandinavian literature and philology; the Preston Davie Collection of Raleighana, Caroliniana and early Americana; the Bruce Cotten Collections of North Caroliniana; the Archibald Henderson Collection of Materials Relating to George Bernard Shaw; the Samuel A. Tannenbaum Shakespeare Collection; the Bowman Gray Collections on World War I and II; the Burton Emmett Collection of Graphic Arts; the Thomas Wolfe Collection; together with unusual collections of American drama, dramatic manuscripts, Spanish drama, Folklore, Latin American studies, Southern literature, Romance languages, and maps.

The Library, a member of the Association of Research Libraries and the Association of Southeastern Research Libraries, has extensive bibliographical resources, including The North Carolina Union Catalogue. The libraries of the three University campuses, together with the Duke Library, have published union checklists of their holdings in certain broad fields such as science and social sciences.

Other checklists are projected. In 1955 an intercampus borrower's card for faculty and selected graduate students was inaugurated. Frequent messenger service, including truck delivery, and a cooperative acquisitions program further cement interlibrary relationships in the region. The Interlibrary Center handles all borrowing and lending services with other libraries and individuals by mail. The Library Photographic Service serves further to meet immediate needs for scarce research material.

Except for libraries of the Division of Health Affairs (Medicine, Public Health, Nursing, Dentistry, Pharmacy) and Law—which are fully accessible to the entire campus—the University Library system is under the centralized administration of the University Librarian. In addition to the rooms and collections already listed in the Louis Round Wilson Library building, the University Library includes the following professional and special libraries: Art, Botany, Chemistry, Geology-Geography, Mathematics-Physics, Music, Zoology. Staffed by non-Library personnel are two departmental collections, Institute of Government and Library Science.

THE UNIVERSITY NEWS BUREAU

ALFRED GUY IVEY, *Director*

JAKE WADE, *Director, Sports Publicity Division*

ROBERT H. BARTHOLOMEW, *Public Information Officer, Division of Health Affairs*

DELL HOYLE LITTLE, *Assistant Director*

ANN ALLMOND SMITH, *Staff Writer*

The University News Bureau is the official news distributing agency of the University of North Carolina at Chapel Hill. It is responsible for the gathering and dissemination of campus news to the several press associations, to the newspapers in North Carolina and throughout the country, to radio and television stations, and to magazines and other information media.

The main offices of the News Bureau are in Bynum Hall. The sports division, with Jake Wade in charge, is in Fetzer Field House, near Woollen Gymnasium.

In the fall of 1918 the News Bureau was established with a full-time director for the first time in the history of the University. Prior to that, news stories from Chapel Hill were sent out by the professor of journalism and student correspondents.

Four men have directed the University Bureau since 1918: Robert W. Madry, Lenoir Chambers, Louis Graves, and A. G. Ivey. Mr. Madry was the first director from 1918 to 1919, when he resigned to enter the Columbia University School of Journalism. Later he worked on newspapers in Paris and New York, and returned to be-

come director of the News Bureau in 1923, continuing in that position until his death in 1955. Lenoir Chambers, now editor of the *Norfolk Virginian-Pilot*, was director of the News Bureau from 1919 to 1921, and Louis Graves, now contributing editor of the *Chapel Hill Weekly*, was director and professor of journalism from 1921 to 1923.

The present director, A. G. Ivey, is a member of the Class of 1935, Nieman Fellow in Journalism at Harvard University (1951-52), former associate editor of the *Winston-Salem Journal* and *Sentinel* and former executive editor of the *Shelby Daily Star*. He has been director of the News Bureau since September 1, 1955.

It has always been the policy of the News Bureau to send out all significant and worthwhile news about the University, whether favorable or unfavorable. The University Administration has never imposed censorship on news from Chapel Hill. This means that the operations of the University have been an open book. The result is that the people of the state are confident that they will be informed of the day-to-day activities of their University.

THE UNIVERSITY OF NORTH CAROLINA PRESS

LAMBERT DAVIS, *Director*

PORTER COWLES, *Assistant Director*

Board of Governors

ROBERT HASLEY WETTACH, *Chairman*

WILLIAM BRANTLEY AYCOCK, *ex officio*

JAMES ARTHUR BRANCH, *ex officio*

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MILTON SYDNEY HEATH

C. HUGH HOLMAN

ROBERT BURTON HOUSE

STURGIS ELLENO LEAVITT

HUGH TALMAGE LEFLER

JOHN CHARLES MORROW, III

ARNOLD PERRY

CHARLES BASKERVILL ROBSON

CORYDON PERRY SPRUILL

RUPERT BAYLESS VANCE

LOUIS ROUND WILSON

NATHAN ANTHONY WOMACK

The University of North Carolina Press was incorporated on June 12, 1922. The objects for which it was established are (1) to publish periodicals devoted to the advancement of learning and produced at the University by or under the direction of the faculty; (2) to publish catalogues, bulletins, and other documents pertaining to the University and its various schools and departments; and (3) to promote generally, by publishing deserving works, the advancement of the arts and sciences and the development of literature.

The Press was established under the authority of the Board of Trustees of the University. It is a non-stock corporation, organized

under the laws of North Carolina, whose policies are determined by a Board of Governors appointed by the Board of Trustees and acting under the authority of the Chancellor and the President.

The Press has published approximately twenty books per annum during recent years. The Press also publishes the following periodicals: *The Journal of the Elisha Mitchell Scientific Society*; *Studies in Philology*; *The High School Journal*; *Social Forces*; *The North Carolina Law Review*; *The University of North Carolina Extension Bulletin*; *The Library Extension Publication*; *The University of North Carolina News Letter*; *The University of North Carolina Record*; and the following departmental series: *The James Sprunt Studies in History and Political Science*; *Studies in Romance Languages and Literature*; *Studies in Germanic Languages and Literature*; *Studies in Comparative Literature*; and *Studies in Business Administration*.

The Press offices are located in Bynum Hall. The following agents represent the Press outside the United States: W. S. Hall and Company, Continental Europe; Oxford University Press, books in the British Isles, India, and Pakistan; Cambridge University Press, periodicals in the British Isles; Henry M. Snyder and Company, worldwide representative, except in territories otherwise served; the Ryerson Press, Canada.

A complete list of publications issued by the Press, and seasonal catalogues of new publications, will be supplied without charge to any address on request.

THE INSTITUTE OF FISHERIES RESEARCH

ALPHONSE F. CHESTNUT, Ph.D., *Director*

CHARLES EDWIN JENNER, Ph.D., *Chairman of the Executive Committee*

Advisory Council

DEAN BUMPUS, *Woods Hole Oceanographic Institution*

ROBERT LUNZ, *Bears Bluff Laboratories*

THURLOW NELSON, *Rutgers University*

D. W. PRITCHARD, *Chesapeake Bay Institute of the Johns Hopkins University*

E. C. RANEY, *Cornell University*

WALDO SCHMITT, *Smithsonian Institution*

Executive Committee

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CECIL MORRIS

ERIC RODGERS

HARDEN FRANKLIN TAYLOR

REX SHELTON WINSLOW

Research Staff

ALPHONSE F. CHESTNUT, Ph.D., *Director and Associate Professor*

EARL EDWARD DEUBLER, JR., Ph.D., *Associate Professor*

WILLIAM EARL FAHY, Ph.D., *Associate Professor*

HUGH JUDSON PORTER, M.Sc., *Instructor*

GERALD S. POSNER, Ph.D., *Assistant Professor*

AUSTIN BEATTY WILLIAMS, Ph.D., *Associate Professor*

ROBERT ERVIN COKER, Ph.D., Sc.D., *Consultant*

HARDEN FRANKLIN TAYLOR, A.B., Sc.D., *Consultant*

The Institute of Fisheries Research was established by action of the Board of Trustees September 29, 1947. The function of the Institute is to make practical application of biology and other sciences, including economics and marketing, to the problems of the fisheries of North Carolina. It endeavors through scientific research to arrive at a better practical understanding of the conditions that impede development of the state's marine fisheries and of the principles that should govern the application of measures of conservation. The establishment of the Institute rests, then, on the belief that not only those engaged in fisheries and related industries but also the state as a whole will profit from the applications of science and economics to the problems of the fisheries and other marine resources.

It is believed that proper rules of conservation of fisheries resources are not best arrived at by mere hit-or-miss methods or by the sincerest effort to satisfy now one and now another group having special interests and necessarily limited knowledge. There is needed, as seems generally recognized, more basic knowledge concerning our resources. Facts are wanted, rather than casual theories, as to what actually governs the abundance of fishes and shellfishes, which show continual changes with decrease and increase of numbers. Understanding is wanted concerning what directs the movements of particular groups of fishes, so that desirable or undesirable kinds are here or there, from season to season and from year to year, in unpredictable fashions. This, in turn, means that more should be known about the underlying physical, chemical, and biological conditions and their changes, reflected in fluctuations of basic food supplies, salinities, temperatures, currents, stream discharges, and oceanic circulation. It is assumed also that properly conducted scientific and economic studies may be helpful in promoting efficient and more profitable practices in exploitation, processing and marketing of fishery products.

The interest of the University and the state in applications of marine biology and in fisheries began more than half a century ago with the establishment by the University of a summer laboratory at Beaufort through the Department of Biology and with active cooperation from the State Geological and Economic Survey, partial predecessors of the present Department of Conservation and Development.

This laboratory developed into the Fisheries Biological Laboratory operated by the federal government. Despite its services and potential usefulness, experience has proven that this laboratory cannot meet the full practical needs of the state.

In 1947, the University again interested itself in the problems of the fisheries. With the effective cooperation of the Department of Conservation and Development and its Division of Commercial Fisheries, it has established a laboratory for fisheries research at a favorable location near Morehead City. Its inauguration was made possible by a four-year grant from the Knapp Foundation, Inc., of New York, conditioned on matching contributions from the state. The grant from the Knapp Foundation was "A tribute to Joseph P. Knapp's lifelong interest in the betterment of mankind." The matching on the part of the state for the first biennium was accomplished by giving the Institute direction of an appropriation made by the legislature of 1947 for a survey of off-shore shrimping grounds and a part of the appropriation from the same legislature for the rehabilitation of the oyster and other shellfish. The cooperation of the Commission for the Survey of Shrimping Grounds and of those concerned with the oyster industry made this possible. The legislature of 1949 made an appropriation through the Department of Conservation and Development, to match the grant to the University from the Knapp Foundation for the biennium 1949-1951. Since 1951 the legislature has made appropriations directly to the University for the operation of the Institute.

Meanwhile, with financial aid from an alumnus, Mr. George Lurcy of New York, matched by a grant from the General Education Board, there had been undertaken a Survey of Marine Fisheries of North Carolina. The report of the Survey was published in February, 1951.

The Institute will contribute to the educational program of the University by offering practical training and guidance for graduate students.

Courses in hydrobiology and fishery science are described in Part IV of this catalogue under Department of Zoology (page 429).

RESEARCH LABORATORIES OF ANTHROPOLOGY

JOFFRE L. COE, *Director*
 HERBERT SHELLANS, *Assistant*
 HELEN WEAVER, *Secretary*
 CAROLYN CORBIN, *Assistant*

C. C. CRITTENDEN, *ex officio*
 HARRY T. DAVIS, *ex officio*
 THOMAS W. MORSE, *ex officio*
 J. EDISON ADAMS

CORNELIUS O. CATHEY
 GUY B. JOHNSON
 ARNOLD K. KING
 ROBERT W. LINKER
 WILLIAM A. WHITE

The Research Laboratories of Anthropology were established October 7, 1939, for the purpose of conducting basic anthropological studies in the field of archaeology, ethnography, physical anthropology, and other related fields. Its program is essentially inter-departmental and serves to coordinate these activities among other organizations. It also serves as a central repository and research center. Its present collection exceeds 1,000,000 items and is considered to be one of the primary sources for archaeological research in the South. The offices and processing laboratories are situated in Person Hall, together with a series of exhibits dealing with anthropology and related earth sciences.

 THE MOREHEAD PLANETARIUM

Gift of John Motley Morehead, Class of 1891, the building contains the Genevieve B. Morehead Memorial Rotunda, Faculty Lounge, University Room, and a dining room for official functions of the University. Among the paintings from the Morehead collection permanently hung in the Rotunda are Rembrandt's portrait of his sister and many valuable works by other masters. Two large art galleries flanking the Rotunda are used for temporary exhibitions.

The scientific portion of the building contains the sixth Zeiss Planetarium installation in the Western Hemisphere, the first one in the world to be owned and operated by a university. A realistic reproduction of the sky of thousands of years past or hence as seen from any position on earth is produced on the sixty-eight-foot perforated stainless steel dome of the chamber which seats 490 visitors in concentric circular rows. Spectacular productions given since opening on May 10, 1949, have included "Star of Bethlehem," "Birth and Death of the Earth," "Easter, the Awakening," and many planetary "Space Trips." Public demonstrations are given every evening in the week at 8:30; on Saturdays at 11:00 and 3:00; Sundays at 3:00 and 4:00. Special presentations for school children are given on Wednesdays, Thursdays, and Fridays at 11:00 A.M. and 1:00 P.M. by reservation. A

new program is presented each four or five weeks. The Planetarium is used also for University classes in astronomy and navigation.

Associated with the Planetarium are two large scientific exhibit rooms and one of only two thirty-five foot orreries of the solar system in the world. In the first ten years of operation, 950,000 visitors attended the Planetarium presentations.

In the Planetarium garden, twenty-five varieties of roses and many other flowers and shrubs now form a beautiful setting for the most modern example of that most ancient of astronomical instruments, the Sundial.

The giant Sundial, largest of its kind in the world, is another gift to the people of North Carolina from John Motley Morehead—University alumnus, industrialist, philanthropist, and founder of the scholarships that bear his name.

THE DEVELOPMENT COUNCIL

The Development Council was organized in June, 1952. It is made up of a volunteer group of distinguished business and professional leaders of the state who are cooperating with the administration, trustees, faculty, alumni, and friends in planning and carrying out a continuous development program to serve the University and the state. Among its other duties, the Council is vitally interested in the coordination of the efforts of the foundations listed below. Charles M. Shaffer, Chapel Hill, North Carolina, is director.

FOUNDATIONS

Alumni Annual Giving

Annual giving was organized in September, 1952, to give every alumnus the opportunity of annually assisting the University by contributing to an unrestricted fund. Inquiries should be sent to the director, Tom Bost, Jr., Alumni Annual Giving, Chapel Hill, North Carolina.

The Bequest Program

Initiated in September, 1955, the Bequest Program is designed to inform alumni and friends of the opportunities existing at the University for purposeful and enduring memorials. Development Office and the University officials are available to assist interested donors in creating a thoughtful and mutually beneficial bequest. Inquiries may be directed to Charles M. Shaffer, Development Office, Chapel Hill, North Carolina.

The Broadcasting Foundation of North Carolina, Inc.

The Broadcasting Foundation was organized in 1955 “. . . to sponsor, promote, encourage, support and assist, financially and otherwise the advancement of education in the fields of radio and television at or through the Department of Radio, Television, and Motion Pictures of the University of North Carolina at Chapel Hill.” Inquiries should be directed to Earl Wynn, Chairman of the Radio, Television, and Motion Pictures Department, Chapel Hill, North Carolina.

The Business Foundation of North Carolina, Inc.

The Business Foundation was established in July, 1946. Its articles of incorporation provided: “The objects and purposes for which the corporation is formed are to aid and promote, by financial assistance and otherwise, all types of education, service and research for business and industry at or through the School of Business Administration and other departments of the University of North Carolina. . . .” Inquiries should be directed to Dean Maurice W. Lee, School of Business Administration, Chapel Hill, North Carolina.

The Dental Foundation of North Carolina, Inc.

The Dental Foundation, incorporated under the laws of North Carolina in 1950, is dedicated to the achievement of optimum dental and general health for all the citizens of North Carolina. It is designed specifically to aid educational and research programs, including student loans, scholarships, and the library, of the School of Dentistry of the University of North Carolina. Inquiries should be directed to Dean John C. Brauer, School of Dentistry, Chapel Hill, North Carolina.

The Educational Foundation, Inc.

The Educational Foundation was organized in 1939 “to provide grants-in-aid to worthy and needy students participating in athletics.” All grants-in-aid are awarded through the University Scholarship Committee. Inquiries should be directed to the executive secretary, Ernest W. Williamson, Woollen Gymnasium, Chapel Hill, North Carolina.

The Friends of the Library

The Friends of the Library was organized in 1932 “to promote the interests of the Library of the University of North Carolina at Chapel Hill, including the libraries of its schools and departments,

by every means at the command of the organization or of its individual members." Inquiries should be directed to Dr. Jerrold Orne, Director of Libraries, University Library, Chapel Hill, North Carolina.

The School of Journalism Foundation of North Carolina, Inc.

The Journalism Foundation was chartered in 1949 "to sponsor, promote, . . . the advancement of education in the field of journalism at or through the School of Journalism of the University of North Carolina at Chapel Hill . . ." Inquiries should be directed to Dean Norval Neil Luxon, School of Journalism, Chapel Hill, North Carolina.

Law Alumni Association of the University of North Carolina, Inc.

The Law Alumni Association of the University of North Carolina, Inc., was incorporated in 1952. Its broad purposes are: "To sustain among the alumni high, ethical principles in the practice of law and otherwise to benefit the profession; to encourage the continuing development of legal education; to provide for scholarships and other aid to students; to provide prizes for excellence in student endeavors and recognition for alumni for outstanding achievements." Inquiries should be directed to Dean Henry Brandis, School of Law, Chapel Hill, North Carolina.

The Medical Foundation of North Carolina, Inc.

The Medical Foundation, incorporated in 1949, has as its over-all objective that of aiding in medical education, medical research, and medical services to the people of North Carolina through the facilities of the University of North Carolina at Chapel Hill, and specifically through its School of Medicine and the adjunct teaching hospital. Inquiries should be directed to Dean W. R. Berryhill, School of Medicine, Chapel Hill, North Carolina.

The North Carolina Pharmaceutical Research Foundation, Inc.

The North Carolina Pharmaceutical Research Foundation, Inc., was organized in 1946 "to foster and promote . . . education and research in the School of Pharmacy of the University of North Carolina and in the State . . ." Business is transacted chiefly through the office of Dean E. A. Brecht, School of Pharmacy, Drawer 629, Chapel Hill, North Carolina.



Part Six

DEGREES CONFERRED

DEGREES CONFERRED AUGUST 23, 1957

BACHELOR OF ARTS

Joseph Avery Adams	David Savage Evans	Emmett Garrison Nesbit
Patricia Louise Aldridge	Norman Luther File	John Richard Newton
Charles Eugene Allen	Larry Grant Ford	John Rainey Parker, Jr.
James McMillan Allison	William Badham Gardner	Ivey Benjamin Peele
Jerry Monroe Arledge	Susan Rosalie Gichner	Linwood Thomas Peoples
Grant Wesley Armstrong	Carolyn Park Good	Robert Osborne Pickard
Walter Edward Barbee	Franklin Vail Gray	Bernard Bailey Plemmons
Pebbley Ernest Barrow	Everette Nathan Hale, Jr.	Chalmers Whithart Poston
Fred Oliver Bates, Jr.	Norman Curtis Hall	Mary Allen Poteat
James Tully Beatty	Thomas LeRoy Hannaford, Jr.	Sanford Scott Price
Darwin Little Bell	Nola Jean Hatten	Nella Grimes Purrington
Donald Lee Boone	William Ernest Heck	Howard Monroe Roll
John Butler Bridger	Harold Dean Henline	Leonard Robert Rosenbluth
Donald Emerson Bullard	Charles B. C. Holt	Louis Howard Rosenstock
Robert Lewis Carswell	Glendale Bowen Holt	Aubrey Arwood Rothrock, Jr.
William Lawrence Cheek	Caroline Fitzgerald Hume	Anne Wolfley Ruffin
Jack Everett Claiborne	Edward Reid Hunter	Jen MacKey Schenck
Daniel Eason Clark	Josephine Christison Hunter	Pauline Clarenbach Shook
Robert Grizzard Cooney, Jr.	Walter Jones Huntley	Edward Malcolm Sloan, Jr.
Jackie Finley Cooper, Jr.	Bryson Coy Ibrahim	(with Honors in RTVMP)
(with Honors in Religion)	Norman Bright Kelley	Alvin Ward Smith
Frances Abee Corley	Robert Marvin Kriegsman	Margaret Ellen Summerell
Mary-Elizabeth Curtis	Roney William Lamm	Robert Holton Thornton
Buddy Arnold Daggerhart	Jarvis Harding Latham	Bobby Moton Wagner
Milton Pierre Dawson	Rebecca Josephine Swain Leggett	John Francis Warner
Robert Howard Dillard	Robert Arlen Linn	Alice Fay Westbrook
Patricia Ann Dillon	Jimmy Lewis Love	(with Honors in Political Science)
Geraldine Drew Dixon	Phillip Stratton Malone, Jr.	Johnny Lee Whitley
Guy Paul Dixon	Benson Rhew Mangum	Bryant Kelly Wicker
Dickson Brown Dunlap	John Chapman Michie	Clarence Ray Wiggins
Carl Hanna Durham	Evan Shelby Miller	James Norris Wilfert, Jr.
Joy Frances Earp	Harold Allan Mitchell	Clarence Thomas Williford, Jr.
Cortland Hoach Edwards, II	Alex R. Morrison	William Francis Young
Sylvia Snoke Evans	David Mundy	Robert Francis Young

BACHELOR OF SCIENCE IN BACTERIOLOGY

William Robert Bibb

BACHELOR OF SCIENCE IN CHEMISTRY

George Franklin Hunt

William Ernest Trent, II

BACHELOR OF SCIENCE IN DENTISTRY

Carl Dann, III

BACHELOR OF SCIENCE IN GEOLOGY

Robert Wheless Edwards

BACHELOR OF SCIENCE IN INDUSTRIAL RELATIONS

John Thomen Barto
Archibald Roger Brown

William Van Dyke Phillips
Harry Jackson Speir, Jr.

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Mary Linda Garriss

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Grace Annette Boney	Virginia B. Wilson Golding	Twyla Schmucker Stroup
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Walter Nicholas Collison, Jr.	Paul McGougan Maultsby, Jr.	Bobby Gene Wiggs
Mary Jo Craddock	Joseph Britt McGinn	Sebelia Inez Williams
Lois Naefach Glasser	Roy Lee Myers	Timothy Wood
	Jean Lewis Peay	

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Linda Lee Cleveland

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Jean Gray Sorrell	

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Lucy Beatrice Courtenay	Vera Hughes Stallings
Frances Cherry Cartwright Parker	

BACHELOR OF SCIENCE IN NURSING

Anna Thaxton Haney	Patricia Ball King
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Bobby Gerald Beam	Rea Hinson, Jr.	John Richardson Schenck, Jr.
Peter George Bougades	Wayne Briggs Honeycutt	Shelley Commodore Settlemyre, Jr.
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Herman Bunch, Jr.	Ralph Dewey Johnson	William Allison Sherrill
Henry Clinton Burbridge	Robert Leland Lindsey, Jr.	James Egbert Smith
Robert Gaston Burgin, Jr.	Norris Wilford Link, Jr.	Thomas Arthur Smoot, III
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Edwin Wood Fuller, Jr.	John Ormond Moler	Gerald Killian Worsley
Luther Snyder Garrison	William Urban Partington	Panos Andrew Yeapanis
Robert Edwin Gesoff	Robert Stewart Patterson	Charles Spurgeon Young, Jr.
William London Godwin	Alfred Marvin Perrin	

BACHELOR OF SCIENCE IN LIBRARY SCIENCE

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Georgianna Hayes Niven	Theodore Edison Perkins	Alice Allene Wall

CERTIFICATE IN PUBLIC HEALTH NURSING

Lynett Anna Benvegar
Inez Rambo Constant
Barbara Ellen Crane (January 31, 1957)
Doris Ada David
Elizabeth A. Elterich
Elena Garcia
Emma Elizabeth Gardner
Alma B. Godsey
Janie Marie Kuemmerer
Brilla Mallicoat

Wanda Virginia McDonald
Frances E. Miller (January 31, 1957)
Anne Ramsey Patterson
Aileen Plemmons (January 31, 1957)
Ana Beatrice Rodriguez (June 3, 1957)
Shirley Mae Shell
Ruby Alfreda Cox Spell
Lucille Broussard Tucker
Elsa R. Weiss

CERTIFICATE IN PUBLIC HEALTH

Vu Dinh Dinh (June 3, 1957)
Piyasena Gannewatte (June 3, 1957)

Kyaw Myint (June 3, 1957)
Elena Quesada (June 3, 1957)

BACHELOR OF LAWS

Cary Walter Allen
Joseph Russell Cruciani
John Lewis Davidson
Tyson Yates Dobson, Jr.

Harold Conrad Ferree
James Carroll Fox (with Honors)
Louis Knox Newton
William Kendrick Rhodes, III

DOCTOR OF LAW

Joseph Duane Gilliam

Robert Bryant Midgett

DOCTOR OF MEDICINE

Joel Dewitt Conner

Helen Blanche Hutchins

MASTER OF PUBLIC HEALTH

Elizabeth Mary Cassutt
James Garfield Foster, Jr.
Shelby Johnson

Julia J. Kula
Rose Ann Langham

Mary Johanna Pfeffer
Nexy Amelia Quinones-Toyos

MASTER OF SCIENCE IN PUBLIC HEALTH

Corinne Evelyn Lunn

Dorothy Louise Redfern

MASTER OF SCIENCE IN SANITARY ENGINEERING

Juan Manuel Islas Rios

MASTER OF SOCIAL WORK

Benjamin Richard Carpenter

Doris Gertrude Lopp

MASTER OF EDUCATION

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John William Alwood
Mildred Davis Bell
William Patterson Branch
James P. Brown
Patty Jordan Bynum
Christopher A. Carpenter
Madeline Mapp Carswell
Jack Edward Chatham
Sarah Elizabeth Cooper
Glenn Leigh Cox
Faye Marie Davis
William Franklin Davis
Doris Cockerham Dunlop
David Wallace Elliott
Wilbert Osborne Fields, Jr.
Robert Mitchell Forster
Robert Baxter Gantt
Julia Mae Graham
Helen Houston Hawfield
Cameron Wilton Hawkins
Robert Raymond Hickman
Evelyn Shaid Himelick
Charles Milton Hodgins
Kenneth Donald Holshouser
Ortis Honeycutt, Jr.

Dixie Poe Huske
Margaret Helen Ingram
Elizabeth Ann Jacks
Edward Young Jaynes
Jerry Jerome Johnson
Trelonnie Arthurway Jordan, Jr.
Jay Crowther Kline, Jr.
Stephen Joseph Kosilla
William Harry Labenberg
Calvin Lee Lane
Julia Mae Lawrence
William Lee Livengood
Mary Jordan Long
Francis Herbert Madigan
Emma Maxwell McCall
Thomas Culbreth McCall
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John Malone Miller, Jr.
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Winnie Davis Moore
Thomas A. O'Neal
Harold Kenneth Overcash
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Francis Pleasants, Jr.

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Annie Cordell Puett
Samuel Salvadore Ranzino
Charles Frederick Rierson, Jr.
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Rachel Jeanette Sarbaugh
Ernest William Schwarz
Richard Louis Seago
Thomas Edward Sibley
Stella Ruth Starr
Hattie Ellice Lewis Stell
Martha Jean Stevens
John Wesley Stewart, Jr.
John Harvey Stratton, Jr.
Raiford E. Sumner
Gerald David Thomas
Mark Felton Tinkham
Little John Trott, Jr.
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Frances Morgan Turpin
Jesse Malden Vuncannon
Louise Combs Wall
William Wray Ward, Jr.
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James Fred Young

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Marshall Banks Corl

John Watt Girard, Jr.
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Elizabeth Graves deCharms

Joan Davis Eaton
Grace Betts Farrior

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William Kilbourne Davis
Urban Haggerson Moss

Robert Louis Wilson
James Arthur Wright

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Margaret Ann Barnard

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Spurgeon Whitfield Baldwin, Jr.
Elizabeth Anne Barnes
John Holcombe Bedenbaugh
Ines Genova Belleza
David James Burrows
Martha Jean Burton
Joan Sacknitz Carver
Lessie Mallard Casey
Nancy Julia Christ
John Allen Crittenden
Mary Alice Dalrymple
LeRoy Joseph Dare
Barbara June Donnell

Cornelia Atkins Edwards
Edward Roy Epperson
John Rose Faust
Paul Barry Fiddleman
John L. Grant
Robert Auburn Hall, Jr.
Frances Lucille Horne
Laila Spiro Khury
Henrietta Laing
George Hart Lawrence, II
Maurice Roger Legris
Bonny Morgan Lewis
Thomas Joseph Lippert
Alexander Bratton McFadden

James Houston Montgomery
Peter Blaisdell O'Sullivan
Lennard Jay Pepper
James Worrell Pruett
Christopher M. Reynolds
Robert Paul Schwab
Lynda Joan Vestal
Alexander Edward Viner
Lester Austin Webb
Dorothy Jane Wellborn
Helen Caroline Wild
Jack Hamilton Wilson
Kee Chun Yoo

MASTER OF SCIENCE

Glaydis Marie Basinger
Charles Laroy Hilton

Corazon Fajardo Ramirez
Barbara Mallard Thomas

Woodrow Wilson Tingle

DOCTOR OF EDUCATION

Lloyd Grey Lowder, *Education*

Thesis: The Critical Tasks in the Area of Instruction and Curriculum Development for North Carolina Public School Administrations

DOCTOR OF PHILOSOPHY

Jean Stacy Adams, *Psychology*

Thesis: A Study of the Perception of Surface Slant

Richard Leston Carter, *Statistics*

Thesis: New Designs for the Exploration of Response Surfaces

John Cazin, Jr., *Bacteriology*

Thesis: Antigenic Studies of *Histoplasma Capsulatum*

Fogle Chandler Clark, *Psychology*

Thesis: The Influence of Deprivation Level and Frequency of Reinforcement on Variable Interval Responding

James Edward Engel, *Germanic Languages*

Thesis: A Reappraisal of Schernberg's *Spiel Von Frau Jutten*

Philip Rex Ferguson, *Chemistry*

Thesis: Studies in the Preparation of 1, 1', 6-Trisubstituted Biphenyles

Nicholas George Fotion, *Philosophy*

Thesis: Descriptive Versus Committive Analysis

John Edmond Gonzales, *History*

Thesis: The Public Career of Henry Stuart Foote (1804-1880)

Henry Allen Latané, *Economics*

Thesis: Rational Decision Making in Portfolio Management

Wilson Ellis Meaders, Jr., *Psychology*

Thesis: Real Similarity and Interpersonal Perception

Charles Edward Miller, *Botany*

Thesis: Morphology, Cytology and Life History of *Sorosphaera Veronicae* and *Ligniera Verrucosa*

William Edgar Morris, *English*

Thesis: The Seventeenth-Century English Funeral Sermon as a Literary Form

James F. Muldowney, S.J., *Sociology and Anthropology*

Thesis: Desegregation in Public Education: Selected Aspects of Social Change

Donald Austin Olewine, *Physiology*

Thesis: Studies on the Excretory Effects of Diuretics in Adrenalectomized Rats

Brank Proffitt, *Education*

Thesis: A Study of Critical Tasks and Implications for Improving Training of North Carolina School Superintendents in School Finance and Business Management

Isaac Newton Reynolds, *Business Administration*

Thesis: The Impact of the Choice of Base and Method of Amortization of Long-Term Cost on Financial and Other Business Policies

Albert Schaffer, *Sociology and Anthropology*

Thesis: The Social Organization of a Rural Community in Transition

Dorothy Dickey Schottelius, *Biochemistry*

Thesis: Studies on Deoxyribonucleoprotein

Ching Sheng Shen, *Economics*

Thesis: Theory of Built-in Flexibility: A Study of the Built-in Flexibility of the North Carolina Individual Income Tax and the Prediction of North Carolina Individual Income Tax Yield

Frances Ernestine Silliman, *Botany*

Thesis: *Chamaelirium Luteum* (L.) Gray: A Biological Study

Robert David Ward, *History*

Thesis: The Movement for Universal Military Training in the United States, 1942-1952

Kenneth Rudge Wilson-Jones, *Romance Languages*

Thesis: Attitude of French Philosophes Toward the Middle Ages

DEGREES CONFERRED JANUARY 30, 1958

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Charles Hall Ashford, Jr.	John Barnabas Dixon	William Paul Margulies
Edward Orrick Bagley	Alfred Winslow Dodge, Jr.	Berry Daniel Marshburn, Jr.
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Robert Walters Bortner	Joan Loudon Haley	Mary Anne Nelson
Mary Ann Braswell	Edward Ulysses Hallford, Jr.	Max Alfred Newber, Jr.
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John Kerr Campbell	Leila Mary K. Ibrahim	Marshall Hall Roberts, Jr.
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William Adams Darden	Harlee Wingate Lyon	Rylan Campbell Weisner
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Margaret Bellamy Beam
Peter Julius Beenen
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William Ray ElamDana Tune Fryer
Fredrice Trull Herring
Mary Waldo House
Mary Elizabeth Killian
Donald Joseph Lear
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Elizabeth Anne MeloyClaudia Ann Milham
Patsy Ann Foust Miller
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Violet Puckett Ponder
Mary Lois Rucker
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 Chalmers Lanier Glenn
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 Roger Lane Hester, Jr.
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Neill Kirby McMillan
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 William Walker Swink
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Claire Natalie Moureau

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Wanda Virginia McDonald

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Henry Harris Joel Isaacson

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Efraim Morales-Alban
Shirley F. Weiss

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Marion Lee Ralls, Jr.

LICENTIATE IN DRAMATIC ART

Dolores May Abrams

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Peter Kudrik

MASTER OF ARTS IN COMMUNICATION

Charles Philip Johnston

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Lillian Summers

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Marshall Deshazo Norman
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James Bowman Poteat
James Mikell Robertson, III

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Josefine Verdoner
Aubrey Willis Williams, Jr.
William Thomas Wolf

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Amoret Moore Bell
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William Stuart Bost, Jr.
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Charles Harwood Bowman, Jr.
Sidney Smith Bradfield

Sidney Preston Bradsher
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(with Honors in History)
Herman Harrison Braxton, Jr.
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Dwight Elam Brown
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Gabriel Paul Carr, Jr.
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Donald Malloy Carriker
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Linda Lou Chappell
William Joseph Chesnutt

Wayne Seagroves Chester
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Katherine Keith Coe
Nancy Marie Collins
Jane Dicks Connelly
Donald Davis Cooke
Belle Hamilton Corey
Kathleen Lee Corr
Lucie Bassett Crossland
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Robert Joseph Cunningham
William Grady Cunningham
Lawrence McGilbra Cutchin
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Vartan Ambar Davidian, Jr.
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Chester Clark Davis
Gus Louis Davis
Oscar Swift Davis
Warren Thomas Davis, III
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Carolyn Dennis
Paul McAuley Dickens
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Harry Randall Doshier
Dale Walter Doss
Elizabeth Lloyd Dougherty
Dewitt Pierce Dowdle, Jr.

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 Claude Wallace Drake, Jr.
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 Haywood Edmundson, IV
 Alice Seely Eller
 Harry LaCoste Ellerbe, Jr.
 Eli Nachamson Evans
 Thomas Goodwin Farrell
 Darlyl Farrington
 Florence Fearrington
 Eugene Harris Felton
 Charlotte Jean Ferrell
 Mary Vann Finley
 Mary Jane Fisher
 Wiley Vick Fisher, Jr.
 Stauber Miner Flynt
 Neal Forney
 Martha Lynn Fowler
 Charles Sugg Fox
 Ronald Ernest Fox
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 James Edgar Gay, III
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 Paxson Biddulph Glenn
 Rowland Daley Goff, Jr.
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 (with Honors in English)
 Nancy Watts Graham
 Eddie Roger Green
 Irvine Reid Stirling Haig, II
 Robert Phillip Haire
 Karen Barbara Hansen
 Lucy Darlene Hardin
 Donald Lee Hardison
 James Geraty Harrison, Jr.
 Henry Gerard Hartzog, III
 Ed Ronald Harwood
 Roberta Ashby Hastings
 Johnny Green Hayes
 John Potter Hazzard, IV
 William Raymond Heath
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 Pieter Lowe Hogaboom
 Adelaide Lucinda Holderness
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 Graham Davis Holding
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 James Houghton Holmes
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 Louis Phillip Hornthal, Jr.
 John Manley Horton
 Edward Lee House, Jr.
 James Woolard Howard
 Sarah Kincannon Hudson
 Betty Carolyn Huffman
 (with Honors in
 Political Science)
 Eugene William Huguelet
 Robert Franklin Humphrey, II
 Noel McKay Hurley
 Thomas Hoke Huss
 Carter Dalton Ingram
 Ann Carroll Inman
 Susan Jane Inman
 Don Ferrell Jackson
 Alice Jane Johnson
 Donald Gene Johnson
 Ellen Keith Johnson
 Elmer David Johnson
 John Milton Johnson
 Lawton Walker Johnson
 William Holmes Johnson
 Raymond Alonzo Jolly, Jr.
 Jack Marshall Jones, Jr.
 James Harold Jones
 Roger Conrad Jones
 Talmage Lloyd Jones, Jr.
 Frederick Albert Kalil
 George Thales Kaloyannides
 William David Kane
 Norman Donald Kantor
 Donna Patton Kelly
 Donald Court Kerby
 John Hosea Kerr, III
 Carl Sutton Killingsworth, Jr.
 Hannah Boone Kirby
 Margareta Kirschner
 Joseph Frank Koster, Jr.
 Phyllis Elliott Krafft
 Robert Lydon Kuhns
 John Thomas Langley
 Robert Burgess Lassiter
 Daniel Philmon Lawing
 Laradel Lawrence
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 Patrick Jackson Leonard
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 Herbert Hoover Liverman
 John Otis Lowery, Jr.
 Robert Ernest Lowry
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 Shirley Ann Madden
 Barbara Ward Madison
 Ward Napier Madison, Jr.
 Telfair Mahaffy
 Archibald Kelly Maness, Jr.
 John Daughtry Marriott
 Maria Merefefe Martoccia
 Anna Virginia Massengill
 Herman Edward Massengill, Jr.
 Phyllis Ann Maultsby
 Charles Raysor May, III
 Gerald Mack Mayo
 David Lawrence McCall
 Douglas Samuel McCall
 James Robert McCartney, III
 Elizabeth Parrish McCord
 Marcia Jo McCord
 Elizabeth Susan McCutchin
 Eugene Marvin McDaniel, Jr.
 Millard Raymond McDonald
 William Allen McGee
 Edith White MacKinnon
 Carl Allan MacPherson
 Holland McSwain, Jr.
 Nancy Amanda Meiggs
 James Samuel Merritt, Jr.
 Nancy Macys Milan
 Edward James Miller
 Harvey H. Miller, Jr.
 Marianna Scofield Miller
 Robert Nichols Miller
 Howard Reid Moble, Jr.
 John Laughlin Monroe
 Barbara Jean Moore
 Carroll Jackson Moore
 Edith Ann Morgan
 Robert Franklin Moseley, Jr.
 John August Mraz
 Howard Macon Mustian, Jr.
 Walter Edward Myers
 William Arthur Nebel
 Zachariah Boardman Newton, III
 Charlotte Blynn Noell
 Priscilla Elizabeth Norman
 Beverly Ann Orr
 Jordan Horton Parker
 Malcolm Overstreet Partin
 (with Highest Honors in History)
 Jane Law Patten
 Macon Glasgow Patton
 Roland William Payne, Jr.
 Willie Gordon Peacock
 Thomas Jenkins Pearsall, Jr.
 Nancy Elizabeth Pearson
 William Lardner Pender
 Carl Glenn Pickard, Jr.
 Theophilus Harper Pitt, Jr.
 James Patrick Pittman
 Francis Cordes Porcher
 Dorothy Byrne Pressly
 James Young Preston
 Thomas Wendell Prewitt
 Glenn Franklin Price
 Vernon Price
 Grady Clifton Pridgen, Jr.
 William Paul Pulley, Jr.
 Jeff Alvin Pyatte, Jr.
 Thelma Ann Ragland
 George Robinson Ragsdale
 Frank Mayo Ramos
 William Forbes Ramsey
 Francis Rodrick Randolph
 John Elisha Raper, Jr.
 Eugenia Gray Rawls
 Horace T. Ray, Jr.
 William Howard Redding, Jr.
 Alton Alfred Reeder
 William Thomas Rightsell, Jr.
 David Clayton Rivenbark, Jr.
 Louise Barnwell Robertson
 Richard Hutto Robertson
 Charles Franklin Robinson
 Hoyle Lynwood Robinson
 John Boyd Robinson
 Kenneth Walker Rosemond
 Martin Rosenzweig
 Robert Galloway Ruffin
 Nancy Jo Rush
 William Albert Ruth
 Mary Ellen Sample
 Cleon Walton Sanders, Jr.
 Margaret Mullings Sanders
 George Freeman Sasser
 Thomas Byron Saunders
 Nan Tutwiler Young Schaeffer
 Harriet Ruth Schafer
 Adelaide McAnally Schnell
 Cynthia Jane Segreaves
 Lloyd R. Shaw, Jr.
 Harold Dean Shepherd
 Fuller Adams Shuford
 Sydney Herbert Shuford
 Haywood Giles Simpson, Jr.
 Sally Louise Simpson
 Stephen Michael Simpson
 Deborah Hunt Sink
 Fairleigh David Small
 Canie Brown Smith
 Faye Lorraine Smith
 Henry Bascom Smith, Jr.
 Norman Shaw Smith
 (with Honors in Political Science)
 John Aitken Sneden, Jr.
 Arthur Herbert Sobel
 Henry Joseph Sommer, Jr.
 Stephanie Hope Sparger
 Virginia Anne Stallings
 Robert Vincent Staton

John Congleton Steed
 Charles Theodore Stephens, Jr.
 Pawling Schryver Steward
 William Ernest Stewart
 Katharine Hartridge Strong
 Walter Cabot Sturdivant, Jr.
 Charles Floyd Sugg
 Charles Finch Suratt
 Lewis Franklyn Sutton
 John Henry Talbutt
 Michael Spencer Tanner
 Richard Lewis Taylor
 James Franklin Thompson
 Charles Vawter Tompkins, Jr.
 Charles William Tulloch
 Henry Catlett Turner
 John Gordon Underwood
 (with Honors in Writing)
 Gilbert Rivers Upchurch
 Ralph Stelljes Usina

William Baxter Waddill, Jr.
 Albert Marvin Waitman
 Helen Hope Walker
 John Luther Walker, Jr.
 Virginia Lake Walker
 Kelley Wallace, Jr.
 Lewis John Wallace, Jr.
 Mary Jane Wallace
 Thomas Noble Walters
 Leo Clyde Wardrop, Jr.
 John Drew Warlick, Jr.
 Sidney Rogers Warner
 Kathryn Kyle Webb
 Thomas Carlton Webster
 Robert Morton Weinstein
 Nancy Schechter Weitzman
 James Everett Whatley
 Mildred Hoge Whitehurst
 Mary Susan Whiteley
 Paul L. Whitfield
 John Franklin Whitt

Constance Elizabeth Whittaker
 John Christopher Whitty
 James Allen Williams, Jr.
 Taylor Brown Williams
 Harold Everette Williamson
 Sara Dargan Williamson
 Richard Weldon Willis, Jr.
 Lawrence Addison Wilson, Jr.
 Patricia Davis Wilson
 William John Wilson, III
 Julian Emmett Winslow, Jr.
 Barry Thomas Winston
 Carolyn Wisler
 Ben van Dalsem Woltz
 Roy Smith Wood, Jr.
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 Mary Anne Woods
 Ernest Franklin Young, Jr.
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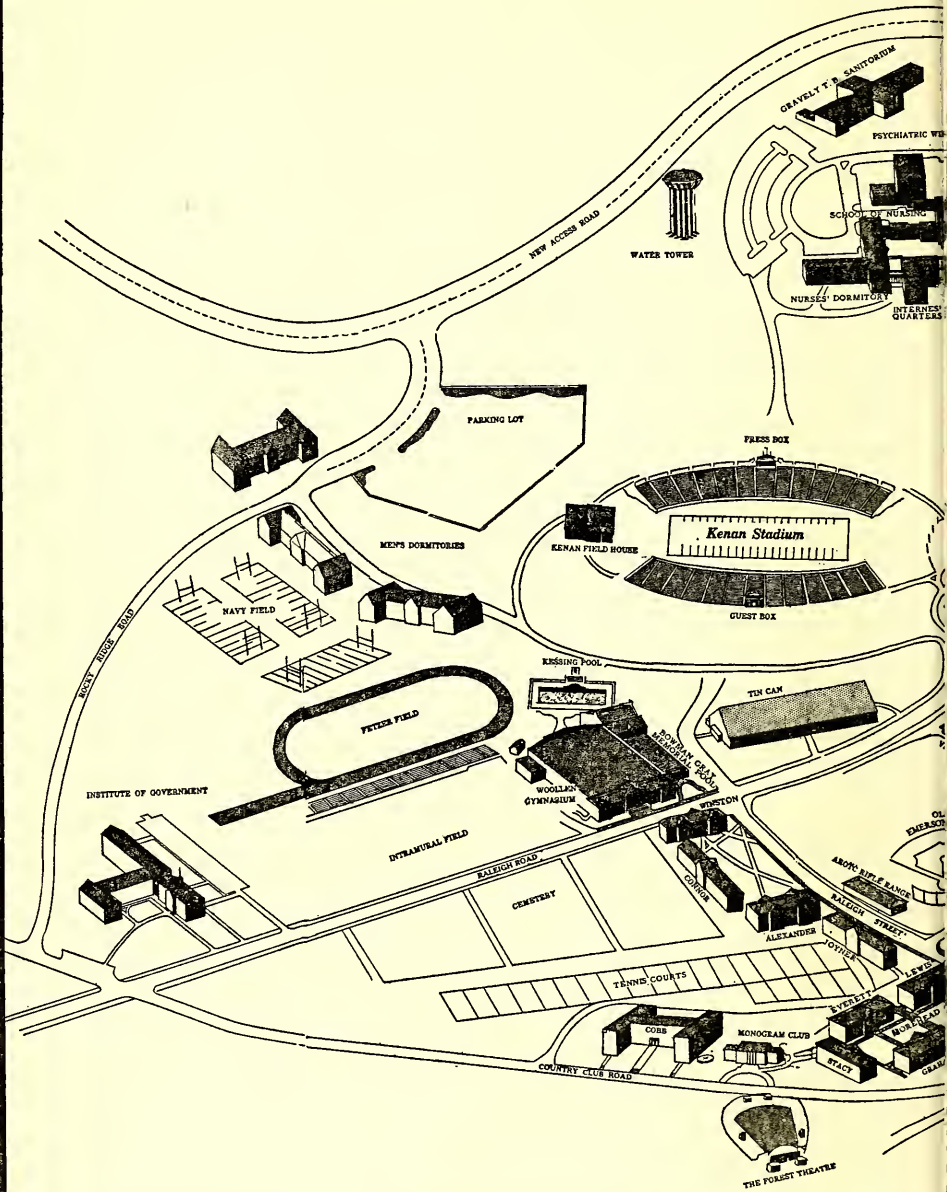
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