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THE UNIVERSITY OF NORTH CAROLINA RECORD

May 25, 1952

Number 505

THE GENERAL CATALOGUE ISSUE

FOR

THE 158TH SESSION

1951-1952

*ANNOUNCEMENTS
FOR THE SESSION*

1952-1953



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FEBRUARY, 3 NUMBERS IN MARCH, 3 NUMBERS IN APRIL, 2 NUMBERS IN
MAY, AND 1 NUMBER IN OCTOBER. ENTERED AS SECOND-CLASS
MATTER AT THE POST OFFICE AT
CHAPEL HILL, N. C.
UNDER THE ACT OF AUGUST 24, 1912

SCHEDULE OF ISSUES OF
THE RECORD
FOR YEAR 1951-1952

Research in Progress

School of Social Work Catalogue

School of Pharmacy Catalogue

School of Library Science Catalogue

School of Dentistry Catalogue

Summer Session Catalogue

School of Business Administration Catalogue

School of Law Catalogue

Department of City and Regional Planning Catalogue

School of Public Health Catalogue

School of Nursing Catalogue

School of Medicine Catalogue

Graduate School Catalogue

The General Catalogue Issue

General Information

MAY 25, 1952

NUMBER 505

THE UNIVERSITY OF NORTH CAROLINA RECORD

THE ONE HUNDRED AND
FIFTY-EIGHTH SESSION



THE GENERAL CATALOGUE ISSUE

1951-1952

*Announcements for the Session
1952-1953*

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

1952

JANUARY	APRIL	JULY	OCTOBER
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1953

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CALENDAR OF EVENTS

1952-1953

FALL QUARTER, 1952

September 15-17	<i>Monday-Wednesday.</i> Freshman camp.
September 18-21	<i>Thursday-Sunday.</i> Orientation and placement of new students.
September 19-20	<i>Friday-Saturday.</i> Examinations for removal of conditions.
September 22-23	<i>Monday-Tuesday.</i> Registration.
September 24	<i>Wednesday.</i> First day of classes.
October 12	<i>Sunday.</i> University Day.
November 26	<i>Wednesday.</i> Thanksgiving recess begins at 1:00 P.M.
December 1	<i>Monday.</i> Thanksgiving recess ends at 8:00 A.M.
December 12	<i>Friday.</i> Last day of classes.
December 13, 15-18	<i>Saturday, Monday-Thursday.</i> Final examinations.
December 19	<i>Friday.</i> Christmas vacation begins.

WINTER QUARTER, 1953

January 5	<i>Monday.</i> Registration of new students.
January 6	<i>Tuesday.</i> First day of classes.
March 12	<i>Thursday.</i> Last day of classes.
March 13-14, 16-18	<i>Friday, Saturday, Monday-Wednesday.</i> Final examinations.
March 19	<i>Thursday.</i> Spring recess begins.

SPRING QUARTER, 1953

March 24	<i>Tuesday.</i> Registration of new students.
March 25	<i>Wednesday.</i> First day of classes.
May 29	<i>Friday.</i> Last day of classes.
May 30, June 1-4	<i>Saturday, Monday-Thursday.</i> Final examinations.
June 8	<i>Monday.</i> Commencement.

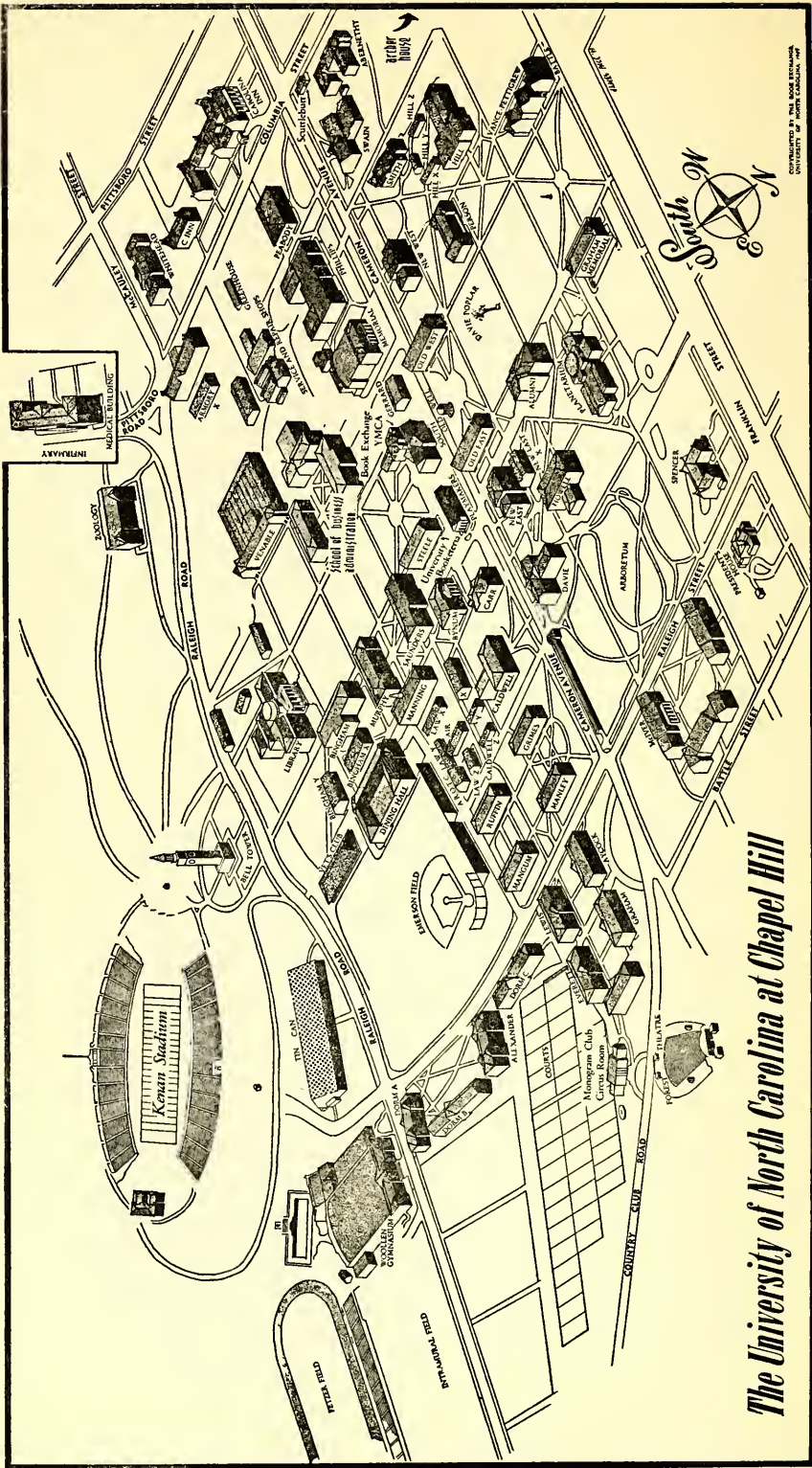
SUMMER SESSION, 1953

First Term

June 10	<i>Wednesday.</i> Orientation and placement of freshmen.
June 11	<i>Thursday.</i> Registration.
June 12	<i>Friday.</i> First day of classes.
June 13	<i>Saturday.</i> Classes will meet.
June 27	<i>Saturday.</i> Classes will meet.
July 11	<i>Saturday.</i> Classes will meet.
July 13	<i>Monday.</i> Last day of classes.
July 14-15	<i>Tuesday-Wednesday.</i> Final examinations.

Second Term

July 16	<i>Thursday.</i> Registration.
July 17	<i>Friday.</i> First day of classes.
July 18	<i>Saturday.</i> Classes will meet.
August 15	<i>Saturday.</i> Classes will meet.
August 18	<i>Tuesday.</i> Last day of classes.
August 19-20	<i>Wednesday-Thursday.</i> Final examinations.



The University of North Carolina at Chapel Hill

UNIVERSITY OF NORTH CAROLINA
 CHAPEL HILL, N.C.


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Part One

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(Office at Chapel Hill)

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DIVISION OF SOCIAL SCIENCES: G. W. Blackwell, F. M. Green, M. S. Heath, S. M. Holton, Dorothy McCuskey.

Terms Expire December 31, 1953

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DIVISION OF HUMANITIES: Hugh Holman, S. E. Leavitt, S. A. Stoudermire.

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Terms Expire December 31, 1954

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DIVISION OF HUMANITIES: L. A. Cotten, Richard Jente, W. D. MacMillan, W. H. Poteat, R. F. Schenkkan, B. L. Ullman.

DIVISION OF NATURAL SCIENCES: Dorothy Adkins, C. S. Jones, S. B. Knight, E. D. Palmatier.

DIVISION OF SOCIAL SCIENCES: L. M. Brooks, D. D. Carroll, C. O. Cathey, G. A. Heard, F. W. Klingberg, Hugh Lefler, W. H. Peacock, J. C. Sitterson, T. M. Stanback, R. H. Wettach.

STANDING COMMITTEES OF THE FACULTY

*ADVISORY (*elected*). 1952: Messrs. Couch, Phillips, Woosley; 1953: Blackwell, T. H. Carroll, Roe; 1954: F. M. Green, C. P. Lyons, Wettach.

*ATHLETICS. 1952: Hanft, J. B. Linker; 1953: A. W. Hobbs (*Chairman*), Sitterson, H. D. Wolf; 1954: Cornwell, Hedgpath.

BUILDINGS AND GROUNDS. Messrs. Baity, Cornwell, Emory, R. J. M. Hobbs (*Chairman*), J. A. Parker, Teague, Totten, Wager.

†CATALOGUE. Messrs. Armstrong (*Chairman*), Howell, Miss Norman.

*COMMUNICATION. 1952: Messrs. Haydon, Morrison; 1953: Cornwell, Grumman (*Chairman*), Schenkkan; 1954: J. C. Lyons, Olsen.

*ENDOWED SCHOLARSHIPS, LOAN FUNDS, AND SELF-HELP WORK. 1952: Messrs. Mackie, Plemmons, Spruill, Weaver, J. A. Williams; 1953: Cornwell, M. A. Hill, Jr., Lanier, J. M. Saunders, Teague; 1954: Armstrong, D. D. Carroll (*Chairman*), C. Johnson, S. B. Knight, Wells.

*ENGLISH COMPOSITION. 1952: Messrs. Epps, Hardré, G. B. Johnson, McKnight, Pegg, Sechriest; 1953: Aycock, Friederich, Hartung, Heard,

* Terms expire the year indicated.

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

Horner (*Chairman*), Layman, Mouzon, Selden; 1954: Emery, Gwynn, C. Johnson, Newman, Tyree, Wood.

*ESTABLISHED LECTURES. 1952: Messrs. Costello, Engstrom; 1953: Hanft, Heath, Nash; 1954: Heard (*Chairman*), McCurdy.

*EXAMINATIONS AND INSTRUCTIONS. 1952: Garner, Jordan; 1953: Armstrong (*ex officio*), Engstrom (*Chairman*), Horner; 1954: S. B. Knight, Pegg.

*EXECUTIVE (*elected*). 1952: Messrs. Bailey, Spearman; 1953: S. B. Knight, Miss McCuskey; 1954: C. S. Jones, Poteat.

*FACULTY WELFARE. 1952: Messrs. Klingberg, H. A. Perry; 1953: Brooks, Crockford, Wadsworth; 1954: Alexander, G. Barrett (*Chairman*).

*FRATERNITIES AND SORORITIES. 1952: Messrs. Cotten, MacKinney (*Chairman*); 1953: O'Neil, Shotts; 1954: Cochrane, Harland, Saunders.

*HONORARY DEGREES (*elected*). 1952: Messrs. Leavitt, Odum; 1953: Baity, F. M. Green; 1954: D. D. Carroll, Wettach.

†INSTRUCTIONAL PERSONNEL. Miss Akers, Messrs. Brandis, T. H. Carroll, Coffin, Haydon, Keith-Lucas, C. P. Lyons (*Chairman*), Phillips, Pierson, Roe, Spruill, H. D. Wolf.

*PLANS AND PROJECTS. 1952: Miss Adkins, Messrs. Blackwell; 1953: Couch, Engstrom; 1954: Heer, Hurlburt, Wells (*Chairman*).

*RADIOISOTOPES. 1952: Messrs. Brinkhous, Costello; 1953: Doak, A. K. King; 1954: Roe (*Chairman*), Shearin, Van Cleave.

*REGISTRATION. 1952: Messrs. Brecht, Engstrom, T. H. Evans, Horner, Jamerson, A. K. King, Spruill; 1953, T. H. Carroll, Hedgpath, Markham, McGavran, Pegg, Suskin; 1954: Armstrong, Coffin, M. A. Hill, Jr., Lanier (*Chairman*), Phillips, Whyburn.

*REGULATION OF STUDENT DANCES. 1952: Messrs. Cotten (*Acting Chairman*), Markham; 1953: Cornwell, Jefferies; 1954: Stanback, Mrs. Wettach.

*RETIREMENT ARRANGEMENTS. 1952: Anderson, Dalzell; 1953: Cummings, H. K. Russell; 1954: Heer (*Chairman*), Miss McCuskey.

*SULLIVAN AWARD. 1952: Messrs. Mackie (*Chairman*), Suskin; 1953: Weaver; 1954: Cornwell, Mrs. Wettach.

*UNIVERSITY GOVERNMENT. 1952: Messrs. A. K. King, O'Neil; 1953: Godfrey, Whyburn; 1954: Klingberg, ‡Van Hecke, Markham (*Chairman*).

*WAR CREDITS FOR VETERANS. 1952: Messrs. Spruill; 1953: Plemmons (*Chairman*); 1954: O'Neil.

* Terms expire the year indicated.

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

‡ Resigned April 1, 1952.

OFFICERS OF INSTRUCTION

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

A.B., 1930, LL.D. (North Carolina); LL.B., 1933 (Yale)

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

A.B., 1916 (North Carolina); A.M., 1917 (Harvard); LL.D. (Catawba, Bowdoin)

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. 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, the names of all administrative officers who also do actual teaching, and the names of all instructors and part-time instructors. The names are arranged in alphabetical order.

ROBERT HENRY ACKERSON, M.A., *Part-time Instructor in Mathematics*
B.A., 1945 (Hofstra College); M.A., 1947 (Columbia)

ELIE MAYNARD ADAMS, Ph.D., *Assistant Professor of Philosophy*
A.B., 1941, M.A., 1944 (Richmond); B.D., 1944 (Colgate-Rochester Divinity School); A.M., 1947, Ph.D., 1948 (Harvard)

JOSEPH EDISON ADAMS, Ph.D., *Professor of Botany*
Ph.G., 1925, Ph.Ch., 1927 (College of Pharmacy, Columbia); B.S., 1929 (Michigan); M.A., 1932 (Columbia); Ph.D., 1935 (California)

NICHOLSON BARNEY ADAMS, Ph.D., Litt.D., *Professor of Spanish*
A.B., 1915, Litt.D. (Washington and Lee); M.A., 1920, Ph.D., 1922 (Columbia)

RAYMOND WILLIAM ADAMS, Ph.D., *Professor of English*
A.B., 1920 (Beloit); A.M., 1921, Ph.D., 1928 (North Carolina)

DOROTHY C. ADKINS, Ph.D., *Professor of Psychology*
B.S., 1931, Ph.D., 1937 (Ohio State)

SUSAN GREY AKERS, Ph.D., *Professor of Library Science and Dean of the School of Library Science*
A.B., 1909 (Kentucky); Certificate, 1913 (Library School, Wisconsin); Ph.D., 1932 (Chicago)

EDGAR ALDEN, M.M., A.M. *Instructor in Music*
B.M., 1936, M.M., 1940 (Oberlin); A.M., 1950 (North Carolina)

- SYDENHAM BENONI ALEXANDER, A.B., M.D., *Instructor in Medicine and Associate University Physician*
A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Virginia)
- JOHN VOLNEY ALLCOTT, M.A., *Professor of Art*
Ph.B., 1928 (Wisconsin); M.A., 1936 (Chicago)
- *ERNEST MARVIN ALLEN, JR., A.M., *Assistant Professor of Physical Education*
A.B., 1938, A.M., 1940 (North Carolina)
- JOHN ALEXANDER ALLEN, A.B., B.A., *Part-time Instructor in English*
A.B., 1943 (Swarthmore); B.A., 1948 (Oxford)
- WALTER ALLEN, JR., Ph.D., *Professor of Latin*
A.B., 1932 (Wesleyan); Ph.D., 1936 (Yale)
- CARL ELMORE ANDERSON, Ph.D., *Associate Professor of Biological Chemistry and Nutrition*
B.S., 1935 (Connecticut); Ph.D., 1943 (North Carolina)
- JOHN QUINCY ANDERSON, A.M., *Part-time Instructor in English*
A.B., 1939 (Oklahoma A. & M.); A.M., 1948 (Louisiana State)
- JOHN ANDRAKO, M.S., *Instructor in Pharmacy*
B.S. in Phar., 1947, M.S., 1949 (Rutgers)
- JAMES CLARENCE ANDREWS, Ph.D., *Professor of Biological Chemistry and Nutrition*
B.S., in Chem. (Iowa); Ph.D., 1918 (Columbia)
- WALTER W. ARNDT, B.S., *Part-time Instructor in Russian*
Dipl. Econ. Pol. Sc., 1936 (Oxford); B.S., 1943 (Robert College, Istanbul, Turkey)
- LOWELL DEWITT ASHBY, Ph.D., *Associate Professor of Economics*
A.B., 1936 (Hastings College); M.A., 1938 (Nebraska); Ph.D., 1948 (Wisconsin)
- EDITH EUGENIA AVERITT, A.B., A.B. in L.S., *Geology Librarian*
A.B., 1925, A.B. in L.S., 1934 (North Carolina)
- ROY EDWIN AYCOCK, A.B., *Part-time Instructor in English*
A.B., 1949 (Furman)
- WILLIAM BRANTLEY AYCOCK, A.M., J.D., *Associate Professor of Law*
B.S., 1936 (North Carolina State); A.M., 1937, J.D., 1948 (North Carolina)
- HERBERT RALPH BAER, A.B., LL.B., *Professor of Law*
A.B., 1923 (Cornell); LL.B., 1926 (Harvard)
- ENGLISH BAGBY, Ph.D., *Professor of Psychology*
A.B., 1913, A.M., 1914 (Princeton); Ph.D., 1918 (Johns Hopkins)
- JAMES OSLER BAILEY, Ph.D., *Professor of English*
A.B., 1924, A.M., 1927, Ph.D., 1934 (North Carolina)
- HERMAN GLENN BAITY, Sc.D., *Professor of Sanitary Engineering*
A.B., 1917, S.B. in C.E., 1922 (North Carolina); S.M., 1925, Sc.D., 1928 (Harvard)

* Absent on leave for military duty.

- CLAUDE ROWE BAKER, D.D.S. A.B., M.S., *Professor of Fixed Partial Dentures*
D.D.S., 1935, A.B., 1937, M.S., 1939 (Minnesota)
- RAYMOND H. BAKER, M.B.A., *Lieutenant Colonel, United States Air Force, Associate Professor of Air Science and Tactics*
M.B.A., 1949 (Texas)
- GEORGE BARCLAY, A.B., *Assistant Football Coach*
A.B., 1935 (North Carolina)
- WILLIAM JOSEPH BARNHART, A.M., *Part-time Instructor in English*
A.B., 1947, A.M., 1949 (Tennessee)
- GERALD ALAN BARRETT, A.B., LL.B., *Associate Professor of Business Law and Adviser in the General College*
A.B., 1933 (Lehigh); LL.B., 1936 (Columbia)
- DAVID GIOVANNI BASILE, M.A., *Assistant Professor of Geography*
A.B., 1936 (Washington and Lee); M.A., 1939 (Columbia)
- THOMAS EDWARD BASS, III, A.B., *Lieutenant Commander, United States Navy, Assistant Professor of Naval Science*
A.B., 1938 (North Carolina)
- CHARLES OTTO BAUGHN, M.S.P.H., *Part-time Instructor in Parasitology*
B.S., 1947 (Indiana State); M.S.P.H., 1949 (North Carolina)
- JAN H. R. BEAUJON, S.M., *Part-time Instructor in Pharmacy*
S.B. in Phar., 1949 (Rutgers); S.M., 1950 (North Carolina)
- JAMES RUSH BEELER, A.M., *Part-time Instructor in French*
A.B., 1942, A.M., 1949 (North Carolina)
- CHARLES DALE BEERS, Ph.D., *Professor of Zoology*
A.B., 1921, A.M., 1922 (North Carolina); Ph.D., 1925 (Johns Hopkins)
- GEORGE FERDINAND BENTLEY, A.B., B.S. in L.S., *Assistant to the Librarian*
A.B., 1937 (Vanderbilt); B.S. in L.S., 1941 (Peabody)
- MICHAEL KALEN BERKUT, B.S., *Instructor in Biological Chemistry and Nutrition*
B.S., 1941 (North Carolina State)
- WALTER REECE BERRYHILL, A.B., M.D., *Professor of Clinical Medicine and Dean of the School of Medicine*
A.B., 1921 (North Carolina); M.D., 1927 (Harvard)
- LANGDON BERRYMAN, Ph.D., *Assistant Professor of Physics*
A.B., 1946, Ph.D., 1950 (Oklahoma)
- HAROLD A. BIERCK, JR., Ph.D., *Associate Professor of History*
B.A., 1938, M.A., 1940, Ph.D., 1944 (U.C.L.A.)
- GORDON WILLIAMS BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science*
A.B., 1932 (Furman); A.M., 1933 (North Carolina); A.M., 1937, Ph.D., 1940 (Harvard)

- JAMES CYRIL DICKSON BLAINE, Ph.D., *Associate Professor of Business Administration*
 B.Comm., 1934 (Queen's University, Canada); S.M., 1939, Ph.D., 1941 (North Carolina)
- MARGARET BLEE, R.N., M.Ed., *Associate 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, A.M., *Instructor in Physical Education*
 B.S., 1947 (Lenoir Rhyne); A.M., 1948 (North Carolina)
- RICHMOND PUGH BOND, Ph.D., *Professor of English*
 A.B., 1920 (Vanderbilt); A.M., 1923, Ph.D., 1929 (Harvard)
- LLOYD JOSEPH BORSTELMANN, Ph.D., *Assistant Professor of Psychology*
 B.S., 1941 (U.C.L.A.); M.A., 1948, Ph.D., 1950 (California)
- RAJ CHANDRA BOSE, D.Litt., *Professor of Mathematical Statistics*
 M.A., 1927, D.Litt., 1947 (University of Calcutta)
- *RALPH WALTON BOST, Ph.D., *Kenan Professor of Chemistry*
 A.B., 1923 (Newberry); A.M., 1924, Ph.D., 1928 (North Carolina)
- VERNON LEE BOUNDS, LL.B., *Associate Research Professor in Public Law and Government*
 LL.B., 1949 (Virginia)
- WAYNE A. BOWERS, Ph.D., *Associate Professor of Physics*
 A.B., 1938 (Oberlin); Ph.D., 1943 (Cornell)
- FRANK OTTO BOWMAN, JR., A.B., S.B., *Part-time Instructor in Geology*
 A.B., 1941 (Williams); S.B., 1942 (North Carolina)
- BERNARD H. BOYD, M.A., Th.D., *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)
- RUTH MARY BOYLES, R.N., M.S., *Professor of Nursing*
 B.S., 1930 (Kansas State); Diploma in Nursing, 1937 (St. Luke's, Chicago); M.S., 1949 (Chicago)
- JOHN SAEGER BRADWAY, A.M., LL.B., *Visiting Professor of Social Laws; Professor of Law, Duke University*
 A.B., 1911, A.M., 1915 (Haverford); LL.B., 1914 (Pennsylvania)
- HENRY PARKER BRANDIS, JR., A.B., LL.B., LL.D., *Professor of Law and Dean of the School of Law*
 A.B., 1928 (North Carolina); LL.B., 1931 (Columbia); LL.D., (Catawba)
- ALFRED THEODOR BRAUER, Ph.D., *Professor of Mathematics*
 Ph.D., 1928 (Berlin)
- JOHN CHARLES BRAUER, D.D.S., A.B., M.Sc., *Professor of Pedodontics and Dean of the School of Dentistry*
 D.D.S., 1928, A.B., 1934, M.Sc., 1936 (Nebraska)

* Died September 22, 1951.

- EDWARD ARMOND BRECHT, Ph.D., *Professor of Pharmacy and Dean of the School of Pharmacy*
B.S. in Pharmacy, 1933, M.S., 1934, Ph.D., 1939 (Minnesota)
- MILLARD SHERIDAN BRECKENRIDGE, Ph.B., LL.B., *Professor of Law*
Ph.B., 1917 (Chicago); LL.B., 1918 (Yale)
- HAROLD REID BREWER, B.S., *Part-time Instructor in Physics*
B.S., 1949 (Georgia Tech)
- KENNETH MERLE BRINKHOUS, B.A., M.D., *Professor of Pathology*
B.A., 1929, M.D., 1932 (Iowa)
- EDITH PERRYMAN BROCKER, R.N., M.A., *Visiting Instructor in Public Health Nursing*
Diploma, 1930 (Graduate Hospital, University of Pennsylvania); R.N.; B.S. P.H.N., 1944 (North Carolina); M.A., 1951 (Chicago)
- JOHN CARUTHERS BRODERICK, A.M., *Part-time Instructor in English*
A.B., 1948 (Southwestern); A.M., 1949 (North Carolina)
- LEE MARSHALL BROOKS, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1925 (Boston); A.M., 1926, Ph.D., 1929 (North Carolina)
- CARL FRASER BROWN, Ph.D., *Associate Professor of Education*
A.B., 1930, A.M., 1931 (South Carolina); Ph.D., 1946 (Peabody)
- JACK HAROLD UPTON BROWN, Ph.D., *Assistant Professor of Physiology*
B.S., 1939 (South West Texas State College); Ph.D., 1948 (Rutgers)
- ROY MELTON BROWN, Ph.D., *Professor of Public Welfare Administration, Emeritus*
A.B., 1906, A.M., 1921, Ph.D., 1929 (North Carolina)
- WILLIAM WILSON BROWN, JR., A.B., *Part-time Instructor in Political Science*
A.B., 1949 (North Carolina)
- EDWARD TANKARD BROWNE, Ph.D., *Professor of Mathematics*
B.A., 1915, M.A., 1917 (Virginia); Ph.D., 1926 (Chicago)
- HARRY DAVIS BRUNER, Ph.D., M.D., *Visiting Professor of Radiobiology*
B.S., 1932, M.D., 1934, M.S., 1936 (Louisville); Ph.D., 1939 (Chicago)
- ALBERT HUGHES BRYAN, B.S., M.D., *Professor of Public Health Nutrition*
B.S., 1927, M.D., 1931 (Harvard)
- *J. SHEPARD BRYAN, JR., B.S., LL.B., *Assistant Research Professor in Public Law and Government*
B.S., 1944 (United States Naval Academy); LL.B., 1950 (Harvard)
- DANIEL HOUSTON BUCHANAN, Ph.D., *Professor of Economics and Research Professor in the Institute for Research in Social Science*
Litt.B., 1909 (Sterling College); A.B., 1911 (Colorado College); A.M., 1912 (Harvard); D.Sc.Econ., 1928 (Keiogiujuku Univ., Tokyo); Ph.D., 1931 (Harvard)

* Absent on leave for military duty.

- ERWIN CLYDE BUELL, M.A., *Part-time Instructor in Political Science*
B.A., 1941, M.A., 1947 (North Texas State College)
- EVERETT IRVING BUGG, M.D., *Lecturer in Orthopedic Surgery*
M.D., 1937 (Johns Hopkins)
- JAMES BELL BULLITT, M.A., M.D., *Professor of Pathology, Emeritus*
B.A., 1894, M.A., 1895 (Washington and Lee); M.D., 1897 (Virginia)
- WILLIAM D. BULLOCH, S.M., *Instructor in Astronomy*
B.A., 1946 (Dartmouth); S.M., 1950 (North Carolina)
- WILLIS CLIFTON BUMGARNER, B.S., J.D., *Assistant Research Professor in Public Law and Government*
B.S., 1939 (Appalachian State); J.D., 1951 (North Carolina)
- ROBERT LOGAN BUNTING, A.M., *Major, United States Air Force, Assistant Professor of Air Science and Tactics*
A.M., 1948 (Chicago)
- CHARLES HOYT BURNETT, A.B., M.D., *Professor of Medicine*
A.B., 1934, M.D., 1937 (Colorado)
- WILLIAM THOMAS BURNS, A.B., D.D.S., *Part-time Clinical Assistant Professor of Fixed Partial Dentures*
A.B., 1941 (North Carolina); D.D.S., 1944 (Emory)
- THOMAS C. BUTLER, A.B., M.D., *Professor of Pharmacology*
A.B., 1930, M.D., 1934 (Vanderbilt)
- WORTH MILLER BYRD, D.D.S., *Part-time Clinical Assistant Professor of Fixed Partial Dentures*
D.D.S., 1941 (Medical College of Virginia)
- ROBERT RANDALL CADMUS, A.B., M.D., *Administrator of the University Hospital*
A.B., 1936 (College of Wooster); M.D., 1940 (Columbia)
- FRANK COLEMAN CADY, D.D.S., M.P.H., *Part-time Professor of Public Health and Dental Science*
D.D.S., 1910 (Michigan); M.P.H., 1937 (Harvard)
- FRANK C. CALDWELL, B.S., *Major, United States Marine Corps, Assistant Professor of Naval Science*
B.S., 1942 (Davidson)
- JAMES ROY CALDWELL, Ph.D., *Instructor in Social Science*
A.B., 1931 (Davidson); A.M., 1937, Ph.D., 1950 (North Carolina)
- WALLACE EVERETT CALDWELL, Ph.D., *Professor of Ancient History*
A.B., 1910 (Cornell); Ph.D., 1919 (Columbia)
- RICHARD PERCIVAL CALHOON, M.A., *Professor of Business Administration*
A.B., 1930, A.M., 1932 (Pittsburgh)
- *EDWARD ALEXANDER CAMERON, Ph.D., *Professor of Mathematics*
A.B. in Educ., 1928, A.M., 1929, Ph.D., 1936 (North Carolina)

* Absent on leave, 1951-1952.

- FRANK KENNETH CAMERON, Ph.D., *Professor of Chemistry, Emeritus*
A.B., 1891, Ph.D., 1894 (Johns Hopkins)
- JAMES VERNON CAMP, A.M., *Assistant Football Coach*
A.B., 1947, A.M., 1948 (North Carolina)
- CHARLES H. CAMPBELL, A.B., M.S.P.H., *Part-time Instructor in Parasitology*
A.B., 1949, M.S.P.H., 1951 (North Carolina)
- RALPH FREDERICK CAMPBELL, B.A., D.D.S., *Part-time Clinical Instructor in Prosthodontics*
B.A., 1940 (Emory and Henry); D.D.S., 1943 (Medical College of Virginia)
- * KATHERINE KENNEDY CARMICHAEL, Ph.D., *Dean of Women*
A.B., 1932 (Birmingham-Southern); M.A., 1939, Ph.D., 1943 (Vanderbilt)
- NOEL CARPENTER, B.S., *Major, United States Air Force, Assistant Professor of Air Science and Tactics*
B.S., 1941 (Alabama)
- DUDLEY DEWITT CARROLL, M.A., *Professor of Economics and Dean Emeritus of the School of Commerce*
A.B., 1907 (Guilford); A.B., 1908 (Haverford); M.A., 1915 (Columbia)
- JOHN ERWIN CARROLL, JR., A.M., *Instructor in French*
B.S., 1923 (The Citadel); A.M., 1928 (North Carolina)
- THOMAS H. CARROLL, B.S., M.B.A., D.C.S., *Professor of Business Administration and Dean of the School of Business Administration*
B.S., 1934 (California); M.B.A., 1936, D.C.S., 1939 (Harvard Graduate School of Business Administration)
- † CLYDE CASS CARTER, Ph.D., *Associate 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, B.S., M.S.S., *Associate Professor of Social Work*
B.S., 1924 (Boston); M.S.S., 1925 (Smith College School of Social Work)
- JOEL J. CARTER, M.A., *Assistant Professor of Music*
A.B., 1935 (San Jose State College); M.A., 1947 (Stanford)
- LESLIE RALPH CASEY, A.M., *Assistant Professor of Physical Education*
A.B., 1946, A.M., 1949 (North Carolina)
- CORNELIUS OLIVER CATHEY, Ph.D., *Assistant Professor of History and Social Science and Adviser in the General College*
A.B., 1928, A.M., 1929 (Davidson College); Ph.D., 1948 (North Carolina)
- CONSTANTINE P. CAVARNOS, Ph.D., *Assistant Professor of Philosophy*
A.B., 1942, A.M., 1947, Ph.D., 1948 (Harvard)
- EMIL THEODORE CHANLETT, M.S.S.E., *Associate 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)

* Absent on leave, 1951-1952.

† Absent on leave for military duty.

- FRANCIS STUART CHAPIN, JR., A.B., B.Arch.C.P., M.C.P., *Associate Professor of Planning and Research Associate 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)
- ALLEN H. CHAPPEL, B.A., *Part-time Instructor in German*
B.A., 1950 (Washington and Lee)
- JEAN DANIEL CHARRON, M.S., *Part-time Instructor in French*
B.S., 1942 (Paris); M.S., 1944 (College Stanislas)
- PHILIP MACON CHEEK, Ph.D., *Assistant Professor of English*
A.B., 1927, A.M., 1928, Ph.D., 1931 (North Carolina)
- ALPHONSE F. CHESTNUT, Ph.D., *Associate Professor in the Institute of Fisheries Research*
B.S., 1941 (William and Mary); M.S., 1943, Ph.D., 1949 (Rutgers)
- SIDNEY SHAW CHIPMAN, B.A., M.D., M.P.H., *Professor of Maternal and Child Health*
B.A., 1924 (Acadia); M.D., 1928 (McGill); M.P.H., 1947 (Yale)
- HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*
A.B., 1937 (North Carolina); M.D., 1944 (Rochester)
- JOHN STROTHER CLAYTON, A.B., *Instructor in Radio*
A.B., 1949 (North Carolina)
- FREDERIC NEILL CLEAVELAND, Ph.D., *Assistant Professor of Political Science and Research Associate in the Institute for Research in Social Science*
B.A., 1937, M.A., 1942 (Duke); M.A., 1950, Ph.D., 1951 (Princeton)
- ALBERT COATES, A.B., LL.B., *Professor of Law and Director of the Institute of Government*
A.B., 1918 (North Carolina); LL.B., 1923 (Harvard)
- *ARTHUR BYRON COBLE, Ph.D., LL.D., *Visiting Professor of Mathematics*
A.B., 1897, A.M., 1900, LL.D. (Gettysburg); Ph.D., 1902 (Johns Hopkins)
- LUCIAN GRAVES COBLE, D.D.S., *Part-time Clinical Professor of Prosthodontics*
D.D.S., 1908 (Baltimore College of Dental Surgery)
- CARL COCHRANE, A.B., *Part-time Instructor in Psychology*
A.B., 1950 (Guilford)
- WILLIAM MCWHORTER COCHRANE, A.B., LL.M., *Associate Research Professor in Public Law and Government*
A.B., 1939, LL.B., 1941 (North Carolina); LL.M., 1951 (Yale)
- JOFFRE LANNING COE, M.A., *Instructor in Anthropology and Director of the Laboratory of Anthropology*
A.B., 1944 (North Carolina); M.A., 1948 (Michigan)

* Winter and spring quarters, 1952.

- FREDERIC EDWARD COENEN, Ph.D., *Professor of German*
A.B., 1928, A.M., 1930 (Arizona); Ph.D., 1936 (North Carolina)
- OSCAR JACKSON COFFIN, A.B., *Professor of Journalism and Dean of the School of Journalism*
A.B., 1909 (North Carolina)
- GEORGE RALEIGH COFFMAN, Ph.D., *Kenan Professor of English, Emeritus*
A.B., 1903 (Drake); A.M., 1909 (Harvard); Ph.D., 1913 (Chicago)
- MAX OLIVER COGBURN, A.B., LL.M., *Assistant Research Professor in Public Law and Government*
A.B., 1948, LL.B., 1950 (North Carolina); LL.M., 1951 (Harvard)
- *FRANCIS WILLIAM COKER, Ph.D., *Burton Craige Visiting Professor of Jurisprudence*
A.B., 1899 (North Carolina); A.B., 1902 (Harvard); Ph.D., 1910 (Columbia)
- ROBERT ERVIN COKER, Ph.D., Sc.D., *Kenan Professor of Zoology*
S.B., 1896, S.M., 1897 (North Carolina); Ph.D., 1906 (Johns Hopkins); Sc.D. (South Carolina)
- WILLIAM CHAMBERS COKER, Ph.D., LL.D., D.Sc., *Kenan Research Professor of Botany, Emeritus*
B.S., 1894 (South Carolina); Ph.D., 1901 (Johns Hopkins); LL.D. (South Carolina); D.Sc. (North Carolina)
- DAN STEAD COLLINS, S.B., A.M., *Part-time Instructor in English*
S.B., 1941 (Pennsylvania); A.M., 1951 (North Carolina)
- OLAN VICTOR COOK, A.B., A.B. in L.S., *Associate Professor, Assistant Librarian, and Curator of Rare Books*
A.B., 1929, A.B. in L.S., 1932 (North Carolina)
- LAWRENCE F. COONEY, JR., B.A., *Lieutenant, United States Navy, Assistant Professor of Naval Science*
B.A., 1942 (Columbia)
- ALBERT DERWIN COOPER, A.B., M.D., *Visiting Associate Professor of Public Health*
A.B., 1932, M.D., 1931 (George Washington)
- WILLIAM MAURICE COPPRIDGE, M.D., *Instructor in Medicine*
M.D., 1918 (Jefferson Medical College)
- OLIVER KELLY CORNWELL, M.A., Ed.D., *Professor of Physical Education and Director of Physical Education for Men*
A.B., 1920 (Wittenberg); M.A., 1929 (Ohio State); Ed.D., 1948 (Catawba)
- DONALD PAUL COSTELLO, Ph.D., *Kenan Professor of Zoology*
A.B., 1930 (College of the City of Detroit); Ph.D., 1934 (Pennsylvania)
- LYMAN ATKINSON COTTEN, Ph.D., *Associate Professor of English*
A.B., 1936 (North Carolina); Ph.D., 1941 (Yale)
- JOHN NATHANIEL COUCH, Ph.D., Sc.D., *Kenan Professor of Botany*
A.B., 1919, A.M., 1922, Ph.D., 1924 (North Carolina); Sc.D., (Catawba College)

* Winter quarter, 1952.

- DUDLEY JOHNSTONE COWDEN, Ph.D., *Professor of Economic Statistics*
A.B., 1919 (Grinnell); A.M., 1922 (Chicago); Ph.D., 1931 (Columbia)
- PORTER COWLES, A.B., *Assistant Director of the University of North Carolina Press*
A.B., 1933 (North Carolina)
- *ROBERT V. COX, A.M., *Assistant Football Coach*
A.B., 1948, A.M., 1951 (North Carolina)
- HARDIN CRAIG, Ph.D., Litt.D., *Professor of English, Emeritus*
A.B., 1897 (Centre College); A.M., 1899, Ph.D., 1901 (Princeton); Litt.D. (Centre College); F.R.S.L.
- †ERNEST CRAIGE, A.B., M.D., *Assistant Professor of Medicine*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)
- HARRY WOLVEN CRANE, Ph.D., *Professor of Psychology and Psychological Consultant*
A.B., 1909, A.M., 1910, Ph.D., 1913 (Michigan)
- THOMAS E. CRAWLEY, A.B., *Part-time Instructor in English*
A.B., 1941 (Hampden-Sydney)
- WALTER DÉVEREUX CREECH, A.M., *Instructor in French*
A.B., 1928, A.M., 1930 (North Carolina); Certificate, University of Lyons (1932), University of Bordeaux (1933)
- HORACE DOWNS CROCKFORD, Ph.D., *Professor of Chemistry*
B.S., 1920 (North Carolina State); S.M., 1923, Ph.D., 1926 (North Carolina)
- WILLIAM JAMES CROMARTIE, M.D., *Associate Professor of Bacteriology and Director of the Bacteriological and Serological Laboratories*
M.D., 1937 (Emory)
- RICHARD RODNEY CROXTON, M.Ed., *Part-time Instructor in Mathematics*
B.S., 1941 (Newberry); M.Ed., 1947 (South Carolina)
- TIHAMER ZOLTAN CSAKY, M.D., *Assistant Professor of Pharmacology*
M.D., 1939 (University of Budapest, Hungary)
- WILLIAM OSRO CUMMINGS, B.S., C.L.U. *Julian Price Lecturer in Life Insurance*
B.S., 1938 (Pennsylvania); C.L.U., 1948 (American College of Life Underwriters)
- HORACE HERNDON CUNNINGHAM, A.M., *Part-time Instructor in Social Science and History*
A.B., 1936 (Atlantic Christian College); A.M., 1940 (North Carolina)
- WILLIAM LEE CUPP, M.A., *Part-time Instructor in Sociology and Social Science*
B.A., 1949, M.A., 1950 (State University of Iowa)
- RICHARD ERNEST DAHLBERG, A.B., *Part-time Instructor in Geography*
A.B., 1950 (George Washington)

* Resigned March 1, 1952.

† Beginning July, 1952.

- RUTH DALRYMPLE, R.N., M.S., *Associate Professor of Nursing*
B.S., 1937 (Muskingum); M.N., 1940, M.S., 1952 (Western Reserve)
- JOHN PERCY DALZELL, A.B., LL.B., *Professor of Law*
A.B., 1922, LL.B., 1924 (Minnesota)
- WILLIAM JOHN DANIEL, Ph.D., *Associate Professor of Psychology*
A.B., 1938 (Antioch College); Ph.D., 1942 (North Carolina)
- JOHN FREDERICK DASHIELL, Ph.D., Sc.D., *Kenan Professor of Psychology*
B.S., 1908, B.Litt., 1909, Sc.D., 1949 (Evansville College); M.S., 1910, Ph.D., 1913 (Columbia)
- ALEXANDER SHUFORD DAVIS, A.M., *Part-time Instructor in Mathematics*
A.B., 1947, A.M., 1952 (North Carolina)
- HARRY ELLERBE DAVIS, M.A., *Professor of Dramatic Art and Associate Director of The Carolina Playmakers*
A.B., 1927 (South Carolina); M.A., 1940 (Columbia)
- KENNETH REXTON DAVIS, Ph.B., M.B.A., *Assistant Professor of Marketing*
Ph.B., 1946, M.B.A., 1947 (Wisconsin)
- LAMBERT DAVIS, M.A., *Director of the University of North Carolina Press*
B.A., 1925, M.A., 1926 (Virginia)
- JOSEPH G. DAWSON, Ph.D., *Associate Professor of Psychology*
A.B., 1940 (North Carolina); A.M., 1947, Ph.D., 1949 (Chicago)
- FRANCIS BERNIEL DEDMOND, Th.M., M.A., *Part-time Instructor in English*
A.B., 1940 (Catawba); Th.M., 1945 (Southern Baptist Theological Seminary); M.A., 1950 (Duke)
- NICHOLAS JAY DEMERATH, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1934 (DePauw); A.M., 1938, Ph.D., 1942 (Harvard)
- WILLIAM WELLESLEY DEMERITT, D.D.S., *Professor of Pedodontics*
D.D.S., 1938 (Emory)
- WILLIAM THOMAS DEVINE, JR., B.S., LL.B., *Assistant Research Professor in Public Law and Government*
B.S., 1951, LL.B., 1951 (Wisconsin)
- WILLIAM MORTON DEY, Ph.D., *Kenan Professor of the Romance Languages and Literatures, Emeritus*
B.A., M.A., 1902 (Virginia); A.M., 1904, Ph.D., 1906 (Harvard); Chevalier of the Legion of Honor (France), 1949
- GEORGE O. DOAK, Ph.D., *Associate Professor of Experimental Medicine*
B.S. in Chemistry, 1929, B.S. in Pharmacy, 1930 (Saskatchewan); M.S., 1932, Ph.D., 1934 (Wisconsin)
- JAMES TALMAGE DOBBINS, Ph.D., *Professor of Chemistry*
A.B., 1911, A.M., 1912, Ph.D., 1914 (North Carolina)

- MARGARET BAGGETT DOLAN, R.N., B.S.P.H.N., *Assistant Professor of Public Health Nursing*
Diploma, 1935 (School of Nursing, Georgetown); R.N.; B.S.P.H.N., 1944 (North Carolina)
- LOUIS EDGAR DOLLARHIDE, A.M., *Part-time Instructor in English*
A.B., 1942 (Mississippi College); A.M., 1947 (Harvard)
- ARCH RICHARD DOOLEY, A.B., M.B.A., *Lecturer in Business Administration*
A.B., 1944 (Yale); M.B.A., 1950 (Harvard)
- *ELISHA PEAIRS DOUGLASS, Ph.D., *Assistant Professor of History*
A.B., 1939 (Princeton); M.S., 1941 (Columbia); Ph.D., 1949 (Yale)
- FRANK MARION DUFFEY, Ph.D., *Assistant Professor of Spanish*
A.B., 1938 (Miami University); A.M., 1940, Ph.D., 1950 (North Carolina)
- †DOUGLAS DUKE, Ph.D., *Assistant Professor of Astronomy*
B.A., 1947 (California); Ph.D., 1950 (Chicago)
- RICHARD LEE DUNCAN, B.A., *Part-time Instructor in Political Science*
B.A., 1948 (Antioch College)
- RUSSELL L. DUNLAP, Master in Letters, *Part-time Instructor in English*
B.S. (Educ.), 1936 (Slippery Rock State Teachers College); Master in Letters, 1940 (Pittsburgh)
- WILLIAM L. DUNLAP, *Master Sergeant, United States Air Force, Instructor in Air Science and Tactics*
- JOHN EDWARD DYKSTRA, C.E., M.B.A., D.C.S., *Professor of Business Administration*
C.E., 1930 (Rensselaer); M.B.A., 1932, D.C.S., 1936 (Harvard)
- CHARLES EDWARD EATON, A.M., *Assistant Professor of English*
A.B., 1936 (North Carolina); A.M., 1940 (Harvard)
- FLOYD HARRIS EDMISTER, Ph.D., *Professor of Chemistry and Adviser in the General College*
B.S., 1912, Ph.D., 1918 (Syracuse); M.S., 1913 (Louisiana State)
- FREDERICK LEE EDWARDS, B.S., *Commander, United States Navy, Associate Professor of Naval Science*
B.S., 1939 (Wake Forest)
- JOHN M. EHLE, JR., A.B., *Instructor in Radio*
A.B., 1949 (North Carolina)
- †NORMAN ELLSWORTH ELIASON, Ph.D., *Professor of English*
A.B., 1927 (Luther College); M.A., 1931 (Iowa); Ph.D., 1936 (Johns Hopkins)
- LUCILE MARSHALL ELLIOTT, B.Pd., *Law Librarian*
B.Pd., 1912 (Woman's College, U.N.C.)
- FRED WILSON ELLIS, Ph.D., M.D., *Associate Professor of Pharmacology*
B.S., 1936 (South Carolina); Ph.D., 1941 (Maryland); M.D., 1951 (Duke)

* Beginning September 1, 1952.

† Resigned December 31, 1951.

‡ Absent on leave, 1951-1952.

- G. GORDON ELLIS, Ph.D., *Associate Professor of Education*
A.B., 1937 (Iowa State Teachers College); M.A. 1940, Ph.D., 1948 (Wisconsin)
- WILLIAM ANDREW ELLISON, JR., A.M., *Associate Professor and Director of the Institute of Fisheries Research*
A.B., 1923, A.M., 1924 (Trinity College)
- STEPHEN ALBERT EMERY, Ph.D., *Professor of Philosophy*
A.B., 1923, Ph.D., 1928 (Cornell)
- SAMUEL THOMAS EMORY, Ph.D., *Professor of Geography*
A.B., 1917, A.M., 1918 (Randolph-Macon); M.A., 1921 (Columbia); Ph.D., 1939 (Chicago)
- WILLIAM LOUIS ENGELS, Ph.D., *Associate Professor of Zoology*
B.S., 1930 (Notre Dame); Ph.D., 1937 (California)
- ALFRED GARVIN ENGSTROM, Ph.D., *Professor of French*
A.B., 1933, A.M., 1935, Ph.D., 1941 (North Carolina)
- PRESTON HERSCHEL EPPS, Ph.D., *Professor of Greek*
A.B., 1915, A.M., 1917 (North Carolina); Ph.D., 1928 (Chicago)
- CHARLES PERRY ERICKSON, B.S. in Civ. Eng'g., *Assistant Director of Athletics and Instructor in Physical Education*
B.S. in Civ. Eng'g., 1931 (North Carolina)
- ROBERT BYRD ESPY, A.M., *Part-time Instructor in English*
A.B., 1940, A.M., 1941 (Washington and Lee)
- GEORGE HYNDMAN ESSER, JR., B.S., LL.B., *Associate Research Professor in Public Law and Government*
B.S., 1942 (Virginia Military Institute); LL.B., 1948 (Harvard)
- GEORGIA HICKS FAISON, A.B., B.L.S., *Reference Librarian*
A.B., 1911 (Woman's College, U.N.C.); B.L.S., 1924 (New York State Library School)
- PRESTON COOKE FARRAR, M.A., *Professor of Education, Emeritus*
A.B., 1891 (Washington and Jefferson); M.A., 1904 (Columbia)
- MAURICE LOUIS FELDMAN, A.B., *Part-time Instructor in English*
A.B., 1949 (Miami University)
- JOHN HOWARD FERGUSON, M.A., M.D., L.M.S.S.A., F.A.C.P., *Professor of Physiology*
B.A., 1921 (Capetown); B.A., 1925, M.A., 1931 (Oxford); M.D., 1928 (Harvard); L.M.S.S.A., 1931 (London); F.A.C.P., 1945
- ROBERT ALLISON FETZER, B.S., M.A., B.S. in Elec. and Mech. Eng'g., *Director of Physical Education and Athletics*
B.S., 1907, M.A., 1908 (Davidson College); B.S. in Elec. and Mech. Eng'g., 1909 (Clemson)
- *ARTHUR EMIL FINK, Ph.D., M.S.W., *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)

* Absent on leave, 1951-1952.

- RUTH WHITE FINK, A.M., *Associate Professor of Physical Education and Director of Physical Education for Women*
B.S., 1926, A.M., 1936 (Ohio State)
- FOSTER FITZ-SIMONS, A.B., *Assistant Professor of Dramatic Art*
A.B., 1934 (North Carolina)
- WOLFGANG BERNARD FLEISCHMANN, A.M., *Part-time Instructor in German*
B.A., 1950 (St. John's College); A.M., 1951 (North Carolina)
- RALPH GIBSON FLEMING, M.D., *Instructor in Medicine*
M.D., 1936 (Pennsylvania)
- WILLIAM LEROY FLEMING, A.B., M.S., M.D., *Professor of Preventive Medicine*
A.B., 1925, M.S., 1927, M.D., 1932 (Vanderbilt)
- WESTON FLINT, A.B., *Part-time Instructor in Spanish*
A.B., 1947 (Harvard)
- GERALDINE ALMA FOSTER, A.M., *Assistant Dean of the College of Arts and Sciences*
B.S., 1931 (St. Lawrence); A.M., 1942 (North Carolina)
- WILLIS FOSTER, A.B., *Part-time Instructor in Psychology*
A.B., 1950 (Louisiana State)
- FRANCES HILL FOX, A.B., M.D., *Instructor in Medicine*
A.B., 1931 (Duke); M.D., 1935 (Pennsylvania)
- HERBERT JUNIUS FOX, A.B., M.D., *Instructor in Medicine*
A.B., 1929 (North Carolina); M.D., 1935 (Duke)
- KEENER CHAPMAN FRAZER, A.M., *Professor of Political Science*
A.B., 1920 (Wofford); A.M., 1921 (North Carolina)
- *EDWARD EVERETT FREED, M.A., *Associate Professor of Motion Pictures in the Departments of Radio and Dramatic Art*
A.B., 1923 (Illinois); M.A., 1933 (Michigan)
- LEON DAVID FREEDMAN, Ph.D., *Assistant Professor of Experimental Medicine*
A.B., 1941, A.M., 1947, Ph.D., 1949 (Johns Hopkins)
- GEORGE EDWARD FRENCH, A.B., *Lieutenant Commander, United States Naval Reserve, Assistant Professor of Naval Science*
A.B., 1931 (North Carolina)
- WERNER PAUL FRIEDERICH, Ph.D., *Professor of German and Comparative Literature*
A.M., 1929, Ph.D., 1932 (Harvard)
- KARL HARTLEY FUSSLER, Ph.D., *Professor of Physics*
A.B., 1909 (Indiana); Ph.D., 1916 (Pennsylvania)
- LOFTON LEROY GARNER, A.M., *Associate Professor of Mathematics*
A.B., 1925, A.M., 1927 (North Carolina)

* Resigned March 17, 1952.

- ALLEN GARRETT, A.M., *Part-time Instructor in Music*
A.B., 1947, A.M., 1949 (North Carolina)
- MITCHELL BENNETT GARRETT, Ph.D., LL.D., *Professor of Modern European History*
A.B., 1900, A.M., 1903, LL.D., 1942 (Howard College); Ph.D., 1910 (Cornell)
- OSCAR DAVID GARVIN, M.D., M.P.H., *Visiting Assistant Professor of Public Health Administration*
M.D., 1932 (Medical College of the State of South Carolina); M.P.H., 1939 (Johns Hopkins)
- JAMES REUBEN GASKIN, A.B., *Acting Instructor in English*
A.B., 1942 (Chattanooga)
- LYNN GAULT, A.M., *Assistant Professor of Dramatic Art*
B.A., 1937 (Hiram College); A.M., 1939 (North Carolina)
- RICHARD JEROME GEEHERN, A.M., *Acting Instructor in English*
A.B., 1942 (Harvard); A.M., 1949 (North Carolina)
- WILLIAM MONROE GEER, M.A., *Instructor in Social Science and Research Associate in the Institute for Research in Social Science*
A.B., 1935 (The Citadel); M.A., 1936 (Emory)
- WESLEY CRITZ GEORGE, Ph.D., *Professor of Histology and Embryology*
A.B., 1911, A.M., 1912, Ph.D., 1918 (North Carolina)
- EDWARD HIRAM GIBSON, III, A.M., *Part-time Instructor in Social Science*
A.B., 1932, A.M., 1937 (North Carolina)
- J. SULLIVAN GIBSON, Ph.D., *Associate Professor of Geography*
B.A., 1926, (Abilene Christian College); Ph.M., 1929 (Wisconsin); Ph.D., 1934 (Clark)
- HUGO GIDUZ, A.B., *Professor of French*
A.B., 1905 (Harvard)
- ALICE JOHNSON GIFFORD, R.N., M.N., *Professor of Nursing*
B.A., 1935 (Woman's College, U.N.C.); M.N., 1938 (Yale); C.P.H.N., 1941 (Western Reserve)
- FEDERICO GUILLERMO GIL, J.D., D.Pol.Sci., D.Dip.Law, *Associate Professor of Political Science*
J.D., 1938, D.Pol.Sci., 1940, D.Dip.Law, 1941 (Habana)
- JAMES P. GILL, B.S., *Assistant Football Coach*
B.S., 1932 (Missouri University)
- * JOHN PHILIP GILLIN, Ph.D., *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)
- ALBERT B. GMINDER, A.B., *Part-time Instructor in Spanish*
A.B., 1949 (Catawba)
- † JAMES LOGAN GODFREY, Ph.D., *Professor of English History*
A.B., 1931 (Roanoke); A.M., 1933 (North Carolina); Ph.D., 1942 (Chicago)

* Absent on leave, fall and winter quarters, 1951-1952.

† Absent on leave, 1951-1952.

- WINFRED L. GODWIN, Ph.D., *Research Associate in the Institute for Research in Social Science*
A.B., 1948 (Birmingham-Southern); A.M., 1949, Ph.D., 1952 (North Carolina)
- WILLIAM FRANCIS GOODYKOONTZ, A.B., LL.B., *Part-time Instructor in English*
A.B., 1936, LL.B., 1940 (George Washington)
- LOYAL NORMAN GOULD, B.A., *Part-time Instructor in German*
B.A., 1951 (Florida State)
- RAYMOND FRANCIS GOULD, Ph.D., *Associate Professor of Social Work*
A.B., 1930 (Princeton); Diploma, 1940 (Columbia University, New York School of Social Work); Ph.D., 1951 (North Carolina)
- JOHN BORDEN GRAHAM, B.S., M.D., *Assistant Professor of Pathology*
B.S., 1938 (Davidson); M.D., 1942 (Cornell)
- *WILLARD J. GRAHAM, Ph.D., C.P.A., *Professor of Accounting*
A.B., 1921 (Tarkio College); A.M., 1924, Ph.D., 1934 (Chicago); C.P.A., 1925 (State of Illinois)
- WILLIAM ALEXANDER GRAHAM, A.B., M.D., *Lecturer in Obstetrics*
A.B., 1928 (North Carolina); M.D., 1932 (Pennsylvania)
- MARVIN LEROY GRANSTROM, M.S., *Assistant Professor of Sanitary Engineering*
B.S., 1942 (Morningside College, Iowa); B.S. Civ. Eng'g., 1943 (Iowa State); M.S., 1947 (Harvard)
- FLETCHER MELVIN GREEN, Ph.D., *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)
- JAMES ARNOLD GREEN, Ph.D., *Instructor in Anatomy*
B.A., 1941, Ph.D., 1950 (Illinois)
- PHILIP PALMER GREEN, JR., A.B., LL.B., *Associate Research Professor in Public Law and Government*
A.B., 1943 (Princeton); LL.B., 1949 (Harvard)
- BERNARD GEORGE GREENBERG, Ph.D., *Associate 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)
- E. INEZ GREENE, S.M., *Part-time Instructor in Physiology*
S.B., 1948, S.M., 1950 (North Carolina)
- JOHN THOMAS GREENE, B.D., M.A., *Part-time Instructor in Sociology*
B.A., 1936, B.D., 1938, M.A., 1940 (Duke)
- VICTOR AUGUST GREULACH, Ph.D., *Professor of Botany*
A.B., 1929 (DePauw); M.S., 1933, Ph.D., 1940 (Ohio State)
- JUNE U. GUNTER, A.B., M.D., *Instructor in Pathology and Director of Laboratories at Watts Hospital*
A.B., 1931 (North Carolina); M.D., 1936 (Jefferson Medical College)

* Beginning July, 1952.

- PAUL NEWMAN GUTHRIE, Ph.D., *Professor of Economics*
A.B., 1926 (Tennessee); B.D., 1932 (Union Theological Seminary); M.A., 1932, Ph.D., 1946 (Columbia)
- FRANZ GUTMANN, D.Ec., *Lecturer in Economics, Emeritus; Professor of Economics, Emeritus, University of Goettingen*
D.Ec., 1904, (Strasbourg)
- JOHN MINOR GWYNN, Ph.D., *Professor of Education*
A.B., 1918, A.M., 1927 (North Carolina); Ph.D., 1935 (Yale)
- WALTER ALEXIS HALL, JR., B.S., D.D.S., M.S., *Professor of Prosthodontics*
B.S., D.D.S., 1938 (Southern California); M.S., 1951 (Michigan)
- GEORGE CAVERNO HAM, M.D., *Professor of Psychiatry*
M.D., 1937 (Pennsylvania)
- JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph.D., Litt.D., *Kenan Professor of History and Political Science, Emeritus, and 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)
- FRANK WILLIAM HANFT, A.B., S.J.D., *Professor of Law*
LL.B., 1924, A.B., 1929, LL.M., 1929 (Minnesota); S.J.D., 1931 (Harvard)
- JACQUES HARDRÉ, Ph.D., *Assistant Professor of French*
Bacc.Sciences-Languages, 1936 (Paris); A.B., 1937 (Guilford); A.M., 1941, Ph.D., 1948 (North Carolina)
- JAMES PENROSE HARLAND, Ph.D., *Professor of Archaeology*
A.B., 1913, A.M., 1915, Ph.D., 1920 (Princeton)
- GEORGE MILLS HARPER, Ph.D., *Acting Instructor in English*
A.B., 1940 (Culver-Stockton College); A.M., 1947 (Florida); Ph.D., 1951 (North Carolina)
- FREDERICK HOLLADAY HARRIS, A.M., *Instructor in Social Science*
A.B., 1934 (Randolph-Macon); A.M., 1943 (North Carolina)
- MARGARET GRAVATT HARRIS, B.A., M.S.P.H., *Research Associate in Experimental Medicine*
B.A., 1945 (Woman's College, U.N.C.); M.S.P.H., 1947 (North Carolina)
- EARL HORACE HARTSELL, Ph.D., *Associate Professor of English*
A.B., 1924, A.M., 1935, Ph.D., 1942 (North Carolina)
- WALTER H. HARTUNG, Ph.D., *Professor of Pharmaceutical Chemistry*
A.B., 1918 (Minnesota); Ph.D., 1926 (Wisconsin)
- RUTH WARWICK HAY, R.N., M.S., *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)
- GLEN HAYDON, Ph.D., *Kenan Professor of Music*
A.B., 1918, A.M., 1921 (California); Ph.D., 1932 (Vienna)
- DONALD BALES HAYMAN, A.M., *Associate Research Professor in Public Law and Government*
A.B., 1940 (Kansas); A.M., 1947 (North Carolina)

- THEODORE HAZELWOOD, S.B., *Assistant Football Coach*
S.B., 1948 (North Carolina)
- GEORGE ALEXANDER HEARD, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
A.B., 1938 (North Carolina); M.A., 1948, Ph.D., 1951 (Columbia)
- BUNN HEARN, *Head Baseball Coach*
- MILTON SYDNEY HEATH, Ph.D., *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)
- EDWARD MCGOWAN HEDGPETH, A.B., M.D., F.A.C.P., *University Physician and Instructor in Medicine*
A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania); F.A.C.P., 1944
- CLARENCE HEER, Ph.D., *Kenan Professor of Economics*
A.B., 1914 (Rochester); Ph.D., 1926 (Columbia)
- WALTER RITTER HEILMAN, JR., M.A., *Part-time Instructor in Spanish*
B.A., 1939 (Davidson); M.A., 1949 (Tennessee)
- MONS WILLIAM HELLYER, JR., D.D.S., *Instructor in Prosthodontics*
D.D.S., 1951 (Emory)
- ARCHIBALD HENDERSON, Ph.D., D.C.L., LL.D., Litt.D., *Kenan Professor of Mathematics, Emeritus*
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)
- JAMES RICHARD HENDRICKS, Ph.D., *Assistant Professor of Parasitology*
B.S., 1940 (Guilford College); S.M., 1948, Ph.D., 1951 (North Carolina)
- CATHERINE HENLEY, Ph.D., *Research Associate in Zoology*
A.B., 1943, Ph.D., 1949 (North Carolina); M.A., 1947 (Johns Hopkins)
- DAVID FRANKLIN HERRING, B.S., *Part-time Instructor in Physics*
B.S., 1951 (Wake Forest)
- HARRIET LAURA HERRING, A.M., *Associate Professor of Sociology and Research Associate in the Institute for Research in Social Science*
A.B., 1913 (Meredith); A.M., 1918 (Radcliffe)
- *IVAN R. HERSHNER, JR., Ph.D., *Assistant Professor of Mathematics*
B.S., 1938, M.A., 1940 (Nebraska); A.M., 1941, Ph.D., 1947 (Harvard)
- EDWIN PEELE HIATT, Ph.D., M.D., *Associate Professor of Physiology*
A.B., 1933 (Wilmington College); M.A., 1934 (Haverford); Ph.D., 1940 (Maryland); M.D., 1951 (Duke)
- JAMES EDWARD HIBDON, M.A., *Part-time Instructor in Economics*
B.A., 1948, M.A., 1949 (Oklahoma)
- THOMAS FELIX HICKERSON, A.M., S.B., *Kenan Professor of Applied Mathematics*
Ph.B., 1904, A.M., 1907 (North Carolina); S.B. in Civ. Eng'g., 1909 (Massachusetts Institute of Technology)

* Absent on leave, 1951-1952.

- *JOHN B. HILL, Ph.D., *Assistant Professor of Pharmacology*
B.S., 1945 (Wisconsin); Ph.D., 1950 (Columbia)
- MICHAEL ARENDELL HILL, JR., A.M., *Professor of Mathematics and Associate Dean of the General College*
A.B., 1920, A.M., 1922 (North Carolina)
- REUBEN HILL, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
B.S., 1935 (Utah State); Ph.M., 1936, Ph.D., 1938 (Wisconsin)
- JOSEPH HILTON, A.M., *Assistant Track Coach*
A.B., 1940, A.M., 1948 (North Carolina)
- ALLAN WILSON HOBBS, Ph.D., *Professor of Applied Mathematics*
A.B., 1907 (Guilford College); A.B., 1908 (Haverford); Ph.D., 1917 (Johns Hopkins)
- RICHARD JUNIUS MENDENHALL HOBBS, A.B., LL.B., *Professor of Business Law*
A.B., 1909 (Guilford College); A.B., 1911 (Haverford); LL.B., 1914 (Columbia)
- SAMUEL HUNTINGTON HOBBS, JR., Ph.D., *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)
- WASSILY HOFFDING, Ph.D., *Assistant Professor of Mathematical Statistics*
Ph.D., 1940 (Berlin)
- MAUDE SHAW HOLLINGSWORTH, B.S., M.Ed., *Part-time Instructor in Education*
B.S., 1938 (Georgia Teachers College); M.Ed., 1947 (Georgia)
- C. HUGH HOLMAN, Ph.D., *Associate Professor of English*
B.S., 1936, B.A., 1938 (Presbyterian College); Ph.D., 1949 (North Carolina)
- URBAN TIGNER HOLMES, JR., Ph.D., Litt.D., *Kenan Professor of Romance Philology*
A.B., 1920 (Pennsylvania); A.M., 1921, Ph.D., 1923 (Harvard); Litt.D., (Washington and Lee)
- SAMUEL M. HOLTON, Ph.D., *Assistant Professor of Education*
A.B., 1942 (Duke); B.S., 1943 (New York); M.A., 1947 (Yale); M.Educ., 1947 (Duke); Ph.D., 1948 (Yale)
- JOHN J. HONIGMANN, Ph.D., *Associate Professor of Anthropology and Research Associate in the Institute for Research in Social Science*
A.B., 1942 (Brooklyn College); M.A., 1943, Ph.D., 1947 (Yale)
- CHARLES WRIGHT HOOKER, Ph.D., *Professor of Anatomy*
A.B., 1930, A.M., 1932, Ph.D., 1933 (Duke)
- GEORGE FREDERICK HORNER, Ph.D., *Associate Professor of English*
A.B., 1921, A.M., 1924 (Pennsylvania State); Ph.D., 1938 (North Carolina)

* Beginning July 1, 1952.

- HAROLD HOTELLING, Ph.D., *Professor of Mathematical Statistics and Associate Director, Institute of Statistics*
A.B., 1919, M.Sc., 1921 (Washington); Ph.D., 1924 (Princeton)
- *HENRY CHARLES HOUSE, Jr., A.M., *Associate Professor of Physical Education*
A.B., 1931, A.M., 1943 (North Carolina)
- WILLIAM ADDISON HOVER, A.M., *Part-time Instructor in French*
B.A., 1947 (Cincinnati); A.M., 1949 (North Carolina)
- ROBERT A. HOWARD, M.A., *Visiting Sculptor*
B.A., M.A., 1949 (Tulsa)
- ALMONTE CHARLES HOWELL, Ph.D., Prof. Hon., *Professor of English and Secretary of the Faculty*
A.B., 1917 (Denison); M.A., 1920 (Columbia); Ph.D., 1924 (North Carolina); Prof. Hon., 1948 (San Carlos, Guatemala)
- ROGER WILLIAM HOWELL, A.B., M.D., *Professor of Mental Health*
A.B., 1933, M.D., 1938 (Michigan)
- KENNETH LOOK HOY, B.S., *Part-time Instructor in Pharmacy*
B.S., 1950 (Wyoming)
- VINTON ASBURY HOYLE, Ph.D., *Professor of Mathematics*
A.B., 1924, A.M., 1925 (North Carolina); Ph.D., 1930 (Princeton)
- ARTHUR PALMER HUDSON, Ph.D., *Kenan Professor of English*
B.S., 1913, M.A., 1920 (Mississippi); A.M., 1925 (Chicago); Ph.D., 1930 (North Carolina)
- THEODORE LONG HUGUELET, A.M., *Part-time Instructor in English*
A.B., 1950, A.M., 1951 (Tennessee)
- DOUGLAS GEORGE HUMM, Ph.D., *Associate Professor of Zoology*
B.S., 1939 (Yale); Ph.D., 1948 (Stanford)
- MAEBURN BRUCE HUNEYCUTT, A.M., *Part-time Instructor in Botany*
A.B., 1946, A.M., 1949 (North Carolina)
- JACOB TATE HUNT, Ph.D., *Assistant Professor of Education*
B.A., 1938 (Maryville College); M.S., 1941 (Tennessee); Ph.D., 1950 (California)
- FLOYD GIBSON HUNTER, Ph.D., *Associate Professor of Social Work*
B.A., 1939, M.A., 1941 (Chicago); Ph.D., 1951 (North Carolina)
- KERMIT HOUSTON HUNTER, A.M., *Part-time Instructor in English*
A.B., 1931 (Ohio State); A.M., 1949 (North Carolina)
- MILTON HUPPERT, B.S., *Instructor in Bacteriology*
B.S., 1940 (College of the City of New York)
- ALLAN S. HURLBURT, Ph.D., *Director of Bureau of Educational Research and Service*
B.A., 1933, M.A., 1937, Ph.D., 1947 (Cornell)
- HOWARD RUSSELL HUSE, Ph.D., *Professor of French and Italian*
Ph.B., 1913, Ph.D., 1930 (Chicago)

* Absent on leave, 1951-1952.

- DORIS HUTCHINSON, A.M., *Assistant Professor of Physical Education*
B.S., 1939 (Woman's College, U.N.C.); A.M., 1947 (North Carolina)
- ROY LEE INGRAM, Ph.D., *Associate Professor of Geology*
S.B. in Geol., 1941 (North Carolina); M.S. in Geol. and Phys., 1943 (Oklahoma);
Ph.D., 1948 (Wisconsin)
- J. LOGAN IRVIN, Ph.D., *Associate Professor of Biological Chemistry and Nutrition*
B.S., 1934 (South Carolina); Ph.D., 1938 (Pennsylvania)
- HANS H. JAFFE, M.S., *Instructor in Experimental Medicine*
B.S., 1941 (Iowa); M.S., 1942 (Purdue)
- RICHARD ELMER JAMERSON, Ed.D., *Professor of Physical Education*
B.S. in Phys. Educa., 1932 (Rice); M.A. in Phys. Educa., 1934, Ed.D., 1949
(Teachers College, Columbia)
- WILLIAM SUMNER JENKINS, Ph.D., LL.B., *Professor of Political Science*
A.B., 1924, A.M., 1925, Ph.D., 1927, LL.B., 1931 (North Carolina); M.A. in
Military Government, 1943 (Columbia)
- WILMER MITCHELL JENKINS, M.Ed., *Visiting Lecturer in Education*
B.S., 1931 (Wake Forest); M.Ed., 1945 (Duke)
- CHARLES EDWIN JENNER, Ph.D., *Assistant Professor of Zoology*
A.B., 1941 (Central College); A.M., 1949, Ph.D., 1951 (Harvard)
- RICHARD JENTE, Ph.D., *Professor of Germanic Languages and Literatures*
A.B., 1910, A.M., 1911 (Yale); Ph.D., 1917 (Heidelberg)
- KATHARINE JOCHER, Ph.D., *Professor of Sociology and Assistant Director of the Institute for Research in Social Science*
A.B., 1922 (Goucher College); A.M., 1923 (Pennsylvania); Ph.D., 1929 (North Carolina)
- CECIL JOHNSON, Ph.D., *Professor of History and Associate Dean of the General College*
A.B., 1922 (Mississippi College); M.A., 1924 (Virginia); Ph.D., 1932 (Yale)
- GUY BENTON JOHNSON, Ph.D., *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)
- CLAIBORNE STRIBLING JONES, Ph.D., *Associate Professor of Zoology and Adviser in the General College*
A.B., 1935 (Hampden-Sydney); M.A., 1940, Ph.D., 1944 (Virginia)
- FLOYD BURTON JONES, Ph.D., *Professor of Mathematics*
B.A., 1932, Ph.D., 1935 (Texas)
- JOHN JONES, JR., M.A., *Part-time Instructor in Mathematics*
B.S., 1941, M.A., 1946 (Peabody)
- ARTHUR MELVILLE JORDAN, Ph.D., *Professor of Educational Psychology*
A.B., 1907 (Randolph-Macon); A.M., 1909 (Trinity College); Ph.D., 1919
(Columbia)

- ALBERT WILLOUGHBY JOWDY, JR., S.M., *Instructor in Pharmacy*
S.B. in Phar., 1943, S.M., 1949 (North Carolina)
- KAI JURGENSEN, A.M., *Associate Professor of Dramatic Art*
A.B., 1937 (Montana); A.M., 1943 (North Carolina)
- *CHARLES JUSTICE, *Assistant Football Coach*
- GEORGE KACHERGIS, M.F.A., *Assistant Professor of Art*
B.F.A., 1946, M.F.A., 1948 (The Art Institute of Chicago)
- MARGARET ELLEN KALP, B.A., M.A. in L.S., *Assistant Professor of Library Science*
B.A., 1936 (New Jersey College for Women); M.A. in L.S., 1942 (Michigan)
- LOUIS OSGOOD KATTSOFF, Ph.D., *Professor of Philosophy*
A.B., 1929, A.M., 1930, Ph.D., 1934 (Pennsylvania)
- CORNELIUS TIMPSON KAYLOR, Ph.D., *Associate Professor of Anatomy*
A.B., 1931 (Wesleyan); M.S., 1933 (Rutgers); Ph.D., 1936 (Princeton)
- JOHN STUART KEATING, M.S., *Captain, United States Navy, Professor of Naval Science*
B.S., 1923 (U. S. Naval Academy); M.S., 1930 (Columbia)
- †ALAN KEITH-LUCAS, M.A., M.Sc. (Soc.Admin.), *Associate Professor of Social Work*
B.A., 1931, M.A., 1935 (Trinity College, Cambridge); M.Sc. (Soc. Admin.), 1939 (Western Reserve)
- MARY FRANCES KELLAM, B.S., A.M., *Instructor in Physical Education*
B.S., 1944 (Woman's College, U.N.C.); A.M., 1948 (North Carolina)
- JOHN ESTEN KELLER, Ph.D., *Assistant Professor of Spanish*
B.A., 1940, M.A., 1942 (Kentucky); Ph.D., 1946 (North Carolina)
- LUCILE KELLING, A.B., B.L.S., *Professor of Library Science*
A.B., 1917 (Whitman College); B.L.S., 1921 (New York State Library School)
- GILBERT L. KELSO, B.A., M.P.H., *Associate Professor of Sanitation in the Department of Field Training*
B.A., 1929 (Iowa); M.P.H., 1942 (Minnesota)
- ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Professor of Nursing and Dean of the School of Nursing.*
Diploma in Nursing, 1927 (College of Nursing and Health, Cincinnati, Ohio); B.S., 1940 (New York University); M.A., 1943, Ed.D., 1948 (Teacher's College, Columbia)
- JOHN FAWCETT KENFIELD, *Instructor in Physical Education*
- ALPHA K. KENNY, *Instructor in Public Health Records*
- ROSEMARY MAY KENT, Ph.D., *Associate Professor of Public Health Education*
A.B., 1933 (Agnes Scott); M.A., 1934 (Emory); M.P.H., 1946, Ph.D., 1949 (North Carolina)

* Resigned March 1, 1952.

† Acting Dean of the School of Social Work, September 1, 1951-June 30, 1952.

- MAURICE ARTHUR KIDDER, B.A., S.T.M., *James A. Gray Lecturer in Religion*
 B.A., 1935 (New Hampshire); S.T.B., 1938 (Boston); S.T.M., 1946 (Yale)
- FRANK EFIRD KINARD, S.M., *Part-time Instructor in Physics*
 A.B., 1947 (Newberry); S.M., 1950 (North Carolina)
- ARNOLD KIMSEY KING, Ph.D., *Professor of Education and Associate Dean of the Graduate School*
 A.B., 1925 (North Carolina); A.M., 1927, Ph.D., 1951 (Chicago)
- HARRY LEE KING, JR., B.A., *Part-time Instructor in Spanish*
 B.A., 1936 (Richmond)
- JAMES EDWARD KING, JR., Ph.D., *Assistant Professor of History and Social Science*
 B.A., 1938 (Richmond); Ph.D., 1947 (Johns Hopkins)
- CHARLES ATKINSON KIRKPATRICK, D.C.S., *Associate Professor of Marketing*
 A.B., 1928, A.M., 1929 (Duke); D.C.S., 1933 (New York University)
- FRANK WYSOR KLINGBERG, Ph.D., *Assistant Professor of History*
 B.A., 1941, Ph.D., 1948 (U.C.L.A.)
- EDGAR WALLACE KNIGHT, Ph.D., *Kenan Professor of Education*
 A.B., 1909, A.M., 1911 (Trinity College); Ph.D., 1913 (Columbia)
- SAMUEL BRADLEY KNIGHT, Ph.D., *Professor of Chemistry*
 B.S., 1934 (Clemson); S.M., 1937, Ph.D., 1938 (North Carolina)
- KERRO KNOX, Ph.D., *Instructor in Chemistry*
 B.S., 1945, Ph.D., 1950 (Yale)
- WILLIAM J. KOCH, A.M., *Part-time Instructor in Botany*
 A.B., 1947, A.M., 1950 (North Carolina)
- MYRON L. KOCHER, M.A., *Part-time Instructor in French*
 A.B., 1948 (Wake Forest); M.A., 1949 (Middlebury)
- *FRANK JOSEPH KOTTKE, Ph.D., *Associate Professor of Economics*
 A.B., 1937, A.M., 1938 (Northwestern); Ph.D., 1944 (Columbia)
- †WESTON LA BARRE, Ph.D., *Visiting Professor of Anthropology*
 A.B., 1933 (Princeton); Ph.D., 1937 (Yale)
- HASELL THOMAS LABORDE, A.M., *Part-time Instructor in Mathematics*
 A.B., 1942, A.M., 1948 (South Carolina)
- WALLACE LAMBERT, M.A., *Part-time Instructor in Psychology*
 A.B., 1947 (Brown); M.A., 1950 (Colgate)
- GEORGE SHERMAN LANE, Ph.D., *Kenan Professor of Germanic and Comparative Linguistics*
 B.A., 1926, M.A., 1927 (Iowa); Ph.D., 1930 (Chicago)
- ROBERT DANA LANGDELL, M.D., *Instructor in Pathology*
 M.D., 1948 (George Washington)

* Absent on leave for one year, beginning spring quarter, 1951.

† Fall quarter, 1951.

- JOHN EDGAR LARSH, JR., Sc.D., *Professor of Parasitology*
A.B., 1939, M.S., 1940 (Illinois); Sc.D., 1943 (Johns Hopkins)
- JOHN WAYNE LASLEY, JR., Ph.D., *Professor of Pure Mathematics*
A.B., 1910, A.M., 1911 (North Carolina); Ph.D., 1920 (Chicago)
- THOMAS J. LASSITER, A.B., *Associate Professor of Journalism*
A.B., 1932 (Duke)
- ROBERT BAKER LAWSON, M.D., *Professor of Physical Education, Emeritus*
Student, 1897-1900 (North Carolina); M.D., 1902 (Maryland)
- STURGIS ELLENO LEAVITT, Ph.D., Litt.D., *Kenan Professor of Spanish*
A.B., 1908 (Bowdoin); A.M., 1913, Ph.D., 1917 (Harvard); Litt.D., (Bowdoin, Davidson)
- FRANK LEBAR, Ph.D., *Assistant Professor of Anthropology and Research Associate in the Institute for Research in Social Science*
B.A., 1942, Ph.D., 1951 (Yale)
- HUGH TALMAGE LEFLER, Ph.D., *Professor of History*
A.B., 1921, A.M., 1922 (Trinity College); Ph.D., 1931 (Pennsylvania)
- HARVEY EUGENE LEHMAN, Ph.D., *Associate Professor of Zoology*
A.B., 1941 (Maryville College); A.M., 1944 (North Carolina); Ph.D., 1948 (Stanford)
- ROBERT BENJAMIN LESSEM, A.B., D.D.S., *Part-time Clinical Instructor in Prosthodontics*
A.B., 1937 (North Carolina); D.D.S., 1941 (Atlanta-Southern Dental College)
- BERNARD LEVIN, B.A., *Part-time Instructor in Psychology*
B.A., 1951 (Colgate)
- HENRY WILKINS LEWIS, A.B., LL.B., *Research Professor in Public Law and Government*
A.B., 1937 (North Carolina); LL.B., 1940 (Harvard)
- *RODDEY M. LIGON, JR., S.B., LL.B., *Assistant Research Professor in Public Law and Government*
S.B., 1949, LL.B., 1951 (North Carolina)
- †SEGUNDO V. LINARES-QUINTANA, J.D., *Burton Craige Visiting Professor of Jurisprudence*
LL.B., 1933, J.D., 1937 (University of Buenos Aires)
- ROBERT BOYD LINDSAY, M.D., *Associate University Physician and Instructor in Medicine*
B.S., 1936 (Davidson); M.D., 1940 (Jefferson)
- JOE BURTON LINKER, Ph.D., *Professor of Mathematics*
A.B., 1918, A.M., 1920 (North Carolina); Ph.D., 1924 (Johns Hopkins)
- ROBERT WHITE LINKER, Ph.D., *Professor of French*
A.B., 1925, A.M., 1928, Ph.D., 1933 (North Carolina)

* Absent on leave for military duty.

† Fall quarter, 1951.

- ISAAC THOMAS LITTLETON, M.A., M.S. in L.S., *Circulation Librarian*
A.B., 1943 (North Carolina); M.A., 1950 (Tennessee); M.S. in L.S., 1951 (Illinois)
- BYRON EUGENE LOGAN, M.A., *Part-time Instructor in Geography*
B.A., 1950 (DePauw); M.A., 1952 (Colorado)
- CLEMENT SEARL LOGSDON, Ph.D., *Professor of Marketing and Research*
Professor in the Institute for Research in Social Science
B.S., 1924 (Georgetown); M.A., 1928, Ph.D., 1940 (Ohio State)
- ARTHUR HILL LONDON, S.B., M.D., *Lecturer in Pediatrics*
S.B., 1925 (North Carolina); M.D., 1927 (Pennsylvania)
- EUGENE ROBERT LONG, Ph.D., *Assistant Professor of Psychology*
A.B., 1946, M.A., 1947, Ph.D., 1950 (Virginia)
- FITZ LUTZ, *Head Athletic Trainer*
- CLIFFORD PIERSON LYONS, Ph.D., *Professor of English and Dean of the*
College of Arts and Sciences
A.B., 1925 (Cornell College); Ph.D., 1932 (Johns Hopkins)
- JOHN CORIDEN LYONS, Ph.D., *Professor of Romance Languages*
B.S., 1920, M.A., 1921 (William and Mary); Ph.D., 1927 (North Carolina)
- LOUIS F. MCAULEY, M.S., *Part-time Instructor in Mathematics*
B.S., 1949, M.S., 1950 (Oklahoma A. and M.)
- FREDERICK BAYS MCCALL, A.B., LL.B., *Professor of Law*
A.B., 1915 (North Carolina); LL.B., 1928 (Yale)
- WILLIAM GREER MCCALL, A.B., *Part-time Instructor in Political Science and Social Science*
A.B., 1950 (North Carolina)
- GERALD RALEIGH MACCARTHY, Ph.D., *Professor of Geology and Geophysics*
A.B., 1921 (Cornell); A.M., 1924, Ph.D., 1926 (North Carolina)
- JOSEPH PICKETT MCCrackEN, M.D., *Instructor in Medicine*
M.D., 1937 (Duke)
- HAROLD GRIER MCCURDY, Ph.D., *Associate Professor of Psychology and*
Research Associate in the Institute for Research in Social Science
A.B., 1930, Ph.D., 1938 (Duke)
- DOROTHY MCCUSKEY, Ph.D., *Associate Professor of Education*
A.B., 1929 (College of Wooster); M.A., 1930 (Radcliffe); Ph.D., 1936 (Yale)
- WILLIAM BENSON MCCUTCHEON, M.D., *Lecturer in Surgery*
M.D., 1921 (Medical College of Virginia)
- EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *Professor of Epidemiology and Dean of the School of Public Health*
A.B., 1924 (Butler University); M.D., 1928 (Harvard Medical School); M.P.H., 1935 (Harvard School of Public Health)

- *DAN MAYS MCGILL, Ph.D., C.L.U., *Julian Price Associate Professor of Life Insurance*
 A.B., 1940 (Maryville); A.M., 1941 (Vanderbilt); Ph.D., 1947 (Pennsylvania);
 C.L.U., 1950 (American College of Life Underwriters)
- CLARENCE HENRY MCGREGOR, Ph.D., *Professor of Marketing*
 B.S., 1925 (Kansas State Teachers College of Emporia); M.B.A., 1930 (Kansas);
 Ph.D., 1937 (Northwestern)
- ERNEST WILLIAM MACHEN, JR., A.B., J.D., *Associate Research Professor in Public Law and Government*
 A.B., 1943 (Stetson); J.D., 1949 (North Carolina)
- ROBERT LAMBERT MCKEE, Ph.D., *Associate Professor of Chemistry*
 B.S., 1938 (Rice); M.A., 1940, Ph.D., 1943 (Texas)
- WILLIAM JOHN MCKEE, Ph.D., *Professor of Education in Extension Teaching*
 C.E., 1909 (Cornell); M.A., 1919, Ph.D., 1930 (Columbia)
- ERNEST LLOYD MACKIE, Ph.D., *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, Ph.D., *Professor of Medieval History*
 A.B., 1913 (Lawrence College); A.M., 1916 (Wisconsin); Ph.D., 1925 (Chicago)
- CATHERINE FRANCES MACKINNON, A.B., M.S., *Associate Professor of Public Health Nutrition*
 A.B., 1924 (Montana State University); M.S., 1936 (Michigan)
- WILLIAM ALBERT MCKNIGHT, Ph.D., *Assistant Professor of Spanish*
 B.S., 1932 (Davidson); A.M., 1937, Ph.D., 1951 (North Carolina)
- CHARLOTTE POPE MCLEOD, Sc.D., *Assistant Professor of Experimental Medicine*
 B.S., 1936 (Miami); Sc.D., 1939 (Johns Hopkins)
- JOHN BLOUNT MACLEOD, A.M., LL.B., *Instructor in Social Science*
 LL.B., 1922 (Wake Forest); A.B., 1939, A.M., 1947 (North Carolina)
- JOHN ALEXANDER MCMAHON, A.B., LL.B., *Associate Research Professor in Public Law and Government*
 A.B., 1942 (Duke); LL.B., 1948 (Harvard)
- DOUGALD MACMILLAN, Ph.D., *Kenan Professor of English*
 A.B., 1918, A.M., 1920, Ph.D., 1925 (North Carolina)
- †WILLIAM DEBERNIERE MACNIDER, M.D., Sc.D., LL.D., *Kenan Research Professor of Pharmacology, Emeritus*
 M.D., 1903 (North Carolina); Sc.D. (Medical College of Virginia); LL.D. (Davidson)
- DANIEL ALLEN MACPHERSON, Ph.D., *Professor of Bacteriology*
 Ph.B., 1919, Sc.M., 1920 (Brown); Ph.D., 1929 (Chicago)

* Absent on leave for military duty.

† Died May 31, 1951.

- HAROLD JOSEPH MAGNUSON, A.B., M.D., M.P.H., *Research Professor of Experimental Medicine*
A.B., 1934, M.D., 1938 (Southern California); M.P.H., 1942 (Johns Hopkins)
- GEORGE PHILIP MANIRE, Ph.D., *Associate Professor of Bacteriology*
B.S., 1940, M.S., 1941 (North Texas State Teachers College); Ph.D., 1949 (California)
- VIRGIL I. MANN, Ph.D., *Assistant Professor of Geology*
B.A., 1942 (Macalester College); Ph.D., 1950 (Wisconsin)
- WILLIAM ROBERT MANN, Ph.D., *Assistant Professor of Mathematics*
A.B., 1941 (Rochester); Ph.D., 1949 (California)
- ISAAC HALL MANNING, JR., A.B., M.D., *Instructor in Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Harvard)
- EDWIN CARLYLE MARKHAM, Ph.D., *Smith Professor of Chemistry*
A.B., 1923 (Trinity College); Ph.D., 1927 (Virginia)
- CHARLES C. MARTIN, A.M., *Part-time Instructor in Social Science and History*
S.B., 1948, A.M., 1949 (North Carolina)
- FREDERICK CARLYLE MARTIN, A.M., *Part-time Instructor in Spanish*
A.B., 1947, A.M., 1948 (Emory)
- ALBERT VICTOR HUGO MASKET, Ph.D., *Associate Professor of Physics*
B.S., 1935 (New York University); M.S., 1936, Ph.D., 1938 (Virginia)
- WILTON MASON, Ph.D., *Assistant Professor of Music*
A.B., 1937, A.M., 1947, Ph.D., 1949 (North Carolina)
- ELTA MAE MAST, B.Ed., M.S.P.H., *Assistant Professor of Public Health Education*
B.Ed., 1942 (Illinois State Normal University); M.S.P.H., 1945 (North Carolina)
- JOSEPH A. MATTHEWS, B.S., *Lieutenant Commander, United States Navy, Assistant Professor of Naval Science*
B.S., 1937 (Florence State Teachers College)
- NORMAN W. MATTIS, M.A., *Associate Professor of English*
A.B., 1926 (Pittsburgh); M.A., 1929 (Cornell)
- WILLIAM T. MEADE, A.M., *Instructor in Physical Education*
B.S., 1949 (Pennsylvania State); A.M., 1950 (North Carolina)
- JOSEPH T. MEERS, M.S., *Part-time Instructor in Physics*
B.S., 1944 (Western Kentucky State College); M.S., 1947 (Kentucky)
- HAROLD DIEDRICH MEYER, A.M., LL.D., R.S.D., L.H.D., *Professor of Sociology*
A.B., 1912, A.M., 1916 (Georgia); LL.D., (Florida Southern College); R.S.D. (Salem College, Salem, W. Va.); L.H.D. (Catawba)
- EDWIN A. MILES, A.M., *Part-time Instructor in Social Science*
A.B., 1948 (Birmingham-Southern); A.M., 1949 (North Carolina)
- AUGUSTUS TAYLOR MILLER, JR., Ph.D., *Professor of Physiology and Director of Laboratory of Applied Physiology*
B.S., 1931, M.S., 1933 (Emory); Ph.D., 1939 (Michigan)

- HENRY CONRAD MILLER, JR., M.A., M.S., *Part-time Instructor in Mathematics*
 B.A., 1944 (Howard College); M.A., 1948 (Alabama); M.S., 1949 (Chicago)
- MARY FRANCES MINTON, M.A., *Instructor in English*
 A.B., 1942, M.A., 1948 (Southern Methodist)
- MONTE GEORGE MISKA, D.D.S., *Associate Professor of Fixed Partial Dentures*
 D.D.S., 1937 (Minnesota)
- DAVID GEETING MONROE, LL.B., Ph.D., *Associate Professor of Political Science*
 LL.B., 1926 (Baldwin-Wallace College); Ph.B., 1930 (Chicago); Ph.D., 1940 (Northwestern)
- FRANK HARPER MOORE, A.M., *Acting Instructor in English*
 A.B., 1943 (Florida); A.M., 1948 (North Carolina)
- JESSE J. MOORHEAD, B.S., *Lieutenant Colonel, United States Air Force, Professor of Air Science and Tactics*
 B.S., 1937 (Clemson)
- LUCY SHIELDS MORGAN, Ph.D., *Professor of Public Health Education*
 A.B., 1922, M.S., 1932 (Tennessee); M.A., 1929 (Columbia); Ph.D., 1938 (Yale)
- WILLIAM GARDNER MORGAN, A.B., M.D., *Associate University Physician and Instructor in Medicine*
 A.B., 1927 (North Carolina); M.D., 1931 (Pennsylvania)
- JOSEPH L. MORRISON, A.B., *Assistant Professor of Journalism*
 A.B., 1940 (North Carolina)
- JOHN CHARLES MORROW, III, Ph.D., *Assistant Professor of Chemistry*
 S.B., 1944 (North Carolina); Ph.D., 1949 (Massachusetts Institute of Technology)
- ERNST MORWITZ, Dr. jur., *Lecturer in German*
 Dr. juris utriusque, 1910 (Heidelberg)
- ANNA LYDIA MOTTO, M.A., *Part-time Instructor in Latin*
 B.A., 1946 (Queen's College, New York); M.A., 1948 (New York University)
- OLIN TERRELL MOUZON, Ph.D., *Professor of Economics*
 B.S. in Commerce, 1933 (Southern Methodist); Ph.D., 1940 (North Carolina)
- PAUL HILDNER MUEHLKE, A.B., *Part-time Instructor in Physiology*
 A.B., 1949 (New York University)
- CLYDE EDWARD MULLIS, A.M., *Associate Professor of Physical Education*
 A.B., 1938, A.M., 1940 (North Carolina)
- ROBERT J. MURPHY, B.S., M.D., *Visiting Assistant Professor of Public Health Administration*
 B.S., 1936 (State College, Tennessee); M.D., 1940 (Vanderbilt)
- LOLA LEE MUSTARD, A.B., *Instructor in Journalism*
 A.B., 1948 (North Carolina)
- EDWARD WILLIAM NAJAM, M.A., *Part-time Instructor in French*
 A.B., 1938 (Bowdoin); M.A., 1950 (Duke)

- ARNOLD SAMUEL NASH, M.Sc., M.A., M.Sc.Econ., D.D., *James A. Gray Professor of the History of Religion*
B.Sc., 1928, M.Sc., 1930, M.A., 1933 (Liverpool); M.Sc.Econ., 1937 (London); D.D., 1946 (Coe College)
- ETHEL M. NASH, A.M., *Lecturer in Sociology*
B.A., 1931 (Liverpool); A.M., 1949 (North Carolina)
- EDWARD J. NAUSS, A.B., *Part-time Instructor in Philosophy*
A.B., 1949 (Macalester College)
- KENNETH NESS, *Resident Artist and Professor of Art*
Diploma, 1932 (The Art Institute of Chicago)
- SANFORD H. NEWELL, JR., A.B., *Part-time Instructor in French*
A.B., 1950 (Millsaps)
- WILLIAM S. NEWMAN, Ph.D., *Associate Professor of Music*
B.S., 1933, M.A., 1935, Ph.D., 1939 (Western Reserve)
- *ALBERT RAY NEWSOME, Ph.D., *Professor of History*
A.B., 1915 (North Carolina); M.A., 1922, Ph.D., 1929 (Michigan)
- GEORGE EDWARD NICHOLSON, JR., Ph.D., *Associate Professor in the Institute of Statistics and Research Associate in the Institute for Research in Social Science*
A.B., 1940, A.M., 1941, Ph.D., 1948 (North Carolina)
- EDWARD WILLIAM NOLAND, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1930, M.A., 1936 (West Virginia); Ph.D., 1944 (Cornell)
- JOHN WILLIAM ROY NORTON, A.B., M.D., M.P.H., *Visiting Associate Professor of Public Health*
A.B., 1920 (Duke); M.D., 1928 (Vanderbilt); M.P.H., 1936 (Harvard School of Public Health)
- WILLIAM C. NUNGESSER, S.M., *Part-time Instructor in Physiology*
S.B., 1949, S.M., 1951 (North Carolina)
- HOWARD WASHINGTON ODUM, Ph.D., LL.D., Litt.D., L.H.D., *Kenan Professor of Sociology and Research Professor in the Institute for Research in Social Science*
A.B., 1904 (Emory); A.M., 1906 (Mississippi); Ph.D., 1909 (Clark); Ph.D., 1910 (Columbia); LL.D., (Emory, Harvard); Litt.D. (College of the Ozarks); L.H.D. (Clark)
- WILLIAM ANDERSON OLSEN, A.M., *Professor of English*
A.B., 1923 (Cornell); A.M., 1928 (North Carolina)
- JOHN TETTEMER O'NEIL, Ph.D., *Associate Professor of Finance and Assistant Dean of the School of Business Administration*
S.B., 1934 (North Carolina); M.B.A., 1936 (Harvard); Ph.D., 1948 (Northwestern)
- MARK TAYLOR ORR, A.B., *Lieutenant Colonel, United States Air Force, Associate Professor of Air Science and Tactics*
A.B., 1937 (North Carolina)

* Died August 5, 1951.

- GUY OWEN, JR., A.M., *Part-time Instructor in English*
A.B., 1947, A.M., 1949 (North Carolina)
- EVERETT D. PALMATIER, Ph.D., *Assistant Professor of Physics*
B.Sc., 1938 (Manitoba); Ph.D., 1951 (Cornell)
- *JEFFRESS GARY PALMER, B.S., M.D., *Assistant Professor of Medicine*
B.S., 1942, M.D., 1944 (Emory)
- JOHN ALBERT PARKER, S.B., M.Arch., M.C.P., *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)
- J. ROY PARKER, A.B., *Professor of Journalism, Emeritus*
A.B., 1915 (Wake Forest)
- JOHN WILLIAM PARKER, A.M., *Professor of Dramatic Art*
A.B. in Educ., 1930, A.M., 1937 (North Carolina)
- MAURICE FRANK PARKINS, B.S., B.L.A., M.C.P., *Research Associate in the Institute for Research in Social Science*
B.S., 1933 (National Agricultural College); B.L.A., 1939 (Pennsylvania); M.C.P., 1949 (Massachusetts Institute of Technology)
- HAROLD FRANCIS PARKS, Ph.D., *Instructor in Anatomy*
B.Ed., 1942 (Southern Illinois Normal University); Ph.D., 1950 (Cornell)
- JAMES MILTON PARRISH, M.S., *Instructor in Economics*
B.S., 1943, M.S., 1948 (Alabama)
- GEORGE STEVEN PARTHEMOS, M.A., *Part-time Instructor in Political Science*
A.B., 1946 (Erskine); M.A., 1950 (South Carolina)
- FRED GEER PATTERSON, A.B., M.D., *Instructor in Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Pennsylvania)
- HUBERT CLIFTON PATTERSON, JR., A.B., M.D., *Instructor in Anatomy*
A.B., 1936 (Duke); M.D., 1937 (Harvard)
- THOMAS McEVROY PATTERSON, A.M., *Assistant Professor of Dramatic Art*
A.B., 1934, A.M., 1936 (Texas)
- JAMES WELCH PATTON, Ph.D., *Professor of History and Director of the Southern Historical Collection*
A.B., 1924 (Vanderbilt); A.M., 1925, Ph.D., 1929 (North Carolina)
- LEE PAUL, B.S., *Part-time Instructor in Psychology*
B.S., 1950 (Michigan)
- ERLE EWART PEACOCK, M.B.A., C.P.A., *Professor of Accounting*
A.B., 1914 (Georgia); M.B.A., 1916 (Harvard); C.P.A. (State of North Carolina)
- WILLIAM HENRY PEACOCK, Ph.D., *Associate Professor of Physical Education*
A.B., 1932 (Maryville College); A.M., 1940, Ph.D., 1945 (North Carolina)

* Beginning July 1, 1952.

- JOHN HUNTER PEAK, A.M., *Part-time Instructor in Spanish*
A.B., 1941 (Hampden-Sydney); A.M., 1950 (North Carolina)
- RICHARD LEHMER PEARSE, M.D., *Lecturer in Obstetrics*
M.D., 1931 (Harvard)
- FRANCES MITCHELL PEDIGO, A.M., *Acting Instructor in English*
A.B., 1932 (Florida State College for Women); A.M., 1946 (North Carolina)
- TALMAGE LEE PEELE, A.B., M.D., *Visiting Lecturer in Neurology*
A.B., 1929, M.D., 1934 (Duke)
- CARL HAMILTON PEGG, Ph.D., *Professor of History*
A.B. in Educ., 1927, A.M., 1927, Ph.D., 1930 (North Carolina)
- JEAN HOWARD PELLEGRIN, S.B. in L.S., M.A., *Instructor in Library Science and Librarian of the School of Library Science*
A.B., 1941 (Transylvania College); S.B. in L.S., 1942 (North Carolina); M.A., 1947 (Kentucky)
- GEORGE DIAL PENICK, S.B., M.D., *Instructor in Pathology*
S.B., 1943 (North Carolina); M.D., 1946 (Harvard)
- MICHAEL PENNELLA, *Master Sergeant, United States Air Force, Instructor in Air Science and Tactics*
- H. ARNOLD PERRY, Ed.D., *Professor of Education*
A.B., 1926, Ed.M., 1933 (Duke); Ed.D., 1943 (Columbia)
- WILLIAM DECATUR PERRY, Ed.D., *Associate Professor of Education and Director of the University Testing Service*
A.B. in Educ., 1929 (North Carolina); M.A., 1934 (Columbia); Ed.D., 1937 (Teachers College, Columbia)
- *RICHARD MORSE PETERS, B.S., M.D., *Assistant Professor of Surgery*
B.S., 1943, M.D., 1945 (Yale)
- WILLIAM MOORE PETERSON, A.M., *Part-time Instructor in English*
A.B., 1947, A.M., 1948 (Brown)
- RALPH WILLIAM PFOUTS, M.A., *Lecturer in Economics*
A.B., 1942, M.A., 1947 (Kansas)
- CLARENCE PHILBROOK, Ph.D., *Associate Professor of Economics*
A.B., 1936, Ph.D., 1949 (Chicago)
- GUY BERRYMAN PHILLIPS, M.A., *Professor of Education and Dean of the School of Education, Director of the Summer School and of Teachers' Placement Bureau*
A.B., 1913 (North Carolina); M.A., 1942 (Columbia)
- ANDREW WARREN PIERPONT, A.B., M.B.A., *Lecturer in Business Administration*
A.B., 1928 (Washington and Lee); M.B.A., 1931 (Harvard)
- WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., LL.D., *Professor of History and Political Science and Dean of the Graduate School*
A.B., 1910, A.M., 1911 (Alabama); M.A., 1912, Ph.D., 1916 (Columbia); Litt.D. (Boston); LL.D. (Washington and Lee)

* Beginning May 1, 1952.

- TULLIO JOSEPH PIGNANI, M.S., *Part-time Instructor in Mathematics*
B.S., 1948 (State Teacher's College, Indiana, Pa.); M.S., 1949 (Bucknell)
- JOHN WESLEY PLATT, A.M., *Part-time Instructor in English*
A.B., 1939 (Wofford); A.M., 1948 (South Carolina)
- WILLIAM HOWARD PLEMMONS, Ph.D., *Professor of Education*
A.B., 1928 (Wake Forest); A.M., 1935 (Duke); Ph.D., 1943 (North Carolina)
- LEON M. POLLANDER, *Director of Advertising in the School of Journalism*
- WILLIAM HARDMAN POTEAT, B.D., Ph.D., *Assistant Professor of Philosophy and Adviser in the General College*
A.B., 1941 (Oberlin); B.D., 1944 (Yale); Ph.D., 1951 (Duke)
- LEE HARRIS POTTER, A.M., *Part-time Instructor in English*
A.B., 1948, A.M., 1950 (North Carolina)
- LOGAN PRATT, A.M., *Part-time Instructor in English*
A.B., 1934 (Virginia); A.M., 1950 (Emory)
- ROBERT ARMSTRONG PRATT, Ph.D., *Professor of English*
A.B., 1929, Ph.D., 1933 (Yale)
- CARLETON ESTEY PRESTON, Ph.D., *Professor of Education, Emeritus*
A.B., 1899, A.M., 1900, Ph.D., 1902 (Harvard)
- DANIEL O'HAVER PRICE, Ph.D., *Professor of Sociology and Research Professor in the Institute for Research in Social Science*
B.S., 1939 (Florida Southern); A.M., 1942, Ph.D., 1948 (North Carolina)
- RUTH I. PRICE, M.S., *Assistant Professor of Physical Education*
B.S., 1926 (Columbia); M.S., 1936 (Southern California)
- JAMES ROY PRINCE, A.M., *Part-time Instructor in French*
A.B., 1931 (South Carolina); A.M., 1938 (North Carolina)
- *WILLIAM MEADE PRINCE, *Lecturer in Art*
- WILLIAM RUSSELL PULLEN, Ph.D., *Assistant Professor of Political Science and Documents Librarian*
A.B., 1942, S.B. in L.S., 1947, A.M., 1948, Ph.D., 1951 (North Carolina)
- WALTER PUPA, A.M., *Assistant Football Coach*
A.B., 1947, A.M., 1951 (North Carolina)
- WALTER WAGNER RABB, A.M., *Assistant Professor of Physical Education*
B.S., 1937 (North Carolina State); A.M. in Educ., 1941 (North Carolina)
- ALBERT ERNEST RADFORD, Ph.D., *Assistant Professor of Botany*
B.S., 1939 (Furman); Ph.D., 1948 (North Carolina)
- GEORGE JOHN RADMAN, A.M., *Instructor in Physical Education and Assistant Football Coach*
A.B., 1940, A.M., 1947 (North Carolina)

* Died November 10, 1951.

- RICHARD BEVERLY RANEY, A.B., M.D., *Lecturer in Orthopedic Surgery*
A.B., 1926 (North Carolina); M.D., 1930 (Harvard)
- MURPHY DALE RANSON, S.B.Comm., *Instructor in Physical Education*
S.B. Commerce, 1924 (North Carolina)
- JEAN INGRAM REBENTISCH, R.N., M.A., *Associate Professor of Maternal and Child Health*
Diploma, 1927 (Methodist Hospital School of Nursing, Brooklyn); R.N.; B.S., 1940, M.A., 1943 (Teachers College, Columbia)
- JESSIE REHDER, M.A., *Instructor in English*
A.B., 1929 (Randolph-Macon); M.A., 1931 (Columbia)
- *HERBERT WILLIAM REICHERT, Ph.D., *Assistant Professor of German*
B.A., 1938, M.A., 1940 (Columbia); Ph.D., 1942 (Illinois)
- ISAAC NEWTON REYNOLDS, S.M., *Instructor in Accounting*
B.S., 1948 (East Carolina College); S.M., 1951 (North Carolina)
- OSCAR KNEFLER RICE, Ph.D., *Professor of Chemistry*
B.S., 1924, Ph.D., 1926 (California)
- WILLIAM PERRY RICHARDSON, A.B., M.D., M.P.H., *Research Professor of Public Health Administration*
A.B., 1926 (Wake Forest); M.D., 1928 (Medical College of Virginia); M.P.H., 1933 (Johns Hopkins)
- SIEGFRIED HENRY RIES, M.Ph., *Part-time Instructor in Political Science*
B.S.Ed., 1941, M.Ph., 1947 (Wisconsin)
- WILLIAM WILLIS RITTER, JR., S.B., A.M., *Part-time Instructor in Spanish*
S.B., 1946, A.B., 1948, A.M., 1951 (North Carolina)
- HERBERT ELLIS ROBBINS, Ph.D., *Professor of Mathematical Statistics*
A.B., 1935, A.M., 1936, Ph.D., 1938 (Harvard)
- NELLIE ROBERSON, B.S., A.B., *Library Extension Librarian*
B.S., 1902 (Richmond Woman's College); A.B., 1921 (North Carolina)
- JAMES STENIUS ROBERTS, M.S. in P.A., *Part-time Instructor in Political Science*
B.S., 1946 (Harvard); M.S. in P.A., 1950 (Southern California)
- EDWARD D. ROBERTSON, *Captain, United States Air Force, Assistant Professor of Air Science and Tactics*
- *CHARLES BASKERVILL ROBSON, Ph.D., *Professor of Political Science*
A.B., 1919 (Davidson); A.M., 1924 (Princeton); Ph.D., 1930 (North Carolina)
- ARTHUR ROE, Ph.D., *Professor of Chemistry*
B.A., 1933 (Oberlin); M.A., 1935 (Colorado College); Ph.D., 1938 (Northwestern)
- EUGENE WOODROW ROELOFS, Ph.D., *Associate Professor in the Institute of Fisheries Research*
B.S., 1936, M.S., 1938, Ph.D., 1941 (Michigan State)

* Absent on leave, 1951-1952.

- ROBERT PRESTON ROGERS, A.M., *Part-time Instructor in English*
A.B., 1948, A.M., 1951 (Vanderbilt)
- MICHAEL Z. RONMAN, Ed.M., *Instructor in Physical Education*
B.S., 1935, Ed.M., 1938 (Pennsylvania State)
- *IRA WINFIELD ROSE, Ph.G., *Professor of Practical Pharmacy, Emeritus*
Ph.G., 1906 (North Carolina)
- NATHAN ROSEN, Sc.D., *Professor of Physics*
S.B., 1929, S.M., 1930, Sc.D., 1932 (Massachusetts Institute of Technology)
- WILLIAM EVERETT ROSENSTENGEL, Ph.D., *Professor of Education*
B.S. in Ed., 1923 (Northeast Missouri State Teachers College); A.M., 1927, Ph.D., 1931 (Missouri)
- ROBERT ALEXANDER ROSS, S.B., M.D., *Lecturer in Obstetrics*
S.B., 1920 (North Carolina); M.D., 1922 (Pennsylvania)
- SAMARENDRA NATH ROY, M.Sc., *Professor of Mathematical Statistics*
B.Sc., 1928, M.Sc., 1931 (Calcutta)
- CHARLES EVERETT RUSH, A.B., B.L.S., A.M., *Professor of Library Science, Director of Libraries, and Chairman of the Library Division*
A.B., 1905 (Earlham College); B.L.S., 1908 (New York State Library School); Hon. A.M. (Yale)
- CHARLES PHILLIPS RUSSELL, A.B., *Professor of Journalism*
A.B., 1904 (North Carolina)
- †HARRY KITSUN RUSSELL, Ph.D., *Professor of English*
A.B., 1923 (Davidson); A.M., 1928, Ph.D., 1931 (North Carolina)
- FRANK A. RYAN, A.M., *Part-time Instructor in Social Science*
B.S., 1940 (College of Charleston); A.M., 1947 (North Carolina)
- JOHN MORRIS RYAN, B.S., A.M., *Part-time Instructor in Economics*
B.S., 1949 (Georgia Institute of Technology); A.M., 1950 (North Carolina)
- WILL CARSON RYAN, Ph.D., Ed.D., LL.D., *Kenan Professor of Education*
A.B., 1907 (Harvard); Ph.D., Ed.D., 1918, LL.D., (George Washington)
- ALTON GUY SADLER, M.S., C.P.A., *Associate Professor of Accounting*
A.B., 1930 (Duke); M.S., 1937 (North Carolina); C.P.A., (State of Georgia)
- TERENCE R. ST. LOUIS, *Technical Sergeant, United States Air Force, Instructor in Air Science and Tactics*
- WILEY BRITTON SANDERS, Ph.D., *Professor of Sociology*
A.B., 1919, A.M., 1920 (Emory); A.M., 1921 (North Carolina); Ph.D., 1929 (Chicago)
- RODNEY GRANT SARLE, M.B.A., *Lecturer in Business Administration*
A.B., 1946 (Brown); M.B.A., 1947 (Harvard)
- WILLINDA SAVAGE, Ed.D., *Assistant Professor of Education*
B.S., 1934, M.A., 1939 (Virginia); Ed.D., 1950 (Michigan)
- EVERETT WALTER SCHADT, M.A., *Lecturer in Economics*
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* Died January 14, 1952.

† Absent on leave, 1951-1952.

- GENEVIEVE YOST SCHEER, A.B., B.S. in L.S., *Serials Librarian*
A.B., 1928 (Missouri); B.S. in L.S., 1936 (Columbia)
- ROBERT SCHENKKAN, A.M., *Associate Professor of Radio*
A.B., 1941 (Virginia); A.M., 1946 (North Carolina)
- HERMAN MAX SCHIEBEL, A.B., M.D., *Lecturer in Surgery*
M.D., 1933 (Johns Hopkins)
- JAN PHILIP SCHINHAN, Ph.D., *Professor of Music*
A.B., 1931, M.A., 1933 (California); Ph.D., 1937 (Vienna)
- JAMES A. SCHOFIELD, A.B., *Captain, United States Air Force, Assistant Professor of Air Science and Tactics*
A.B., 1948 (The Citadel)
- JAMES BERT SCHOLES, A.M., *Part-time Instructor in English*
A.B., 1942 (Middlebury); A.M., 1949 (Kansas)
- WILLIAM D. SCHORGER, Ph.D., *Assistant Professor of Anthropology*
A.B., 1947, A.M., 1949, Ph.D., 1952 (Harvard)
- GUSTAV THEODOR SCHWENNING, Ph.D., *Professor of Business Administration*
B.H., 1920 (Springfield); M.A., 1921, Ph.D., 1925 (Clark)
- SAMUEL J. SCOTT, M.A., *Part-time Instructor in Mathematics*
A.B., 1946 (North Carolina); M.A., 1949 (East Carolina College)
- TOM SCOTT, M.A., *Head Basketball Coach*
B.S., 1930 (Kansas State Teachers College); M.A., 1937 (Iowa)
- ROSS SCROGGS, B.S., *Associate Director, Production, Communication Center, and Part-time Instructor in Physics*
B.S., 1942 (North Carolina)
- HUGH NELSON SEAY, JR., B.A., *Part-time Instructor in Spanish*
B.A., 1949 (Randolph-Macon)
- STUART WILSON SECHRIEST, A.B., *Associate Professor of Journalism*
A.B., 1935 (North Carolina)
- BEN MOORE SEELBINDER, A.M., *Part-time Instructor in Mathematics*
B.S., 1945 (Mississippi Delta State Teachers College); A.M., 1950 (North Carolina)
- MARGARET BUTLER SEELBINDER, A.M., *Part-time Instructor in Mathematics*
A.B., 1946 (Randolph-Macon Woman's College); A.M., 1950 (North Carolina)
- SAMUEL SELDEN, A.B., *Professor of Dramatic Art and Director of The Carolina Playmakers*
A.B., 1922 (Yale)
- FRED SEMENIUK, Ph.D., *Professor of Pharmaceutical Chemistry*
B.Sc., 1939 (Alberta); Ph.D., 1947 (Purdue)
- ROBERT JACK SHANKLE, D.D.S., *Associate Professor of Operative Dentistry*
D.D.S., 1948 (Emory)

- ROBERT BOIES SHARPE, Ph.D., *Professor of English*
A.B., 1918 (Wesleyan); M.A., 1923 (Wisconsin); Ph.D., 1928 (Yale)
- PAUL EDMONDSON SHEARIN, Ph.D., *Professor of Physics*
A.B. in Educ., 1929, A.M., 1930 (North Carolina); Ph.D., 1934 (Ohio State)
- FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Adviser
in the General College*
A.B., 1921, A.M., 1926, Ph.D., 1938 (North Carolina)
- GEORGE EDWARD SHEPARD, Ed.D., *Professor of Physical Education*
S.B., 1929 (North Carolina); M.A., 1940, Ed.D., 1948 (Columbia)
- CECIL GEORGE SHEPS, M.D., M.P.H., *Research Professor of Health
Planning and Director of Program Planning, Division of Health
Affairs; Research Professor in the Institute for Research in Social
Science*
M.D., 1936 (Manitoba); M.P.H., 1947 (Yale)
- MINDEL CHERNIACK SHEPS, M.D., M.P.H., *Lecturer in Medical Informa-
tion*
M.D., 1936 (Manitoba); M.P.H., 1950 (North Carolina)
- BASIL LAMAR SHERRILL, A.B., J.D., *Assistant Research Professor in
Public Law and Government*
A.B., 1947, J.D., 1950 (North Carolina)
- CLAUDE C. SHOTTS, B.S. in E.E., B.D., *General Secretary, Y.M.C.A.*
B.S. in E.E., 1922 (Alabama); B.D., 1925 (Yale)
- GEORGE L. SIMPSON, JR., Ph.D., *Associate Professor of Sociology and
Research Associate in the Institute for Research in Social Science*
A.B., 1941, A.M., 1944, Ph.D., 1951 (North Carolina)
- JOSEPH CARLYLE SITTERSON, Ph.D., *Professor of History*
A.B., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)
- EARL ANDERSON SLOCUM, M.M., *Professor of Music*
B.Mus., 1931, M.M., 1936 (Michigan)
- IRENE SMART, *Instructor in Dramatic Art*
- CARL GREY SNAVELY, M.A., *Head Coach of Football*
A.B., 1915 (Lebanon Valley College); M.A., 1933 (Bucknell)
- *CLARENCE LEE SOCKWELL, D.D.S., *Instructor in Operative Dentistry*
D.D.S., 1952 (Emory)
- CLEMENS SOMMER, Ph.D., *Professor of the History of Art*
Ph.D., 1919 (Freiburg)
- LUCILLE STUART SPALDING, R.N., M.S., *Associate Professor of Nursing*
Diploma in Nursing, 1931 (Washington University School of Nursing); B.S.,
1935 (Washington University); M.S., 1946 (Western Reserve University)
- WALTER SPEARMAN, A.M., *Professor of Journalism*
A.B., 1929, A.M., 1937 (North Carolina)
- DONALD L. SPIRES, *Master Sergeant, United States Air Force, Instructor
in Air Science and Tactics*

* Beginning July 1, 1952.

- FRED FRANK SPRINGER-MILLER, A.B., *Part-time Instructor in Latin*
A.B., 1949 (Dartmouth)
- CORYDON PERRY SPRUILL, A.B., B.Litt. (Oxon.), *Professor of Economics and Dean of the General College*
A.B., 1920 (North Carolina); B.Litt., 1922 (Oxford)
- HERMAN HENRY STAAB, M.A., *Associate Professor of Romance Languages, Emeritus*
B.A., M.A., 1912 (University of the South)
- MRS. MARVIN HENDRIX STACY, *Dean of Women, Emeritus*
Graduate, 1907 (N. C. State Normal and Industrial College)
- THOMAS MELVILLE STANBACK, JR., M.B.A., *Assistant Professor of Business Administration*
S.B., 1940 (North Carolina); M.B.A., 1942 (Harvard)
- LOIS FOOTE STANFORD, M.D., *Instructor in Medicine*
M.D., 1921 (Pennsylvania)
- WILLIAM RANEY STANFORD, A.B., M.D., *Instructor in Medicine*
A.B., 1915 (North Carolina); M.D., 1919 (Pennsylvania)
- DANIEL DEMPSEY STANLEY, A.B., *Part-time Instructor in Spanish*
A.B., 1949 (Georgia)
- * JOHN MARCELLUS STEADMAN, III, Ph.D., *Assistant Professor of English*
A.B., 1940, M.A., 1941 (Emory); M.A., 1948, Ph.D., 1949 (Princeton)
- JOSEPH FLAKE STEELMAN, A.M., *Part-time Instructor in Social Science*
A.B., 1943, A.M., 1947 (North Carolina)
- PEARSON HASLAM STEWART, A.B., M.C.P., *Visiting Assistant Professor of Planning and Research Associate in the Institute for Research in Social Science*
A.B., 1940 (Amherst); M.C.P., 1946 (Massachusetts Institute of Technology)
- STERLING AUBREY STOUDEMIRE, Ph.D., *Professor of Spanish*
A.B., 1923, A.M., 1924, Ph.D., 1930 (North Carolina)
- FLOYD STOVALL, Ph.D., *Professor of English*
A.B., 1923, M.A., 1924, Ph.D., 1927 (Texas)
- JOSEPH WARD STRALEY, Ph.D., *Associate Professor of Physics*
B.S. in Ed., 1936 (Bowling Green State University); M.Sc., 1937, Ph.D., 1941 (Ohio State)
- WILLIAM RINGGOLD STRAUGHN, JR., M.S., *Assistant Professor of Bacteriology*
B.S., 1935 (Penn. State Teachers College); M.S., 1940 (Cornell)
- HAMMOND STRAYHORN, A.M., *Instructor in Physical Education*
S.B., 1938, A.M., 1949 (North Carolina)
- JAMES H. STREET, JR., A.M., *Part-time Instructor in History*
A.B., 1949, A.M., 1950 (North Carolina)
- JOSEPH BRADLEY STROUP, A.M., *Part-time Instructor in English*
A.B., 1950, A.M., 1951 (North Carolina)

* Absent on leave for military duty.

- OTTO STUHLMAN, JR., Ph.D., *Professor of Physics*
B.A., 1907 (Cincinnati); M.A., 1909 (Illinois); Ph.D., 1911 (Princeton)
- HENRY TRACY STURCKEN, A.M., *Part-time Instructor in Spanish*
A.B., 1947 (College of Charleston [S. C.]); A.M., 1950 (North Carolina)
- CLIFFORD MAX STURDEVANT, D.D.S., *Associate Professor of Operative Dentistry*
D.D.S., 1943 (Emory)
- ROGER EDWARD STURDEVANT, D.D.S., *Professor of Operative Dentistry*
D.D.S., 1916 (Nebraska)
- ALBERT IRVING SUSKIN, Ph.D., *Associate Professor of Latin and Assistant to the Dean of the College of Arts and Sciences*
A.B. in Educ., 1931, A.M., 1932, Ph.D., 1937 (North Carolina)
- BENJAMIN FRANKLIN SWALIN, Ph.D., *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)
- MARGARET CATHERINE SWANTON, M.D., *Instructor in Pathology*
A.B., 1943 (North Carolina); M.D., 1946 (Johns Hopkins)
- ERNEST WILLIAM TALBERT, Ph.D., *Professor of English*
A.B., 1929 (San Jose State College); M.A., 1931, Ph.D., 1936 (Stanford)
- HENRY TAUBER, Ph.D., *Associate Professor of Experimental Medicine*
Ph.D., 1927 (Vienna)
- CHARLES BRUCE TAYLOR, B.S., M.B., M.D., *Associate Professor of Pathology*
B.S., 1938, M.B., 1940, M.D., 1941 (Minnesota)
- EUGENE E. TAYLOR, B.S., M.D., M.P.H., *Instructor in Public Health Administration*
B.S., 1942 (Idaho); M.D., 1945 (Washington University, St. Louis); M.P.H., 1950 (North Carolina)
- GEORGE COFFIN TAYLOR, Ph.D., Litt.D., *Kenan Professor of English, Emeritus*
A.B., 1897 (South Carolina); A.M., 1899 (Harvard); Ph.D., 1906 (Chicago); Litt.D. (South Carolina)
- HARDEN FRANKLIN TAYLOR, A.B., Sc.D., *Consultant in the Institute of Fisheries Research*
A.B. (Trinity College); Sc.D. (Duke)
- *ISAAC M. TAYLOR, A.B., M.D., *Assistant Professor of Medicine*
A.B., 1942 (North Carolina); M.D., 1945 (Harvard)
- JAMES ALEXANDER TAYLOR, A.B., M.D., *Instructor in Medicine and Assistant University Physician*
A.B., 1939 (North Carolina); M.D., 1943 (Harvard)

* Beginning January 1, 1952.

- *WILLIAM WEST TAYLOR, S.B., *Assistant Professor of Hospital Pharmacy*
S.B., 1947 (North Carolina)
- LORNA M. TEARE, B.Sc., *Instructor in Pharmacy*
B.Sc., 1950 (Alberta)
- WILLIAM ADOLPH TERRILL, M.S., *Assistant Professor of Accounting*
B.B.A., 1938, B.S., 1940 (Cincinnati); M.S., 1949 (Illinois)
- DOROTHY TERRY, Ph.D., *Assistant Professor of Psychology*
A.B., 1943, A.M., 1945, Ph.D., 1950 (Wisconsin)
- PETER TERWEY, JR., M.A., *Part-time Instructor in Mathematics*
B.A., 1943 (Texas Western); M.A., 1949 (Texas)
- JAMES D. THAYER, Ph.D., *Assistant Professor of Experimental Medicine*
B.S., 1929, M.S., 1931, Ph.D., 1936 (Washington)
- CLIFFORD BRUCE THOMAS, B.S., LL.B., *Assistant Research Professor in Public Law and Government*
B.S., 1948, LL.B., 1951 (Wisconsin)
- †COLIN G. THOMAS, JR., B.S., M.D., *Assistant Professor of Surgery*
B.S., 1940, M.D., 1943 (Chicago)
- ‡MASON PAGE THOMAS, JR., S.B., LL.B., *Assistant Research Professor in Public Law and Government*
S.B., 1949, LL.B., 1951 (North Carolina)
- WILLIAM WAYT THOMAS, JR., A.B., *Part-time Instructor in Political Science*
A.B., 1947 (North Carolina)
- HERMAN ORA THOMPSON, Ph.D., *Professor of Pharmacy*
S.B. in Phar., 1937 (North Carolina); M.S., 1940, Ph.D., 1944 (Purdue)
- MARY LINDSAY THORNTON, A.M., *Librarian, North Carolina Collection*
A.B., 1939, A.M., 1943 (North Carolina)
- §LOUIS LEON THURSTONE, Ph.D., *Research Professor of Psychology and Director of the Psychometric Laboratory*
M.E., 1912 (Cornell); Ph.D., 1917 (Chicago)
- ||THELMA GWINN THURSTONE, Ph.D., *Professor of Education*
A.B., 1917, B.S. in Ed., 1920 (Missouri); A.M., 1923 (Carnegie Institute of Technology); Ph.D., 1926 (Chicago)
- JAMES STERLING TIPPETT, B.S., *Visiting Lecturer in Extension Teaching*
B.S., 1915 (Missouri)
- HENRY ROLAND TOTTEN, Ph.D., *Professor of Botany*
A.B., 1913, A.M., 1914, Ph.D., 1923 (North Carolina)
- HENRY WILLIS TRAUB, A.B., *Part-time Instructor in Latin*
A.B., 1950 (Duke)

* Beginning March 1, 1952.

† Beginning April 1, 1952.

‡ Resigned February 1, 1952.

§ Beginning March, 1952.

|| Beginning September, 1952

- RALPH MCCOY TRIMBLE, C.E., S.M., *Professor of Applied Mathematics*
C.E., 1921 (Virginia); S.M., 1927 (North Carolina)
- BASIL LIONEL TRUSCOTT, Ph.D., M.D., *Assistant Professor of Anatomy*
B.A., 1939 (Drew University); M.A., 1940 (Syracuse); M.S., 1942, Ph.D., 1943,
M.D., 1950 (Yale)
- *GABRIEL F. TUCKER, JR., A.B., M.D., *Assistant Professor of Pharmacology*
A.B., 1947 (Princeton); M.D., 1951 (Johns Hopkins)
- EUNICE NICKERSON TYLER, Ph.D., *Associate Professor of Public Health Education*
Ph.B., 1931 (Brown); M.P.H., 1936, Ph.D., 1946 (Yale)
- SHEPPARD YOUNG TYREE, JR., Ph.D., *Associate Professor of Chemistry*
B.S., 1942, Ph.D., 1946 (Massachusetts Institute of Technology)
- BERTHOLD LOUIS ULLMAN, Ph.D., *Kenan Professor of Classical Languages and Literatures*
A.B., 1903, Ph.D., 1908 (Chicago)
- RUPERT BAYLESS VANCE, Ph.D., LL.D., *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)
- CHARLES DURWARD VAN CLEAVE, Ph.D., *Associate Professor of Anatomy*
A.B., 1925 (Colorado); Ph.D., 1928 (Chicago)
- HAROLD P. VAN COTT, A.M., *Part-time Instructor in Psychology*
A.B., 1948 (Rochester); A.M., 1951 (North Carolina)
- MAURICE TAYLOR VAN HECKE, Ph.B., J.D., *Professor of Law*
Ph.B., 1916, J.D., 1917 (Chicago)
- WILTON EMILE VANNIER, M.D., *Instructor in Experimental Medicine*
M.D., 1948 (California)
- ROBERT GAIGE VAN NOSTRAND, M.S., *Part-time Instructor in Physics*
B.S., 1942, M.S., 1949 (Missouri School of Mines)
- WALTER WEDDLE VAUGHAN, A.B., M.D., *Lecturer in Radiographic Anatomy*
A.B., 1929 (North Carolina); M.D., 1933 (Jefferson Medical College)
- BLANCHE LONG VINCENT, R.N., B.S., *Visiting Instructor in Public Health Nursing*
Diploma, 1932 (Mt. Sinai Hospital School of Nursing, New York); R.N.;
C.P.H.N., 1939 (Richmond Professional Institute of William and Mary); B.S.,
1945 (Whitman College)
- JACOB ASTOR VIVERETTE, A.M., *Part-time Instructor in English*
A.B., 1947, A.M., 1949 (North Carolina)

* Beginning July 1, 1952.

- GUELDA ELLIOTT VON BECKERATH, A.B., *Business Administration Librarian*
A.B., 1943 (North Carolina)
- ELAINE VON OESSEN, B.A., A.B. in L.S., A.M., *Assistant Professor of Library Science*
B.A., 1938 (Lenoir-Rhyne); A.B. in L.S., 1940, A.M., 1951 (North Carolina)
- ROGERS CHRISTOPHER WADE, S.B., *Part-time Lecturer in Accounting*
S.B., 1929 (North Carolina)
- PAUL WOODFORD WAGER, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
B.S., 1917 (Hobart College); A.M., 1920 (Haverford); Ph.D., 1927 (North Carolina)
- PHILIP A. WALKER, A.M., *Part-time Instructor in Social Science*
A.B., 1940 (North Carolina); A.M., 1942 (Emory)
- THOMAS EDWARD WALKER, A.M., *Part-time Instructor in English*
S.B. in Ed., 1948, A.M., 1949 (Missouri)
- JAMES C. WALLACE, S.B., LL.B., A.B., *Part-time Instructor in Social Science*
S.B., 1944, LL.B., 1947, A.B., 1947 (North Carolina)
- CHARLES ROBERT WALTER, JR., Ph.D., *Assistant Professor of Chemistry*
B.A., 1943, Ph.D., 1949 (Virginia)
- *DON H. WALTHER, Ph.D., *Assistant Professor of Spanish and Portuguese*
A.B., 1938 (Miami University); A.M., 1940, Ph.D., 1948 (North Carolina)
- FREDERICK HENRY WEAVER, A.M., *Dean of Students*
A.B., 1937 (North Carolina); A.M., 1950 (Harvard)
- ROBERT WEAVER, M.A., *Part-time Instructor in Music*
B.A., 1948, M.A., 1950 (Columbia)
- ALEXANDER WEBB, JR., A.B., M.D., *Lecturer in Surgical Anatomy*
A.B., 1933 (North Carolina); M.D., 1937 (Harvard)
- JAMES MURRAY WEBB, A.B., M.C.P., *Associate Professor of Planning*
A.B. in Architecture, 1937 (California); M.C.P., 1946 (Massachusetts Institute of Technology)
- W. DWIGHT WEED, B.A., B.S.E., B.D., *Part-time Instructor in Sociology*
B.A., B.S.E., 1936 (Ohio State); B.D., 1943 (Garrett Biblical Institute, Northwestern)
- WILLIAM SMITH WELLS, Ph.D., *Professor of English*
A.B., 1929, A.M., 1930 (Southern California); Ph.D., 1935 (Stanford)
- ROBERT HASLEY WETTACH, M.A., S.J.D., *Professor of Law*
A.B., 1913, M.A., 1914, LL.B., 1917 (Pittsburgh); S.J.D., 1921 (Harvard)
- THOMAS VAN HORN WHEELER, A.M., *Part-time Instructor in English*
A.B., 1948 (Maryville); A.M., 1950 (Tennessee)

* Absent on leave, 1951-1952.

- WALTER HALL WHEELER, Ph.D., *Instructor in Geology*
B.S., 1945, M.S., 1948 (Michigan); Ph.D., 1952 (Yale)
- RICHARD ARNOLD WHITE, *Instructor in Physical Education*
- *WILLIAM ALEXANDER WHITE, Ph.D., *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., Ph.D., *Associate Professor of Business Administration*
B.S., 1942, M.A., 1943, Ph.D., 1945 (Virginia)
- MAURICE WHITTINGHILL, Ph.D., *Associate Professor of Zoology*
A.B., 1931 (Dartmouth); Ph.D., 1937 (Michigan)
- WILLIAM M. WHYBURN, Ph.D., LL.D., *Kenan Professor of Mathematics*
A.B., 1922, M.A., 1923, Ph.D., 1927 (Texas); LL.D., (Texas Technological College)
- WILLIAM LEON WILEY, Ph.D., *Professor of French*
A.B., 1921 (Chattanooga); A.M., 1925, Ph.D., 1930 (Harvard)
- LENA MAE WILLIAMS, A.M., S.B. in L.S., *Order Librarian*
A.B., 1930, A.M., 1931, S.B. in L.S., 1944 (North Carolina)
- LAMONT WELLS WILLIAMSON, B.A., *Part-time Instructor in Political Science*
B.A., 1950 (Duke)
- EVERETT EUGENE WILSON, B.S., M.S.W., *Visiting Lecturer in Social Work*
B.S., 1932 (State Teachers College, Millersville, Pa.); M.S.W., 1938 (Pennsylvania School of Social Work)
- GEORGE DOWMAN WILSON, M.A., *Part-time Instructor in Political Science*
A.B., 1934 (Mercer); M.A., 1939 (Georgia)
- JOHN E. WILSON, Ph.D., *Assistant Professor of Biological Chemistry and Nutrition*
S.B., 1941 (Chicago); M.S., 1944 (Illinois); Ph.D., 1948 (Cornell)
- LOUIS ROUND WILSON, Ph.D., Litt.D., LL.D., L.H.D., *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)
- †BEN JAMES WINER, M.S., *Assistant Professor of Psychology*
B.S., 1939, M.S., 1941 (Oregon)
- REX SHELTON WINSLOW, Ph.D., *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, Ph.D., *Professor of Mathematics*
A.B., 1914, A.M., 1915 (Mount Allison College); Ph.D., 1927 (Johns Hopkins)

* Absent on leave, winter quarter, 1952.

† Beginning March, 1952.

- ELIZABETH SNOW WOLF, A.M., *Part-time Instructor in Mathematics*
B.S., 1941 (Mary Washington); A.M., 1948 (North Carolina)
- HARRY DEMERLE WOLF, Ph.D., *Professor of Economics*
B.S., 1922 (Kansas State Teachers College); A.M., 1923, Ph.D., 1926 (Chicago)
- IRVIN S. WOLF, Ph.D., *Associate Professor of Psychology*
A.B., 1937 (Manchester College); M.A., 1939, Ph.D., 1948 (Indiana)
- NATHAN ANTHONY WOMACK, S.B., M.D., *Professor of Surgery*
S.B., 1922 (North Carolina); M.D., 1924 (Washington University)
- CARROLL EMORY WOOD, JR., Ph.D., *Assistant Professor of Botany*
B.S., 1941 (Roanoke); M.S., 1943 (Pennsylvania); A.M., 1947, Ph.D., 1949 (Harvard)
- LAWRENCE E. WOODALL, B.A., *Lieutenant, Supply Corps, United States Naval Reserve, Assistant Professor of Naval Science*
B.A., 1940 (Henderson State Teachers College)
- EDWARD JAMES WOODHOUSE, B.A., LL.B., *Professor of Political Science*
B.A., 1903 (Randolph-Macon); LL.B., 1907 (Virginia)
- GEORGE MILTON WOODWARD, M.A., *Lecturer in Economics*
A.B., 1932, M.A., 1933 (Vanderbilt)
- JOHN BROOKS WOOSLEY, Ph.D., *Kenan Professor of Finance*
A.B., 1912 (Guilford College); A.B., 1913, A.M., 1914 (Haverford); Ph.D., 1931 (Chicago)
- JOHN JOSEPH WRIGHT, A.B., M.D., M.P.H., *Professor of Public Health Administration*
A.B., 1931, M.D., 1935 (Vanderbilt); M.P.H., 1939 (Johns Hopkins)
- EARL WYNN, M.S., *Professor of Radio and Communication and Director of the Communication Center*
A.B., 1932 (Augustana College); M.S., 1934 (Northwestern)
- RHODA HUNTER WYNN, A.M., *Assistant Professor of Radio*
B.S., 1943 (State Teachers College, Indiana, Pa.); A.M., 1949 (North Carolina)
- FRANCES LYDIA YOCOM, A.B., B.L.S., M.A. in L.S., *Catalogue Librarian*
A.B., 1921 (Oberlin); B.L.S., 1931 (Western Reserve); M.A. in L.S., 1939 (California)
- DAVID ALEXANDER YOUNG, A.B., M.D., *Clinical Professor of Psychiatry*
A.B., 1928 (North Carolina); M.D., 1931 (Harvard)
- JOHN E. YOUNG, M.A., *Lecturer in Radio*
A.B., 1948 (North Carolina); M.A., 1951 (Northwestern)
- J. OWEN YOUNG, B.B.A., *Major, United States Air Force, Assistant Professor of Air Science and Tactics*
B.B.A., 1941 (Miami)
- JOHN WILLIAM ZARKER, A.B., *Part-time Instructor in Latin*
A.B., 1950 (Franklin and Marshall)

GRADUATE APPOINTMENTS, 1951-1952

Teaching Fellows

ROY HORTON BAILEY, S.B.....	Chemistry
BARBARA LOUISE BENNETT, A.M.....	English
ROBERT WOODRUFF BREHME, B.S.....	Physics
FRANCIS JOHN BROOKE, III, M.A.....	German
WILLIAM PINCKNEY CAVIN, M.A.....	Chemistry
CATHERINE DERISEAU CHANCE, A.B.....	Romance Languages
WINBOURNE MAGRUDER DRAKE, A.M.....	History
AUSTIN MARCUS DRUMM, M.S.....	History
RUTH MARIE FAUROT, M.A.....	English
JOHN BERNARD GILSDORF, M.A.....	Romance Languages
EDWARD EVERETT GRACE, S.B.....	Mathematics
HUBERT HILL HARPER, JR., B.A.....	Classics
CHARLES LEROY HENRY, M.S.....	Chemistry
*WILLIAM LENTZ IVEY, S.M.....	Economics and Business Administration
HARRY LUDWIG LEONHARDT, A.B.....	Psychology
JOHN PAUL MAGGARD, M.B.A.....	Economics and Business Administration
ROLAND JOSEPH PELLEGRIN, M.A.....	Sociology
EDWARD JOSEPH PELLICCIARO, B.S.....	Mathematics
†CHARLES FRANCIS POSTON, M.A.....	Economics and Business Administration
THADDEUS SEYMOUR, A.M.....	English
MERTON EUGENE SIMONS, M.S.....	Geology and Geography
CLAUDE BERNARDE STEPHENSON, JR., M.A.....	Political Science
TOBIE OLIVER SURPRENANT, B.A.....	Romance Languages
PHILIP THAYER, A.M.....	History
ROBERT WICKHAM WHETSTONE, M.A.....	Education
LILLIAN MARGOT YOUNGS, A.M.....	Zoology

Graduate Assistants

BERNARD JOSEPH ALLEY, B.S.....	Chemistry
*GLENN DWIGHT APPLE, A.B.....	Chemistry
FRANCES CAROLYN BALCH, B.S.....	Chemistry
WINFIELD MORGAN BALDWIN, JR., B.S.....	Chemistry
LOIS ELIZABETH BARR, A.M.....	English
EDWARD BERNASEK, B.S.....	Chemistry
MELVIN BERNSTEIN, M.M.....	Music

* Fall quarter only.

† Beginning winter quarter.

WILLIAM SAMUEL BEST, B.S.....	Chemistry
THEODORE ALEXANDER BONDI, B.S.....	Physical Education
DONALD ROBERT BORING, B.S.....	Physical Education
MARY GRAY CLARKE, M.M.....	Music
JACK REED COLLIER, M.S.....	Zoology
RICHARD JEFFERSON COUNCILL, B.S.....	Geology and Geography
HERBERT WALTON COX, M.P.H.....	Public Health
DORIS LEE CRAIG, B.A.....	Chemistry
CRAYTON McCANTS CRAWFORD, B.S.....	Chemistry
*RICHARD ERNEST DAHLBERG, A.B.....	Geology and Geography
ANN FLEMING DEAGON, A.M.....	Classics
EDITH LEWIS DUERR, S.M.....	Bacteriology
†PATRICK FRANCIS EAREY, A.B.....	Physical Education
†PHILIP REX FERGUSON, M.S.....	Chemistry
GLEN HARRY FISHER, A.M.....	Sociology
†THOMAS CECIL FRAZIER, JR., A.B.....	Chemistry
EDWIN OCTAVIUS GOOCH, B.A.....	Geology and Geography
GORDON MURRAY GOODALE, A.M.....	Chemistry
ANNA DEVIN GRAHAM, B.S.....	Dramatic Art
JACK RAYMOND GRAHAM, A.B.....	Chemistry
LAWRENCE EUGENE GRAVES, B.A.....	Dramatic Art
ROGER THACKSTON GUTHRIE, B.S.....	Chemistry
JAMES EDWARD HAAR, A.B.....	Music
JAMES GRAYSON HALL, A.B.....	Public Health
JOHN GAMAGE HAESLOOP, B.S.....	Botany
FRANCIS CARL HAMMERNESS, B.S.....	Pharmacy
WILLIAM GARY HOOKS, S.B.....	Geology and Geography
GAYLOR EUGENE HOOKS, B.S.....	Physical Education
†ROBERT JOYCE HOOPER, A.B.....	English
JAMES KNIGHT HUMMER, M.S.....	Chemistry
WILLIAM BOWMAN JEFFRIES, B.S.....	Zoology
JAMES MURRAY JENNINGS, B.S.....	Geology and Geography
RICHARD HEEZIN JOHNS, S.B.....	Chemistry
ROBERT MARVIN JOHNS, B.S.....	Botany
SIDNEY PICKETTE JOHNSON, B.S.....	Botany
CHARLES ALFRED KELLOGG, B.A.....	Dramatic Art
JOHN VINCENT KILLHEFFER, B.S.....	Chemistry
CHARLES WESLEY KIM, A.B.....	Public Health
ELIZABETH ANNE LEAGUE, A.B.....	Botany
†BYRON EUGENE LOGAN, A.B.....	Geology and Geography

* Fall quarter only.

† Beginning winter quarter.

JOHN WARD MCKENZIE, M.S.	Zoology
MARY CARLISLE MCMASTER, A.B.	Zoology
ARNOLD LAWRENCE MCPETERS, S.B.	Chemistry
WILLIAM CONNIE MATHIS, S.B.	Chemistry
†CHARLES EDWARD MILLER, B.S.	Botany
CHARLES NORMENT MULDROW, JR., B.S.	Chemistry
CLINE RICHARD MUNSEY, A.B.	Public Health
THOMAS JACKSON NICHOLS, B.M.	Music
WILLIAM ANDERSON OLSEN, JR., B.S.	Geology and Geography
CHARLES STUART PATTERSON, B.S.	Chemistry
JAMES EDWARD PAYNE, B.A.	Geology and Geography
*HENRY EARLY PHELPS, S.B.	Bacteriology
†MELVIN PODELL, S.B.	Chemistry
HERMAN JOHN PRESEREN, M.A.	Education
†CHARLES CROWLEY RICE, JR., A.B.	Physical Education
JEAN ROTHERHAM, B.A.	Biological Chemistry
NORMAN MACGREGOR RUGHEIMER, S.B.	Chemistry
JAMES EARL SANSING, B.S.	Chemistry
ROBERT BERNARD SELIGMAN, S.B.	Chemistry
OZZIE NORMAN SIMPKINS, M.A.	Sociology
ROBERT EDMOND SIMPSON, B.S.	Biological Chemistry
RICHARD FRANKLIN SNAVELEY, B.A.	Dramatic Art
*EMILY MILDRED STACY, A.B.	Botany
EARL EUGENE STEVENS, M.A.	English
JAY MERRIMON THOMAS, B.S.	Psychology
WOODROW WILSON TINGLE, S.B.	Geology and Geography
ELIZABETH CLAIRE UMSTEAD, B.S.	Physical Education
PAUL THOMAS VON BRAMER, S.B.	Chemistry
RICHARD ISLEY WALKER, B.S.	Anatomy
ROLLIN HERBERT WALLICK, A.B.	Chemistry
ALEXANDER GRADY WEBB, JR., B.S.	Anatomy
WILLIAM PLAXICO WHITESIDES, JR., B.S.	Music
ERNEST WARRINER WILLIAMSON, A.B.	Physical Education
JOSEPH CHARLES WOOD, JR., M.M.	Music
WILLIAM ARTHUR WOOD, B.S.	Chemistry
CLAUDE LEE YARBRO, JR., B.A.	Biological Chemistry

Research Assistants

SIDNEY BALDWIN, M.P.A., Institute for Research in Social Science
 ERNEST ALFRED THOMSON BARTH, A.B., Institute for Research in Social Science

* Fall quarter only.

† Beginning winter quarter.

- ROBERT JERRY BLACKWELL, B.A., Atomic Energy Commission, Physics
 HUBERT MORSE BLALOCK, A.B., Institute for Research in Social Science
 FRANK BURKHEAD BROWN, JR., M.S., Atomic Energy Commission, Physics
- ELMER LEROY CAIN, B.S., Institute for Research in Social Science
 GEORGE HARDY CALLCOTT, M.A., Institute for Research in Social Science
- *LECONTE CATHEY, M.S., Atomic Energy Commission, Physics
 RUTH MATHILDE CONNOR, M.S., Institute for Research in Social Science
 HERBERT WOLFGANG EBER, B.A., Institute for Research in Social Science
- WILLIAM FUTTER ELKIN, M.S., M.S.P.H., School of Public Health (Biostatistics)
 ELIZABETH MARSHALL FINK, B.S., Institute for Research in Social Science
- JOHN CHARLES GIBSON, A.B., Institute for Research in Social Science
 ELIZABETH KATHLEEN GOLDIE-SMITH, M.S., Botany
 CHARLES MEADE GRIGG, A.M., Institute for Research in Social Science
 WALDO EMERSON HAISLEY, JR., S.M., Atomic Energy Commission, Physics
- IDA ANN HARPER, A.B., Institute for Research in Social Science
 ROBERT GILBERT HOFFMAN, M.S., School of Public Health (Biostatistics)
- LAURA GEM HOLMES, M.A., Institute for Research in Social Science
 WILLIAM KELVEY HUBBELL, A.B., Institute for Research in Social Science
- BARBARA JEAN JOHNSTON, A.B., Institute for Research in Social Science
 †MILDRED BEATRICE KANTOR, A.B., Institute for Research in Social Science
- NORBERT LAWRENCE KELLY, M.A., Institute for Research in Social Science
 WELTON JOHN McDONALD, M.A., Institute for Research in Social Science
- JAMES JOSEPH MASLOWSKI, B.A., Institute for Research in Social Science
- *LEONARD MATIN, B.A., Institute for Research in Social Science
 DOROTHY MAE MULBERRY, B.S., Romance Languages

* Fall quarter only.

† Beginning winter quarter.

JAMES PHILLIPS PARKER, B.S., Atomic Energy Commission, Physics

*HENRY EARLY PHELPS, S.B., Bacteriology

ANNA FRANCES SHAND, B.S., Institute for Research in Social Science

MORRIS SKIBINSKI, A.M., Naval Research, Mathematical Statistics

HARRY SMITH, JR., M.A., School of Public Health (Biostatistics)

SARA ELIZABETH SMITH, A.M., Institute for Research in Social Science

MARJORIE LEE TALLANT, A.B., Institute for Research in Social Science

EVERETT PALMER TRUEX, A.M., Economics and Business Administration

SEWARD WEBER, A.B., Institute for Research in Social Science

ROBERT SMITH WEYNAND, B.S., Institute for Research in Social Science

Research Associates

MEYER DWASS, M.A., Naval Research, Mathematical Statistics

SUDHISH GOVIND GHURYE, M.S., Naval Research, Mathematical Statistics

WILLIAM JACKSON HALL, M.A., Naval Research, Mathematical Statistics

Research and Special Fellows

JAMES EARL DANIELEY, A.M., Ledoux Fellow in Chemistry

ALFRED DESCLOUX, *diplôme*, General Education Board Fellow in Mathematical Statistics

ROY JACKSON FAHL, JR., B.S., Eli Lilly Fellow in Chemistry

FRANK LEONARD HENDRIX, M.S., Abernethy Fellow in Economics and Business Administration

NOBIE WARREN JONES, M.P.H., State Board of Health Teaching Fellow in Public Health

SIGEITI MORIGUTI, *Kogakusi*, Research Fellow in Mathematical Statistics

LOUIS DUBOSE QUIN, A.M., Tennessee Eastman Fellow in Chemistry

MARTIN ROEDER, M.S., Atomic Energy Commission Fellow in Zoology

*JAMES KINLAW ROSSER, B.S., Merrell Fellow in Chemistry

MELDRUM BARNETT WINSTEAD, JR., A.M., DuPont Fellow in Chemistry

Non-Service Fellows

CURTIS SPENCE BOOTH, A.B., Mary Taylor Williams Fellow in Philosophy

WILLIAM DAVIS CASH, B.S., American Foundation for Pharmaceutical Education Fellow

* Beginning winter quarter.

- HERBERT JOSEPH DOHERTY, JR., M.A., Waddell Memorial Fellow in History
- ANNE LOVICK EDWARDS, A.B., Consolidated University Fellow
- ENRIQUE CARLOS EZCURRA, M.A., Mary Taylor Williams Fellow in Philosophy
- †ALVIN ARTHUR FAHRNER, A.M., Waddell Memorial Fellow in History
- LEON IRWIN HONIGBERG, B.S., North Carolina Pharmaceutical Research Foundation Fellow
- ENOCH LAWRENCE LEE, JR., A.M., North Carolina Society of the Cincinnati Fellow in History
- †PAUL ARTHUR MARROTTE, A.M., Waddell Memorial Fellow in History
- JOHN WALTER MARTIN, JR., B.A., B.S., American Foundation for Pharmaceutical Education Fellow
- EDWIN MOLINE, JR., B.A., Graham Kenan Fellow in Philosophy
- JOHN NOBLE PHILLIPS, M.A., Bertha Colton Williams Fellow in Philosophy
- WILLIAM JOHNSON SHEFFIELD, S.M., North Carolina Pharmaceutical Research Foundation Fellow
- WILLIAM WEST TAYLOR, B.S., North Carolina Pharmaceutical Research Foundation Fellow
- FREDERICK WILSON TEARE, B.S., North Carolina Pharmaceutical Research Foundation Fellow

Scholars

- †BRUCE MINTON BROWN, B.A., Service Scholar in the Institute for Research in Social Science
- TED RAND CREECH, A.B., University Scholar in Romance Languages
- PHILIP NEWTON FLUM, JR., A.M., Service Scholar in Comparative Linguistics
- RICHARD MICHAEL FORBES, B.A., Service Scholar in the Institute for Research in Social Science
- NORMAN EUGENE JARRARD, A.B., University Scholar in English
- *MILDRED BEATRICE KANTOR, A.B., Service Scholar in the Institute for Research in Social Science
- CLAUDE EUGENE MCKINNEY, A.B., University Scholar in Art
- JOHN ALEXANDER REA, M.A., Service Scholar in Comparative Linguistics
- WILLIAM EDWARD RUTHERFORD, A.B., Service Scholar in Romance Languages

* Fall quarter only.

† Beginning winter quarter.

TWILA MAE STOSS, A.B., Service Scholar in Psychology

JAMES CLARENCE WALLACE, B.S., A.B., LL.B., Service Scholar in History

ARTHUR FRANKLIN YOUNG, B.A., Service Scholar in the Institute for Research in Social Science

John Motley Morehead Scholars

EDWARD GEORGE BILPUCH, S.B., Physics

EDGAR TED CHANCLER, B.S., Medicine

SAMUEL BALFOUR JOYNER, B.S., Medicine

JOHN DOBBINS KELTON, B.S., Psychology

WILLIAM FREDERICK LITTLE, B.S., Chemistry

GENE WOODARD MEDLIN, B.S., Mathematics

FRANCIS LANNEAU NEWTON, B.A., Classics

HUGH FRANKLIN RANKIN, B.A., History

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 Governments, 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-six of the forty-six 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 was reopened with the Reverend Dr. Charles Phillips as Chairman of the Faculty (1875-76). From 1876 to 1949 the University had seven presidents, each of whom made a distinct contribution to its expansion and progress. Dr. Kemp Plummer Battle (president 1876-1891) reorganized the University in 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 of 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 at large, increased resources for administrative and building purposes, and a strengthening of student morale and honor standards. President Harry Woodburn Chase (1919-1930) guided the University through a period of rapid physical expansion, and during this time the University achieved 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, the high point up until that time. Increasing emphasis was shown in the 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. Professional schools of law, medicine, pharmacy, engineering, education, and commerce attained a standing which gave the University its widening reputation.

Under President Frank Porter Graham (1930-1949) the University continued to make progress. The administrative consolidation of the University, 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, Religion in 1947, and Astronomy in 1950 in connection with the \$3,000,000 Morehead Building and Planetarium which was completed in 1949.

The Division of Health Affairs was organized in 1949 and includes the schools of Medicine, Public Health, and Pharmacy; the new schools of Nursing and Dentistry; and the University Hospital. It was established for the purpose of integrating the work of all of the health professional schools and the hospital in their teaching and research programs within the University.

In 1950, by action of the Board of Trustees, 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 service of the University and its alumni was particularly noteworthy. More than 10,000 students and alumni, not including Navy and Army personnel sent to Chapel Hill for training, entered the armed forces. More than 300 lost their lives in 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 ROTC unit, which was established in 1940 and still continues, was the core of the Navy's V-12 program at the University. Army and Army Air Corps groups were trained on the campus. Many members of the faculty were given leaves of absence for war service, and a number of University departments were engaged in research programs for the armed forces, for government, and for industry. Throughout the war period the University maintained also its normal curriculum offerings.

On March 22, 1949, Governor W. Kerr Scott appointed President Graham to the Senate of the United States. Pending the election of

a new president, Controller W. D. Carmichael, Jr., was designated Acting President. By the unanimous vote of the entire membership of the Board of Trustees, Gordon Gray was elected President of the University on February 6, 1950. He assumed full responsibility for the office on September 23, 1950, and was officially inaugurated as president on October 10, 1950.

On May 22, 1951, upon the recommendation of President Gray, two new positions were created in the general administration of the University. Under the by-laws passed at that time by the Board of Trustees, the Controller was made Controller and Vice-President and an additional vice-presidency was created. The chancellors and vice-presidents of the several branches of the University became chancellors of those branches. Dr. Logan Wilson was chosen as the new vice-president and assumed his duties in the fall of 1951.

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 the late 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 15-17.

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 increased rapidly and in 1948-1949 reached 7,603, the highest figure to date. The evidence indicates continued increased enrollment as facilities are provided.

In the past thirty years there have been three notable periods of expansion in the physical plant of the University. The first occurred in the 1920's, the second in the late 1930's and the early 1940's, and the third during World War II, when the University expanded its facilities to accommodate Navy and Army training programs on the campus. The 1947 and 1949 legislatures projected a fourth period of building activity when they made appropriations totaling \$20,028,800 for permanent improvements. These improvements include the expansion of the two-year School of Medicine at Chapel Hill to a four-year school with a teaching hospital; four new dormitories for men; a great increase in the capacity of the library; expansion of the University's utilities and service plants; buildings for the schools of Nursing and Dentistry; living quarters for nurses, internes, and residents; a Public Health research laboratory building; additions to the Law and Chemistry buildings; and new quarters for the School of Business Administration. The total value of the physical plant when these facilities are completed and in use is estimated at approximately \$42,000,000.

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.*

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 Science in Chemistry
- Bachelor of Science in Geology
- Bachelor of Science in Physics
- Bachelor of Science in Medical Technology
- Bachelor of Science in Public Health Nursing
- Bachelor of Science in Public Health
- Bachelor of Science in Bacteriology

* For more detailed information concerning the University, see Kemp Plummer Battle's two-volume *History of the University of North Carolina*, published 1907-12; and Archibald Henderson's *The Campus of the First State University*, published 1949.

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 Teaching

THE SCHOOL OF JOURNALISM

Bachelor of Arts in Journalism

THE GRADUATE SCHOOL

Master of Arts
Master of Arts in Creative Art
Master of Science
Master of Science in Industrial Relations
Master of Science in Library Science
Master of Science in Personnel Administration
Master of Science in Public Health
Master of Science in Sanitary Engineering
Master of Education
Master of Social Work
Master of Music
Master of Public Health
Master of Regional Planning
Master of School Librarianship
Master of Business Administration
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 LIBRARY SCIENCE

Bachelor of Science in Library Science

THE SCHOOL OF SOCIAL WORK

(see above)

DIVISION OF HEALTH AFFAIRS

THE SCHOOL OF MEDICINE

Bachelor of Science in Medicine (see above)

THE SCHOOL OF PUBLIC HEALTH

(see above)

THE SCHOOL OF DENTISTRY

Bachelor of Science in Dentistry (see above)

Doctor of Dental Surgery

THE SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

THE SCHOOL OF NURSING

Bachelor of Science in Nursing

SUMMER SESSION

In the Summer Sessions are offered many courses for which regular University credit is allowed, including special courses designed primarily for the teachers of the state. Practically all the work offered is of collegiate grade and may be counted toward some degree from the University.

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 colleges and universities throughout the United States.

Detailed information on the Naval Reserve Officers Training Corps Unit is in Part IV of this catalogue, pages 327-31.

Department of Air Science and Tactics

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 and Tactics.

Detailed information on the Air Force Reserve Officers Training Corps Unit is in Part IV of this catalogue, pages 216-22.

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, and to the School of Nursing of the University. 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 quarter in which a student desires to enroll.

WOMEN STUDENTS: Women students are eligible to enter the School of Pharmacy, the College of Arts and Sciences, the School of Business Administration, the School of Education, and the School of Journalism on the same basis as men. Women are eligible to enter the School of Nursing as freshmen. Application blanks for admission may be secured by writing to the Dean of the School of Nursing. Only those women who are permanent and bona fide residents of Chapel Hill are eligible for admission to the General College.

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

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

HEALTH: Each applicant is required to submit with his application for admission a medical history properly completed by his physician. Each registrant is required to have a physical examination by the University Physician immediately before the period of his first registration.

ADMISSION TO FRESHMAN STANDING

Formal application for admission to freshman standing in the General College, the School of Nursing, or the School of Pharmacy 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 and to the School of Pharmacy, see the catalogues of those schools. Fifteen units are required for admission to the General College. 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 138-46. 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 R or 7 here or by 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, 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 fourth quarter in residence, not counting the summer quarter.*

A graduate of a non-accredited high school or 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, a written examination, and other information requested by the Committee on Admissions. He will be expected to have ranked, academically, in the highest one-fourth of his graduating class.

SPECIAL STUDENTS

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 students' 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. They are required to pass all of their courses in order to be eligible to continue in the University.

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 133-46) 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. Provisions may be made for the removal of a deficiency in the exact requirements of the first two years.

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 present a properly certified transcript of his record at that college or university at least fifteen days before the opening of the term in which the applicant desires to enroll. Application blanks may be secured by writing to the Director of Admissions. Each transfer student must submit a fee of \$5.00. If the applicant is not accepted, the fee is returned; if he is accepted and enrolls as a student, the fee will be applied against the bill at his first registration; if he is accepted but does not enroll, the fee will be forfeited regardless of the reason involved.

Each transferred record will be evaluated in terms of requirements here. A transferring student is expected to present at least a C average on the work taken at other institutions. 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.

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, winter, spring, and summer quarters of approximately twelve weeks each, the summer quarter being divided into two terms of about six weeks each. The School of Law divides its work into two semesters, also conducting a summer session coinciding in extent with one summer term in academic subjects. There is a Christmas recess of approximately two weeks.

Religious Influence

The deep concern of the University for the religious life of the student is symbolized by the centrally located YMCA and YWCA building. Functioning in the heart of the campus and led by out-

standing directors, these Christian Associations minister to the student body. In addition to their own programs and services, the YMCA and YWCA serve as channels of communication into the campus for the various denominational groups.

The churches of Chapel Hill, representing most of the denominations, provide an effective ministry to the students in their services of worship and weekly religious programs. The larger denominations also make available, through their state and national boards, the services of young pastors who work exclusively with students. These pastors, having official faculty recognition, work in close cooperation with the campus religious agencies.

The University has recently established a Department of Religion, offering courses in the history, literature, and interpretation of religion. All students thus have the opportunity to study with competent professors who can lead them to a better understanding and appreciation of their religious faith.

The Council on Religious Life, whose chairman is the Chancellor of the University, includes in its membership the deans of the colleges, chairmen of departments, college pastors, YMCA and YWCA directors, and other key persons on the campus. The Council, divided into four committees, serves to coordinate all religious activities, to provide counseling service for students, to supervise chapel and convocations, and to sponsor new approaches to religious emphasis among the students. The Department of Religion is a direct outgrowth of this Council's study and interest.

Physical Education

A thorough physical examination is given to students at the time of entrance. 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 three periods each week for the first two years; and of all undergraduate women two periods each week for the first three years. A three-quarter-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 1951-1952 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 for any additional service (consultation, special nurses, and operations), recommended by the attending physician and approved by the parent or guardian.

THE DIVISION OF STUDENT WELFARE

The Division of Student Welfare was established to coordinate and promote the work of all University agencies and organizations affecting the welfare of students. Its work is understood to embrace all University relationships with students other than formal instruction.

The function of the Welfare Board is twofold: first, that of a coordinating agency for the various officers of instruction and administration whose work directly affects student welfare; second, that of affording regular clearance between these officers of the University and representative student leaders. The Chancellor is a member, *ex officio*, of this board.

The Welfare Board

FREDERICK HENRY WEAVER, *Chairman*

LEE ROY WELLS ARMSTRONG

DUDLEY DEWITT CARROLL

JOHN SAMUEL BENNETT

OLIVER KELLY CORNWELL

*KATHERINE KENNEDY CARMICHAEL

HARRY WOLVEN CRANE

* Absent on leave, 1951-1952.

GAY WILSON CURRIE
 ROBERT ALLISON FETZER
 JOSEPH MORGAN GALLOWAY
 EDWARD MCGOWAN HEDGPETH
 RAYMOND LEWIS JEFFERIES, JR.
 CECIL JOHNSON
 ARNOLD KIMSEY KING
 EDWIN SIDNEY LANIER
 ERNEST LLOYD MACKIE
 ELIZABETH PARKER

WILLIAM DECATUR PERRY
 GUY BERRYMAN PHILLIPS
 JOSEPH MARYON SAUNDERS
 CLAUDE CORNELIUS SHOTTS
 CORYDON PERRY SPRUILL
 CLAUDE EDWARD TEAGUE
 JAMES EDGAR WADSWORTH
 WILLIAM SMITH WELLS
 *ALPHA BURKART WETTACH

Because of the close relationship of this division to student life, there is an Advisory Committee composed of students appointed annually by the Chancellor of the University on the joint nomination of the President of the Student Body and the Chairman of the Board. The following were appointed for 1951-1952:

Student Advisory Committee

LUCILE KELLY BEST
 LARRY FRANCIS BOTTO
 HENRY BOWERS
 RICHARD FLOYD DAVIS, JR.

JOYCE ANN EVANS
 GLENN ABBOTT HARDEN
 ALLAN FRANCIS MILLEDGE
 JOHN HENRY ROBISON, JR.

STUDENT GOVERNMENT

Officers of the Student Body, 1951-1952

HENRY BOWERS.....*President of the Student Body*
 RICHARD FLOYD DAVIS, JR.....*Vice-President of the Student Body*
 JAMES HERBERT MCINTYRE.....*Secretary-Treasurer of the Student Body*

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 and the Secretary-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

* Acting Dean of Women, 1951-1952.

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 all rules governing coeds and for coordination of women's activities.

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

Student Council Members

LARRY FRANCIS BOTTO, *Chairman*

JOAN MARION CHARLES
WINNIFRED JEAN WHEELER
PATRICIA ANN GEORGE
EDGAR LOVE, III

ROBERT NORWOOD ELLINGTON
HAMILTON COWLES HORTON, JR.
THOMAS HILLIARD STATON
WILLIAM THOMAS WOLF

Men's Council Members

ALLAN FRANCIS MILLEDGE, *Chairman*

GEORGE KIRBY FREEMAN, JR.
DANIEL ELIJAH PERRY
HOBSON DEHAVEN CHINNIS
JAMES ALBERT HOUSE, JR.
JOSEPH ROBERT PRIVOTT

JOHN LIVINGSTON HAZLEHURST, III
JOSEPH JETHRO ALLEN
ROBERT LOUIS STRICKLAND
WILLARD IRVING WALKER
SAMUEL HOWARD PRICE, JR.

Women's Council Members

JOYCE ANN EVANS, *Chairman*

EVELYN ADAIR BEASLEY
ELIZABETH JANE FRIEZE
JOSEPHINE WOOD GAITHER
BETTY ANN REESE

ELIZABETH ANN ROYALL
GREVILDA WILHEMINA SNIDER
MARY ELLEN STRIBLING
MARY JANE WILSON

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.

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 offences traditionally requiring suspension are cheating, stealing, lying, drunkenness, and gambling.

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 and instruction in remedial reading is provided for students who wish to improve their reading skills. Students who are having academic difficulties, who are inefficient readers, or who have been unable to make a suitable vocational choice may find these services of particular value. Additional information on this service may be found on page 417.

PLACEMENT SERVICE

Through its placement facilities the University aids students and alumni in solving the problem of post-graduate employment. Although the professional schools are directly concerned with the employment of their graduates, the Placement Service serves as a coordinating agency for all campus groups. It is concerned also with

employment opportunities in business, industry, and government. Registration is voluntary and is at no cost to the applicant.

Students are encouraged during their final year to: (1) Complete a personnel file including a summary of college activities, confidential ratings from faculty members, and a transcript of courses and grades; (2) arrange for interviews with employer representatives who visit the campus; (3) make use of occupational information and company literature which is available upon request.

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.

UNIVERSITY ORGANIZATIONS

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

Religion and Student Welfare

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 Y.M.C.A. Building.

The Council of Religion includes in its members the presidents of all student religious organizations on the campus. It is interdenominational and interfaith in character and seeks to coordinate the work of the individual student religious organizations. It also studies the total religious needs of the campus, suggests ways of meeting these needs more adequately, and initiates proposals for strengthening the programs of its member organizations and advancing the religious work of the campus.

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.

The Carolina Political Union, a group of students and faculty members, holds regular forums for the discussion of current political and economic problems and brings to the campus speakers prominent in national and state political life.

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, gives ample opportunity to students for the writing, production, and

acting of plays, as well as for the designing of scenery, stage settings, and lighting effects. For further information see page 435.

Sports and Sportsmanship

Intramural Activities provide a program of competitive sports and recreational activities for voluntary participation by students and faculty members. Competition is conducted within the fraternity division and the dormitory-independent division. A play-off between the division champions then determines the University championship. In addition, badminton, fencing, and dance clubs are sponsored annually by the Intramural Department. No additional fees are charged students for any phase of the intramural activities.

The Women's Athletic Association provides for every woman student opportunities for participation in many recreational activities and tournaments. Its program is organized and conducted by a student 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 enthusiasm and good sportsmanship in all University events and contests by sponsoring pep rallies, entertaining visiting teams, and building school 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 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 and Miscellaneous

The University Veterans Association, composed of students and faculty who are veterans of World War II, provides an organization for consideration of problems of interest primarily to veterans.

The Independent Coed Board, 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.

Town Girls Association 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 group has a room set aside for its use on the second floor of the Y.M.C.A. Building.

The University Dance Committee has as its objective the role of host at University dances and the task of maintaining order at dances sponsored by campus organizations. 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 quarter or their first three quarters 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, similarly recognizes and honors the outstanding women students, 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 was 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 for men, 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.

Chi Delta Phi, national literary recognition society for women, was organized at the University of Tennessee in 1919. The Tau Chapter was established here in 1925. It attempts to associate interested women of literary ability in promoting the ideals of a liberal education.

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.

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 1932.

PUBLICATIONS

The Publication Board of the University is the publishing and policy-forming agency for two student publications—*The Daily Tar Heel* and *The Yackety-Yack*. Composed of two faculty members appointed by the Chancellor, four student members elected by the student body, and one member elected by the Student Legislature, the Board has complete control over the financial policies of the publications under its jurisdiction and employs a financial coordinator to implement its policy decisions. *The Daily Tar Heel* and *The Yackety-Yack* are financed by appropriations from student fees and by advertising. The editor of each is elected by the student body, and he appoints his staff subject to the approval of the Publications Board.

The Daily Tar Heel is the student newspaper and is published six times a week. The paper is completely edited and prepared by students and gives opportunity for practical experience to both journalism and business students.

The Yackety-Yack is the yearbook. This publication presents in pictorial form a record of campus achievements and activities during the academic year.

A third campus publication is the *Carolina Quarterly*, a magazine devoted to providing a literary outlet for local writers. Not under the jurisdiction of the Publications Board, this journal is published by a student committee assisted by a faculty advisory committee composed of three members of the English faculty and two members of the Journalism faculty. The advisory committee selects the student staff. Financed by subscription, the *Quarterly* appears three times a year. Contributors to this magazine include students, faculty, and writers outside the University community.

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 Quarter

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 Business Administration, School of Journalism, School of Social Work, and Graduate School are as follows:

Residents of North Carolina, each quarter.....	\$ 50.00
Non-residents of North Carolina, each quarter.....	120.00

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

FEES:	<i>General College, Arts & Sciences, Journalism, and Education</i>	<i>Business Administration</i>	<i>Social Work and Graduate</i>
Matriculation	\$24.50	\$24.50	\$24.50
Student Activities	5.00	5.00	3.85
Materials		2.00	
Laundry Deposit	10.00	10.00	10.00

The matriculation fee covers use of physical education facilities, infirmary, library, cost of registration, and membership in the Athletic Association. 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.

Laundry Deposit

Students are required to make an initial deposit of \$10.00 at the beginning of each quarter to cover laundry service at the University Laundry, and an additional deposit if the first is exhausted. Any amount not used will be refunded at the close of the spring quarter.

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 101, 102, 103, 104, 106	\$ 5.00
Anatomy 107ab	15.00
Anthropology 41, 74, 122, 126, 127, 128, 130, 132, 220, 229	1.00
Anthropology 79	3.00
Anthropology 106	10.00
Art 77, 83	7.50
Art 93abc	2.50 each
Art 44, 45, 46, 48, 49, 50, 55, 80, 81, 84, 86, 87, 110	7.50
Art 54, 85, 108, 109, 111, 112, 113	10.00
Art 82	12.00
Art 104 105, 106	15.00
Art 120, 121, 122, 240abc, 241abc, 242abc, 243abc, 250abc, 252abc, 253abc	20.00
Astronomy 31, 32	3.00
Bacteriology 51	4.00
Bacteriology 107, 112	6.00
Bacteriology 110	7.50
Bacteriology 101, 104, 106, 115, 116, 117, 151, 132	10.00
Bacteriology 120, 220	12.00
Bacteriology 301, 302, 303	to be determined
Biological Chemistry 101, 102, 103, 123, 201, 202, 203, 301, 302, 303	10.00
Botany 1	2.00
Botany 41, 42, 43, 102, 103, 104, 111, 112, 113, 141, 151, 153, 154, 155, 157, 158, 166, 176, 211, 212, 213, 251, 252, 253, 301, 302, 303	4.00
Botany 45	6.00
Botany 121, 122, 221, 222, 223	8.00
Botany 145, 147	10.00
Business Administration 71, 72, 153, 156, 159, 173, 175, 177, 179, 255, 273, 274	3.00
Business Administration 157	6.00
Chemistry 1, 2, 3, 83	3.00
Chemistry 31, 41, 42, 51, 61, 62, 63, 145, 146, 147, 148, 154, 161, 163, 164, 165, 166c, 167c, 168c, 181, 182, 183, 196, 231, 341, 351, 361, 381, 391	10.00
Chemistry 101, 267	to be determined

City and Regional Planning 191	2.00
City and Regional Planning 170	3.00
Composition Condition Laboratory	10.00
Dramatic Art 40, 55	1.50
Dramatic Art 61, 63, 64, 65, 66, 67, 70A, 71, 75, 193, 200, 202	2.00
Dramatic Art 57, 155, 156, 157, 201	3.00
Dramatic Art 85	5.00
Dramatic Art 86, 90	10.00
Economics 171, 172, 173	3.00
Economics 170	3.00
Education 62, 64, 78, 79, 80, 82, 84a, 84b, 86, 88, 90, 92, 94 (per 10 to 15 hours)	20.00
Education 71, 135	2.00
Education 112	1.00
Education 221	5.00
English 40, 41, 44, 55, 56	1.50
Folklore 122, 127, 128, 132	1.00
French 84	10.00
Geography 39, 75, 131, 132, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160	2.00
Geography 38	3.00
Geography 71, 117, 171	5.00
Geography 64, 118, 164	3.50
Geology 127, 271, 272, 273	2.00
Geology 111, 112	3.00
Geology 1, 41, 42, 61, 64, 121, 122, 123, 164, 166, 224, 225, 226, 227, 228, 229, 265, 281, 282, 283, 284	3.50
Geology 102, 103, 104, 105, 106, 107, 108, 109, 110, 144, 145, 146, 168, 169, 221, 222, 223, 241, 242, 243, 244, 245, 246, 247, 248, 249, 261, 262, 285, 286, 287, 288, 289	5.00
Geology 101, 117, 128, 129, 147	10.00
German 101x, 102x, 103x	10.00
History 1, 2, 175	1.00
Journalism 53, 54, 55, 57, 59, 62, 63, 67, 72, 73	2.00
Journalism 80	5.00
Mathematics 41, 42	1.00
Mathematics 51, 52	4.00
Music 41, 54, 55, 56	1.00
Nursing 1, 3	1.00
Nursing 2, 86	2.00
Nursing 42, 55, 80, 81, 85	3.00
Nursing 35, 41, 50, 60, 70	5.00
Nursing 30, 31, 51, 61, 65, 71, 87, 90	10.00
Nursing 40	20.00
Nursing 91	25.00
Pharmaceutical Chemistry 282	1.00
Pharmaceutical Chemistry 64, 65	5.00
Pharmaceutical Chemistry 61, 62, 63, 171, 172, 173, 241b, 242b, 243b, 271b, 272b, 273b, 391, 392, 393	10.00
Pharmacognosy 42	6.00
Pharmacognosy 45	6.00
Advanced Pharmacognosy 142	4.00
Advanced Macro-pharmacognosy 145	10.00
Advanced Micro-pharmacognosy 147	10.00
Research in Materia Medica and Pharmacognosy 391, 392, 393	10.00
Pharmacology 55	5.00
Pharmacology 161, 162, 301, 302, 303	10.00
Pharmacology 171a, 171b, 171c	15.00

Pharmacy 12, 83	5.00
Pharmacy 21, 81, 82, 91, 92, 93	7.50
Pharmacy 24, 45, 61, 62, 64, 65, 162, 163, 191, 192, 193, 251, 252, 253, 261, 271, 391, 392	10.00
Physical Education 221	5.00
Physics 42, 45, 52, 53, 55, 56, 57, 61, 62, 120, 141, 158, 162	3.00
Physics 20, 24, 25, 34, 35	4.00
Physics 91, 92, 280	5.00
Physics 51	15.00
Physiology 51, 141, 301, 302, 303	5.00
Physiology 106	7.50
Physiology 142, 201, 202, 206, 211, 212	10.00
Political Science 41, 42, 52, 53, 81, 82, 87, 101, 105, 121, 123, 126, 127, 132, 133, 134, 141, 142, 144, 145, 147, 151, 155, 156, 157, 158, 162, 165, 166, 167, 175, 181, 185, 210, 221, 225, 231, 235, 241, 286, 301, 305, 311, 321, 331, 342, 343, 361	1.00
Psychology 125, 130, 132, 135, 225, 226, 230, 232	2.00
Psychology 24, 25, 147, 148, 149, 150, 151, 152, 153, 181, 201, 202, 205, 247, 249, 250, 251, 252, 253, 341, 342	3.00
Public Health 121, 135, 281	3.00
Public Health 165, 261	3.50
Public Health 131, 151, 233, 234, 262, 272, 273, 274	4.00
Public Health 163, 164	5.00
Public Health 232	8.00
Public Health 361, 371, 381	10.00
Public Health 332	15.00
Public Health 17	20.00
Radio 70, 71, 72, 73, 75, 75s, 81	2.00
Radio 42	3.00
Radio 85	5.00
Radio 86, 90	10.00
Social Science 1, 2	1.00
Social Work 215, 216, 217, 218, 219, 220, 221	25.00
Social Work 101, 134, 174	1.00
Sociology 51, 52, 113, 122, 128, 133, 167, 168, 171, 174, 181, 182, 186, 190, 198, 208, 215, 218, 220, 229	1.00
Sociology 191, 197, 253	2.00
Spanish 84	10.00
Zoology 1	3.00
Zoology 209, 210, 211	5.00
Zoology 41, 42, 106, 107, 108, 109, 110, 111, 112, 212, 213, 215, 222	7.50
Zoology 316	7.50 or more
Zoology 330, 331, 332, 333, 334, 335, 336, 337, 338, 339	(per 5 hours) 7.50
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 quarter.

Application Fee

Each application for admission to advanced standing must be accompanied by a transcript evaluation fee of \$5.00. If the applicant is not accepted the fee is returned; if he is accepted and enrolls as a student, the fee will be applied against his bill at his first registration; if he is accepted but chooses not to enroll as a student the fee will be forfeited.

Charges for Credit Obtained by Examination

Students who take examinations for credit for advanced standing will be charged \$1.00 for each quarter 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 only 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 \$3.00 is made to recipients of bachelors' degrees, \$4.25 to recipients of masters' degrees, and \$6.00 to recipients of doctors' degrees.

Refunds

A student withdrawing within the first week of any quarter is charged only a registration fee of \$5.00. If he withdraws after the first week, his bill will be prorated on the basis of one-eighth for each week (or part of a week) he attends. No refund will be made after the eighth week of any quarter.

Payment of Bills

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

ROOM AND BOARD

Dormitory Accommodations for Men

Accommodations for approximately 3,000 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.

Room rent ranges from \$6.00 to \$15.00 a month for each occupant, the price depending upon the location of the room. Rooms are leased for the scholastic year. Application for a room should be made to the University Cashier and should be accompanied by a deposit of \$6.00.

Dormitory Accommodations for Women

Six dormitories provide excellent accommodations for 620 women students. Spencer, Smith, McIver, Alderman, and Carr Halls are for undergraduates, while Kenan Hall is reserved for graduate and professional students.

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. Ordinarily such permission is granted in exceptional cases only.

Application for a room should be made to the Dean of Women, and should be accompanied by a deposit of \$6.00.

Rooms are rented upon the basis of the entire scholastic year. Payment is made in three installments, the first of which is due September first. The amount of each installment is determined by the annual rental price of the room and the length of each term.

Residents of Spencer Hall are required to board there. Residents of the women's buildings are given preference for vacancies in Spencer Hall dining room, but are privileged to board at any of the available boarding places.

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

The cost of room and board and details concerning payments may be found in the Handbook for Women Students or by correspondence with the Office of 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 at \$12 a week	\$408.00
Dormitory room, at \$8.33 a month	75.00
*Tuition	150.00
Matriculation and students' fees, estimated for freshman year	81.50
Laundry deposit	30.00
Books and supplies, estimated for year	25.50
Laboratory fees, estimated for the average freshman	10.00

TOTAL FOR NORTH CAROLINA RESIDENT.....\$780.00

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.

* 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 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 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 MARY RUFFIN 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 students 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 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, has 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 descendant of a Confederate veteran.

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 DANIEL G. FOWLE SCHOLARSHIP. (Established in 1928.) An annual scholarship of \$100 is awarded by Mrs. Walter F. Stearns (Mary H. Fowle) in memory of her father, Governor Daniel G. Fowle. Mrs. Stearns reserves the right to award the scholarship to a member of her own family; otherwise it will be awarded by the Superintendent of the Raleigh Schools and the Principal of the Raleigh High School

to one Raleigh student on the basis of merit, character, and scholarship.

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, of the Class of 1886, and supplemented in 1940 by an additional gift by Herbert Worth Jackson, Jr., the fund maintains two \$2,000 scholarships, awarded to entering freshmen, who shall be 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, achievements, physical health and vigor, and promise of future distinction. A four-year award is made every two years: 1951, 1953, 1955, etc.

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. Schol-

arships are awarded from time to time as the interest from a principal fund of \$25,000 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 KAY KYSER SCHOLARSHIPS. (Established in 1941.) A scholarship in music and a scholarship in dramatic art, established by Mr. Kay Kyser, Class of 1927, each providing one year's study in the University, including tuition, room, and board. Selection of the recipients, made by the Kay Kyser Scholarship Committee each year, is based on character, scholastic rank, qualities of leadership, achievements and promise of future distinction in music or dramatic art.

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.

GEORGE W. GRAHAM MEMORIAL SCHOLARSHIP FUND. (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.

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 Cabarras 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 applicants 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.

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 FUND. 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.) The scholarships are awarded, at present, to graduates of a selected list of universities and colleges of North Carolina who wish to pursue courses of study in the Graduate School or one of the professional schools of the University of North Carolina at Chapel Hill. The present value of each scholarship is \$1,500 per annum. The scholarship is awarded for one year. However, the Trustees have made provision to continue the scholarship for the full course of study required by the recipient if, in the opinion of the Trustees, the standard of the scholar's work and conduct continues to justify the scholarship.

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 this 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.

With the exception of the Morehead Scholarships 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. The University Scholarship Committee makes the awards,

annually, on or about May 15 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 principle 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. Underwood, of New York City, and consists of \$10,000 "to be used as a loan fund for needy students." This fund is 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.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND. (Established 1936.) A fund of approximately \$1,800 established by the local chapter of the American Association of University Women and administered by the University Loan Funds Office. Loans are made to women students enrolled in the Graduate School and in the School of Library Science. Applications are subject to approval by a committee of the Association upon recommendation of the Dean of the Graduate School or the Dean of the School of Library Science. Loans are limited in time to two years and require interest at the rate currently charged by the University for its regular loans.

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.

DAVID ANDERSON ALLEN FUND. Established in 1945 by the wife (Jennie Ann Efrid 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 of \$1,000 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 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), the 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 STUDENT LOAN FUND OF THE NORTH CAROLINA CONGRESS OF PARENTS AND TEACHERS, INC. A fund of \$750 loaned to the student loan funds by Mrs. J. W. Burke, Treasurer, by authority of the organization named above.

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 MCCAULL 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.

APPLICATION FOR LOANS

Applications for loans will be considered when made in person by students registered in the University. The funds are limited in amount and are loaned only on the security of two approved signatures and at a low rate of interest.

Self-Help Work

There are jobs available for 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 Self-Help Committee, 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 May 15, 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 two direct lines of his descendants as follows: Mr. Willie P. Mangum Turner of Winston-Salem, North Carolina, Class of 1900, and Mr. Willie P. Mangum Weeks of Washington, D. C., Class of 1915. 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 BINGHAM PRIZE IN DEBATE. (Established in 1889.) This prize was established by the late Mr. R. W. Bingham in memory of his great-grandfather, father, and brother, and is continued by Mr. Barry Bingham. It is awarded annually to that student who, while actively participating in debating, shall have been most useful in the support of this activity.

THE BRYAN PRIZE IN POLITICAL SCIENCE. (Established in 1903.) A prize will be given annually for the best thesis in political science. The fund was established by the late William Jennings Bryan.

THE ARCHIBALD HENDERSON PRIZE IN MATHEMATICS, formerly **THE WILLIAM CAIN PRIZE**. (Established in 1908.) A gold medal is offered annually to that student who shall take the highest rank in Mathematics 32-33 (or in Mathematics 34-35-36). No student will be recommended for the prize unless he attains at least to grade B.

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.

CHI OMEGA PRIZE IN SOCIOLOGY. A prize of \$25 is awarded by the local chapter of the Chi Omega Fraternity to the undergraduate woman student who writes the best paper on some subject in the field of sociology or public administration. The subject will be submitted to the undergraduate student body some time before February 15. Papers must be handed in by May 15. The Department of Sociology will select the subject and judge the papers. The prize will be awarded at commencement.

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 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 fellowmen. 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 JOHN JOHNSTON PARKER, JR., MEDAL FOR UNIQUE LEADERSHIP IN STUDENT GOVERNMENT. (Established in 1941.) This gold medal is given annually by 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 \$100 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, 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 ROBerson, JR., MEDAL. A gold medal is offered by Dr. and Mrs. Foy 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 VALKYRIE CUP AWARD. (Established in 1941.) The Valkyries are given funds annually from the Women's Residence Council to make this award available to the senior woman adjudged most outstanding on the University campus.

THE ALPHA CHI SIGMA PRIZE IN CHEMISTRY. (Established in 1942.) A prize of \$100 is awarded annually by the local Chapter of the Alpha Chi Sigma Fraternity to the undergraduate student of chemistry selected by a committee as best exemplifying high scholarship, leadership, and personality.

THE ALBERT RICHMOND BOND AWARD IN ENGLISH LITERATURE. This award was established in 1947 by Professor Richmond P. Bond in memory of his father. It is awarded annually by the Department of English to the member of the graduating class with the highest distinction in English literature.

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.

CAROLINA-DUKE PRIZE IN LITERARY CRITICISM. (Established in 1949.) A prize of \$100 is offered by Professor Norman Foerster for the best critical essay submitted by a student at the University of North Carolina at Chapel Hill or a student at Duke University. It is awarded at the discretion of the donor.

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 pub-

lished 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 interests of the students and the University.

Registration

All students are expected to register in accordance with the plan of registration established for the current year. All students registering here for the first time will report for physical examination to the Infirmary and present at registration a clearance card from the University Physician. Students failing to present such cards at registration are liable to an extra charge of five dollars (\$5.00).

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

Payment of Bills

Bills for the fall quarter are payable at the time of registration. Bills for the winter and spring quarters are payable at the Cashier's office on the first class day of the quarter, 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 five dollars (\$5.00).

Delayed Registration

Any student registering later than the time appointed for his registration must pay five dollars (\$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 will be allowed to take fewer than three full courses a quarter, unless he has the permission of his dean. A load up to eighteen hours a week may be taken without any restrictions; one of nineteen or twenty hours a week requires a scholastic average of at least C in the preceding quarter; one of twenty-one or more hours a week requires a scholastic average of at least B in the preceding quarter and the approval of the student's dean. A student may not take more than twenty-two hours a week.

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 Hall.

Changes in registration are limited to the first three full days of instruction of a quarter.

Assignment of Rooms

The rooms in the University dormitories and accommodations for families are assigned to students by the Housing Officer, subject to the special regulations given below.

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 dormitories.

In order to retain his room for the next scholastic year, each student must file with the Cashier before April 20 an application and a deposit of \$6.00 as an option. The rooms thus applied for will be retained until September 1, when first payment of rent is due. The option deposit will be forfeited in case the applicant does not himself pay the rent and occupy the room. Rooms not applied for or made vacant by failure to pay at the proper date will be assigned in the order of application.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt 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 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 dogs shall be kept in the University dormitories, trailer courts, Victory Village, Abernethy Hall, or Carolina Inn Apartments. Breach of this regulation leads to forfeiture of the room.

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 85-87.

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 attendance upon meetings of classes is considered a student obligation.

The responsibility for attendance is placed in the hands of the instructors in the various courses. Departments may make uniform regulations governing attendance if they so desire. No "allowed" number of cuts is automatically granted to a student in any course.

Instructors will keep a daily record of attendance and report to the Central Office of Records the name of any student who has been absent three consecutive meetings of a class.

Instructors will warn a student who has been absent more than seems reasonable. Further absences give instructors the right to request the dean concerned to exclude such a student from the class. If the dean is aware of extenuating circumstances, he will confer with the instructor before action is taken.

Any student who has attained the honor roll during two successive quarters will be exempt during the ensuing quarter from the regulations governing absences and exempt thereafter as long as he maintains the honor roll average. To the foregoing regulation there are to be the following exceptions: (a) the privilege of absences does not apply to requirements of attendance relative to written or laboratory work or to quizzes and examinations; (b) the privilege earned by the student will be forfeited if immediately before or after holidays he is absent without excuse; (c) it is understood that the instructor in any course has the right to consider participation by the student in class discussion as a necessary part of the work upon which he bases the final grade. Thus a student having the honor roll privilege who absents himself more than the instructor thinks is reasonable may earn

a lower grade, as a result of non-attendance, than would be shown by the examination grade alone.

Departments or instructors may, on occasion, permit a student to attend or engage in an educational activity other than that of the class as a substitute for class attendance.

The deans are expected to use their judgment in the matter of allowing a student to remain in residence after having been dropped from one or more classes. The deans also will cooperate with the instructors in bringing students to a realization of the consequences of excessive absences.

Instructors will report to the Central Office of Records all absences occurring at the beginning of each quarter and immediately before and after holidays. A fee of \$2.50 is charged the student for each absence immediately before and after a holiday within a quarter, with the proviso that the total fee shall not exceed \$7.50.

Absences from class attendance for cause may be excused. Such absences are those resulting from (a) participation in recognized University activities, as those of the Glee Club, debating and athletic teams, and the Playmakers, when occurring away from Chapel Hill—such excuses are to be issued in advance by the Recorder; (b) actual illness, certified to by the attending physician within forty-eight hours from the beginning of the illness; and (c) emergencies caused by extraordinary circumstances, when excused in advance by the student's dean.

The Central Office of Records will furnish to the student upon request and for the information of his instructors a record of days he has been excused.

Any student who is absent from a quiz or an examination at the appointed time without excuse as defined above will not be permitted to make up this quiz or examination. Any department may impose a fee not exceeding one dollar (\$1.00) upon the student having excuse for such absence for the privilege of taking a special quiz or examination or a make-up laboratory exercise.

No student, unless exempted by having attained the honor roll privileges of optional attendance, shall be given credit in the University for any course unless he has attended at least 75 per cent of the class meetings of the course during the quarter.

Departments may require students who have been absent, whether the absences are excused or not, to make up work covered during the periods of absence.

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

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

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 five days of any quarter.

SPECIAL EXAMINATIONS

Special examinations for the removal of conditions and for advanced standing will be given in 1952 as shown below:

Friday, September 19

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

Saturday, September 20

8:30 A.M.	11:00 A.M.
Botany	Chemistry
Latin	Business Administration
Journalism	Philosophy
2:00 P.M.	Dramatic Art
Music	4:30 P.M.
History	Any examinations made necessary by conflicts.
Mathematics	
Political Science	

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.

Examinations to remove the grade of **Cond.** at other times than those specified in the preceding paragraph may be arranged between the instructor and the dean of the school involved.

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 quarter 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 EXAMINATIONS

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 Chairman 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 times 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 quarter 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 student 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 quarter, 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

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 quarter, and his registration for the next quarter following this quarter 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 quarter 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 study 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 quarter. 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 secure the grade of C or higher on at least thirty quarter hours of work in his major.

(4) Every candidate for a degree must present at least a C average (one quality point for each course undertaken). The result obtained by dividing the total number of quality points by the total number of courses undertaken must be 1.0 or higher. The quality points are given as follows: A=3 quality points, B=2 quality points, C=1 quality point, all others = no quality points. A half course (one carrying 2½ or 3 quarter hours) yields half the quality points indicated.

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

RANK BY CLASSES

A student to be ranked as a sophomore must have passed at least thirty-six quarter hours; to be ranked as a junior, at least seventy-eight quarter hours; to be ranked as a senior, at least one hundred thirty-six quarter hours.

ELIGIBILITY FOR CONTINUED RESIDENCE

An undergraduate student, in order to be eligible to continue in the University, must qualify according to the following requirements: A freshman must pass at least one full course each quarter and six full courses during his first three quarters. If he is in residence only two quarters, he must pass four full courses, and in the following academic year he must pass seven full courses. After his third quarter a student must pass at least one full course each quarter and a total of seven full courses during the fourth, fifth, and sixth quarters. If he is in residence only two of these three quarters of the normal sophomore year, he must pass a total of five full courses. After the sophomore year, or first six quarters, the student to remain eligible must pass at least one full course each quarter, four full courses in any two consecutive quarters, and seven full courses in any three consecutive quarters. Ineligible persons are not to be considered members of the University. In case a student has been handicapped by circumstances beyond his control, he may appeal for readmission to the Com-

mittee of Deans by means of a written petition stating his case and sent to his dean. Deficiencies may be made up by correspondence work or in the summer quarter. 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.

If a total load of two and one-half or more courses is taken during one summer quarter by a student in or after his sophomore year, the summer quarter is counted as a regular term, subject to the rules of eligibility stated here.

No student who fails to qualify under these regulations may be readmitted to any division of the University except by vote of the Committee of Deans. 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 Committee of Deans. A student not in residence at the end of the preceding quarter 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 room 302, South Building.

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

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

Fraternities

Students may join fraternities after registration at the opening of any quarter, 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 Southern 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 quarter must have passed, during his last quarter of attend-

ance, satisfactory examinations upon at least five 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 quarter 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 thirty-five quarter hours, half C grade or better, during the preceding three quarters of residence, or forty quarter hours, half C grade or better, if summer school or correspondence work is necessary in addition to three regular terms.

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

Part Three

THE COLLEGES AND THE SCHOOLS

THE GENERAL COLLEGE

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

CORYDON PERRY SPRUILL, A.B., B.Litt. (Oxon.), *Dean*

*†The Administrative Board

DUDLEY DEWITT CARROLL, *Professor of Economics and Dean Emeritus of the School of Commerce* (1952)

STURGIS ELLENO LEAVITT, Ph.D., Litt.D., *Kenan Professor of Spanish* (1952)

ARTHUR MELVILLE JORDAN, Ph.D., *Professor of Educational Psychology* (1953)

HENRY ROLAND TOTTEN, Ph.D., *Professor of Botany* (1953)

SAMUEL THOMAS EMORY, Ph.D., *Professor of Geography* (1954)

GUY BERRYMAN PHILLIPS, M.A., *Professor of Education and Dean of the School of Education* (1954)

‡WILLIAM SMITH WELLS, Ph.D., *Professor of English* (1954)

THOMAS HENRY CARROLL, D.C.S., *Professor of Business Administration and Dean of the School of Business Administration* (1955)

GEORGE FREDERICK HORNER, Ph.D., *Associate Professor of English* (1955)

STERLING AUBREY STOUDEMIRE, Ph.D., *Professor of Spanish* (1955)

CARL HAMILTON PEGG, Ph.D., *Professor of History* (1956)

The Committee of Advisers in the General College

§MICHAEL ARENDELL HILL, JR., A.M., *Associate Dean* FREDERICK CARLYLE SHEPARD, Ph.D.

§CECIL JOHNSON, Ph.D., *Associate Dean* CORNELIUS OLIVER CATHEY, Ph.D.
GERALD ALAN BARRETT,

FLOYD HARRIS EDMISTER, Ph.D. A.B., LL.B.

CLAIBORNE STRIBLING JONES, Ph.D. WILLIAM POTEAT, Ph.D.

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

† Resigned winter quarter, 1952.

‡ Representatives of the Advisers on the Administrative Board.

General Statement

During his freshman and sophomore years in the University at Chapel Hill every student is a member of the General College unless he enters the School of Pharmacy. The studies in the General College are intended: (1) to offer experience in a sufficient variety of basic and liberal subjects to constitute 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 administer the curricula of the junior and senior years. The College of Arts and Sciences offers curricula in (1) the usual liberal arts subjects, (2) mathematics, chemistry, geology, physics, medicine, and bacteriology (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, (5) public health, (6) public health nursing, and (7) 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 government 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.

Naval R. O. T. C.

All of the courses offered by the Department of Naval Science count toward graduation. The academic courses offered by the department are credited as follows in the curricula in effect in 1951-1952:

- (1) In programs of study leading to the degrees of Bachelor of Arts, Bachelor of Arts in Journalism, and Bachelor of Arts in Education, naval science may be substituted for freshman social science and for two courses of required natural science. The other naval science courses may count as non-divisional subjects in the junior and senior years.
- (2) For the degree of Bachelor of Science in Business Administration, the naval science courses of the freshman and sophomore years may be substituted for two required courses in natural science and for freshman social science. In the junior and senior years, naval science courses may be substituted for four courses beyond the core requirements in Business Administration. R. O. T. C. students in the School of Business Administration must meet the requirements of one of the major curricula prescribed by the School.
- (3) In the other curricula leading to the degree of Bachelor of Science, naval science courses may be substituted for freshman social science and for electives. In addition, the Dean and the Admin-

istrative Board are authorized to substitute these courses for required subjects after consideration of the circumstances of each case.

- (4) All naval science students are required to take freshman and sophomore English, Mathematics 7, 8, and Physics 24-25. It is recommended that they take Mathematics 31, 32, 33.

Air Force R. O. T. C.

The courses offered by the Department of Air Science and Tactics are included as part of the courses required for the several bachelors' degrees in the curricula in effect in 1951-1952.

Air Force R. O. T. C. students in the School of Business Administration may substitute the basic Air Force program of the freshman and sophomore years for two required natural science courses. The advanced R. O. T. C. courses of the junior and senior years may be substituted for five courses beyond the Business Administration core requirements. All R. O. T. C. students in the School of Business Administration must meet the requirements of one of the major curricula prescribed by the School.

In the College of Arts and Sciences, the School of Journalism, and in the School of Education, the freshman and sophomore R. O. T. C. courses are substituted for two required courses. This substitution may be for Social Science 1-2, for two courses of required laboratory science, or for one course of social science and one course of laboratory science. In the junior and senior years the R. O. T. C. work counts as five courses. These five courses may be either non-divisional electives or allied courses at the discretion of the dean.

Students who participate in the Air Force R. O. T. C. program enter it with the understanding that they must continue throughout the first two years at least. At the end of two years they may elect to continue in the program or to withdraw from it. Those who elect to 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 standing 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 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 with the grades that he makes on the advanced work; 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.

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 faculty adviser.

Before admission of the student the University obtains from him and his school principal information concerning the applicant's 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 on courses, record of activities, etc. This record is in the hands of the General College adviser from the time the applicant is accepted until he completes the sophomore year. Then it is available to the departmental adviser in the major field 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.

Programs of Study in Effect in 1951-1952

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:	$\left\{ \begin{array}{l} \text{English 1-2} \\ \text{Social Science 1-2} \\ \text{Hygiene 11} \\ \text{Physical Education 1, 2, 3} \end{array} \right.$	Choose two courses:	$\left\{ \begin{array}{l} \text{Astronomy 31, 32} \\ \text{Chemistry 1-2-3} \\ \text{or 1-2-31} \\ \text{Geology 1, Geography 38} \\ \text{Geology 41, 42} \\ \text{Physics 20, 24, 25} \\ \text{Botany 1, Zoology 1} \end{array} \right.$
Choose one:	$\left\{ \begin{array}{l} \text{Mathematics 7-8 or} \\ \text{R-7X-8} \\ \text{*Greek 3-4 (or 1-2)} \\ \text{*Latin 3-4 (or 1-2)} \end{array} \right.$	Choose two courses:	$\left\{ \begin{array}{l} \text{†French 3-4} \\ \text{†German 3-4} \\ \text{†Greek 3-4} \\ \text{†Latin 3-4} \\ \text{†Spanish 3-4} \end{array} \right.$

SOPHOMORE YEAR

Humanities: Four courses to be selected by choosing A or B or C below:

A. English and fine arts, two courses:

English 3, required.

One of the following: English 4 or 5 or 6; Art 41 or 42 or 43; Music 41; Religion 28.

Classical language and literature, two courses, continuing the language chosen in the freshman year.

B. English and fine arts, two courses as indicated in A, above.

French or German or Spanish, two courses.

C. Classical language or literature in the original or in translation, two courses from:

Greek 1-2; 3-4; 21-22; 61.

Latin 1-2; 3-4; 21-22; 62.

French or German or Spanish, two courses.

Social Sciences: Two courses. Choice may be made from the following:

Anthropology 41

Economics 31-32

Education 41 and an additional course to be approved by the School of Education.

History 21, 22, 41, 42, 44, 45

Philosophy 21, 22, 41, 42

Political Science 41, 42

Sociology 51, 52

* 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.

† Students may meet the 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.

Natural Science and Mathematics as follows:

Two courses in natural science, or one course in natural science and one course in mathematics. These with the 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 following courses:

- Astronomy 31, 32
- Bacteriology 51
- Botany 41, 42, 43
- Chemistry 1-2-3 or 1-2-31; 41, 42
- Geology 1, Geography 38
- Geology 41, 42
- Mathematics 31, 32, 33, 34, 35, 36
- Physics 20, 24-25, 34, 35
- Psychology 24, 25
- Zoology 41, 42

Physical Education 4, 5, 6

Bachelor of Arts in Education (Secondary)

FRESHMAN YEAR

Required: { English 1-2
Social Science 1-2
Hygiene 11
Physical Education 1, 2, 3

Choose one sequence: { Mathematics 7-8 or R-7X-8
*Greek 3-4 (or 1-2)
*Latin 3-4 (or 1-2)

Choose one sequence: { Chemistry 1-2-3 or 1-2-31
Physics 24-25

Choose one sequence: { †French 3-4
‡German 3-4
‡Greek 3-4
‡Latin 3-4
‡Spanish 3-4

OR

Any two courses of these: { †Botany 1
Geography 38
Geology 1, 41, 42
Physics 20
‡Zoology 1

SOPHOMORE YEAR

Required: { English 3
Foreign language 21-22 (or 3-4 of language begun in freshman year)
Psychology 24 or 25 or equivalent
Physical Education 4, 5, 6

Choose one: { English 4 or 5 or 6
Art 41 or 42 or 43
Music 41
Religion 28

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

- Choose: Economics 31-32
- OR
- Any two courses of these:*
- Anthropology 41
 - History 21, 22, 41, 42, 44, 45, 48, 49
 - Philosophy 21, 22, 41, 42
 - Political Science 41, 42
 - Sociology 51
- Choose two courses:†
- Astronomy 31, 32
 - Botany 41, 42
 - Chemistry 31 or 41 or 42
 - Geography 38
 - Geology 1, 41, 42
 - Physics 20
 - Zoology 41, 42
 - Mathematics 31, 34

Bachelor of Arts in Education (Elementary)

FRESHMAN YEAR

- Required:
- English 1-2
 - Social Science 1-2
 - Hygiene 11
 - Physical Education 1, 2, 3
- Choose one sequence:
- Mathematics 7-8 or R-7X-8
 - ‡Greek 3-4 (or 1-2)
 - ‡Latin 3-4 (or 1-2)

Choose: Chemistry 1-2-3 or 1-2-31

- OR
- Any two of these:
- Botany 1
 - Geology 1
 - Zoology 1
- Choose one sequence:
- §French 3-4
 - §German 3-4
 - §Greek 3-4
 - §Latin 3-4
 - §Spanish 3-4

SOPHOMORE YEAR

- Required:
- English 3
 - Foreign language 21-22 (or 3-4 of language begun in freshman year)
 - Geography 38
 - History 21-22
 - Music 41
 - Psychology 24 or 25 or equivalent
 - Physical Education 4, 5, 6
- Choose one:
- Astronomy 31
 - Physics 20

* It is recommended that students choose sequence courses from this area, such as History 21-22 or Anthropology 41 and Sociology 51. Students who desire to teach in the field of social science in high school should choose History 21-22 or History 71-72. If their schedules will permit they should also choose Political Science 41.

† Students who choose the Botany-Zoology 1 sequence in the freshman year must choose one of the physical sciences (astronomy, chemistry, physics, geology, geography, mathematics) from this group.

‡ 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.

§ 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.

Bachelor of Science in Science Teaching (Secondary)

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

SOPHOMORE YEAR

Required: { English 3
 Foreign language 21-22 (or 3-4
 of foreign language begun in freshman year)
 Psychology 24 or 25 or equivalent
 Physical Education 4, 5, 6

Choose one:	{ English 4 or 5 or 6 Art 41 or 42 or 43 Music 41 Religion 28	Choose:	Economics 31-32
			or
	Any two courses of these:*	Choose:	Anthropology 41
			History 21, 22, 41, 42, 44, 45, 48, 49
			Political Science 41, 42 Philosophy 21, 22, 41, 42 Sociology 51

Choose one sequence:	{ Astronomy 31-32 Botany 41 and Zoology 41 Botany 41-42 Zoology 41-42 Chemistry 1-2-3 or 1-2-31 or 31 and 41 or 31 and 42 Geology 1 or 41 and Geography 38 Geology 41-42 Physics 24-25 or 34-35	

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 History 21, 22 or two courses in political science in the sophomore year.

Bachelor of Science in Business Administration

FRESHMAN YEAR

Required:	{ Botany 1 or Zoology 1, Geography 38 English 1-2 Social Science 1-2 Mathematics 7-10 or R-7X-10 Hygiene 11 Physical Education 1, 2, 3	Choose one:	French 3-4
			German 3-4
			Spanish 3-4

* It is recommended that students choose sequence courses from this area, such as History 21-22 or Anthropology 41 and Sociology 51.

SOPHOMORE YEAR*

Required:	{	English 3 and 4 or 5 or 6 or	Choose	two	courses:	{	Astronomy 31, 32
		fine arts or Religion 28					Botany 41, 42, 43
		Economics 31-32					Chemistry 1-2-3
		Business Administration 71					or 1-2-31
		Political Science 41					Geology 1, 41, 42
Physical Education 4, 5, 6		Physics 20, 24-25					
							Zoology 41, 42
							Mathematics 31, 32

Bachelor of Science in Chemistry

FRESHMAN YEAR

Chemistry 1-2-31 or 1-2-3	Mathematics 7-8 or R-7X-8
English 1-2	Hygiene 11
†German 3-4	Physical Education 1, 2, 3

SOPHOMORE YEAR

English 3 and 4 or 5 or 6 or	Mathematics 31, 32, 33
fine arts or Religion 28	Physics 24-25 or 34-35
†German 21, 22	Physical Education 4, 5, 6
Chemistry 31, if not taken previously,	
51, 42, 41	

Bachelor of Science in Geology

FRESHMAN YEAR

Required:	{	Geology 41-42	Choose	one:	{	†French 3-4
		English 1-2				†German 3-4
		Mathematics 7-8 or R-7X-8				†Spanish 3-4
		Social Science 1-2				
		Hygiene 11				
		Physical Education 1, 2, 3				

SOPHOMORE YEAR

Required:	{	English 2 and 4 or 5 or 6 or	Choose	one:	{	†French 21-22
		fine arts or Religion 28				†German 21, 22
		Chemistry 1-2-3				†Spanish 21-22
		Geography 38				
		Physical Education 4, 5, 6				

Bachelor of Science in Mathematics

FRESHMAN YEAR

Mathematics 7, 8, 31	†French 3-4 or †German 3-4
Social Science 1, 2	Hygiene 11
English 1, 2	Physical Education 1, 2, 3

* Prospective business administration students are advised to take Business Administration 72 (as well as 71) during the sophomore year. In order to do this, they will postpone to a later year either (a) the second sophomore course in English or the equivalent or (b) the fourth course in natural science or (c) Political Science 41.

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

‡ Students may complete the 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.

SOPHOMORE YEAR

Mathematics 34, 35, 36; or 32, 33, 171
 English 3 and 4 or 5 or 6, or
 elective in fine arts, or Religion 28,
 or two courses in classical language
 or literature
 French or German, two courses,
 continuing the language begun in

the first year
 Physics 24-25; or 34-35; or Chem-
 istry 1-2, 3, (or 1-2, 31), if
 the two physics courses are elected
 in the junior or senior year
 Physical Education 4, 5, 6

Bachelor of Science in Physics

FRESHMAN YEAR

Required: { English 1-2
 Mathematics 7-8 or R-7X-8
 Social Science 1-2
 Hygiene 11
 Physical Education 1, 2, 3

Choose { *German 3-4
 or
 one: { *French 3-4

SOPHOMORE YEAR

Physics 34-35 (or 24-25), 52 or 54
 Humanities: Four courses to be selected as
 shown under Bachelor of Arts, above,
 except that the foreign language must be
 German or French

Mathematics 31, 32, 33
 Physical Education 4, 5, 6

Bachelor of Science in Medicine

FRESHMAN YEAR

Required: { English 1, 2
 Chemistry 1-2-3 or 1-2-31
 Mathematics 7-8 or R-7X-8
 Social Science 1-2
 Hygiene 11
 Physical Education 1, 2, 3

Choose { *French 3-4
 one: { *German 3-4
 *Spanish 3-4

SOPHOMORE YEAR

English 3 and 4 or 5 or 6 or fine
 arts or Religion 28
 *French 21-22
 or
 *German 21, 22
 or
 *Spanish 21-22

Elective, 1 course (2 courses if Chemistry
 31 is taken in the first year)
 Chemistry 31 (if not taken in the first
 year) and Chemistry 42
 Botany 41 and Zoology 41, 42
 or
 Botany 41 and Physics 24-25
 Physical Education 4, 5, 6

NOTE: A third year of undergraduate work is necessary before admission to the School of Medicine. The requirements are Psychology 24, Chemistry 61 and 62, Zoology 41-42, or Physics 24-25, and three elective courses.

* Students placed in course number 1 of a new language may meet the requirement with courses 1-2, 3-4, provided that they have no entrance deficiency in foreign language.

Bachelor of Science in Medical Technology

The requirements for the first two years are the same as in the curriculum leading to the degree of Bachelor of Science in Medicine, except that the first courses in chemistry should be 1-2-31.

Bachelor of Science in Public Health

(See page 158.)

Bachelor of Science in Industrial Relations

(See page 156.)

Bachelor of Science in Public Health Nursing

(See page 159.)

Bachelor of Science in Bacteriology

FRESHMAN YEAR

Required:	{	Chemistry 1-2-3 or 1-2-31	Choose one: {	*French 3-4
		English 1-2		*German 3-4
		Mathematics 7-8 or		
		R-7X-8		Physical Education 1, 2, 3
		Social Science 1-2		
		Hygiene 11		

SOPHOMORE YEAR

Humanities: Four courses to be selected by choosing A, or B, or C below:

A. English and fine arts, two courses:

English 3, required.

One of the following: English 4 or 5 or 6; Art 41 or 42 or 43; Music 41; Religion 28.

Classical language and literature, two courses, continuing the language chosen in the freshman year.

B. English and fine arts, two courses as indicated in A, above.

French or German or Spanish, two courses, continuing the language chosen in the freshman year.

C. Classical language or literature in the original or in translation, two courses from:

Greek 1-2; 3-4; 21-22; 61.

Latin 1-2; 3-4; 21-22; 62.

French or German or Spanish, two courses, continuing the language chosen in the freshman year.

Required:

Chemistry 31 (unless taken in the freshman year), 42

Botany 41

Zoology 41, 42

Bacteriology 51

Physical Education 4, 5, 6

* Students placed in course number 1 of a new language may meet the requirement with courses 1-2, 3-4, provided that they have no entrance deficiency in foreign language.

New Curricula in the General College, 1952-1953

The Faculty Council has approved changes in the freshman and sophomore requirements which are summarized below. Students entering the University in September, 1952, and after will choose their studies in accordance with the new curricula. Students who were in residence during 1951-1952 or previously may either continue under the old requirements or elect one of the new curricula.

	Requirements in Effect, 1951-1952 ⁽¹⁾	New Requirements 1952-1953
English Composition, Literature, and Fine Art	4 courses	3 courses ⁽²⁾
Social Sciences	4 courses	3 courses
Natural Sciences and Sophomore Mathematics	4 courses	3 courses ⁽³⁾
Foreign Language	4 courses ⁽⁴⁾	3 courses ⁽⁵⁾
Mathematics or Classics	2 courses	2 courses
Hygiene	1/2 course	1/2 course
Elective ⁽⁶⁾	None	4 courses ⁽⁶⁾
Total	18 1/2 courses ⁽¹⁾	18 1/2 courses ⁽⁷⁾

- (1) During 1951-1952 and immediately previous years this distribution of courses among the several fields and the total of 18 1/2 courses have been required for the degrees of Bachelor of Arts, B.S. in Business Administration, Bachelor of Arts in Journalism, and Bachelor of Arts in Education (Secondary). In the other curricula in education and in most of the special curricula in the College of Arts and Sciences there have been variations from either the distribution which is shown, or the total, or both.
- (2) English composition and literature.
- (3) At least one course in physical science and one course in biological science. A sophomore course in mathematics may be taken as the third course.
- (4) The requirement in foreign language in the School of Business Administration is two courses, those numbered 3 and 4. If the student does not continue the foreign language previously studied by taking our course numbered 3, the beginning courses numbered 1 and 2 do not count as part of the minimum courses required for graduation.
- (5) Normally the requirement will be met by taking courses 3-4, and 21, but the student who begins a new language may meet the requirement with courses 1-2, 3-4. For the B.S. in Business Administration, the student may take either the foreign language course 21 or an approved elective in the Humanities. Courses 1 and 2 may not count as part of the minimum for graduation in the School of Business Administration.
- (6) The Faculty Council authorized the Administrative Board of the General College to consult with departments and prepare a list of approved electives. It is expected that these courses will include most of those previously available to freshmen and sophomores as options in required fields and, in addition, such new courses as may be developed.

- (7) In addition, the requirement of six quarters of physical education will be continued.

NOTE: The new requirements are intended to apply to all students in the General College, but with the understanding that the several divisions of the University administering professional curricula leading to bachelors' degrees may prescribe (a) part or all of the electives and (b) more than $18\frac{1}{2}$ courses to be taken in the General College. Further, the Administrative Board of the General College is authorized to substitute freshman and sophomore requirements in effect during 1951-1952 (Catalogue of May 20, 1951) for those of the new curricula to the extent that this is found to be desirable in the several curricula leading to the degree of Bachelor of Science.

THE COLLEGE OF ARTS AND SCIENCES

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

CLIFFORD PIERSON LYONS, Ph.D., *Dean*

GERALDINE ALMA FOSTER, A.M., *Assistant Dean*

ALBERT IRVING SUSKIN, Ph.D., *Assistant to the Dean*

*†The Administrative Board

ALFRED GARVIN ENGSTROM, Ph.D., *Professor of French* (1952)

WESLEY CRITZ GEORGE, Ph.D., *Professor of Histology and Embryology* (1952)

EDWIN CARLYLE MARKHAM, Ph.D., *Smith Professor of Chemistry* (1952)

CORYDON PERRY SPRUILL, JR., A.B., B.Litt. (Oxon.), *Professor of Economics* (1952)

HOWARD RUSSELL HUSE, Ph.D., *Professor of Romance Languages* (1953)

RICHARD JENTE, Ph.D., *Professor of Germanic Languages* (1953)

LEE MARSHALL BROOKS, Ph.D., *Professor of Sociology* (1954)

CLAIBORNE STRIBLING JONES, Ph.D., *Associate Professor of Zoology* (1954)

WILLIAM HOWARD PLEMMONS, Ph.D., *Professor of Education* (1954)

SAMUEL SELDEN, A.B., *Professor of Dramatic Art* (1955)

WILLIAM M. WHYBURN, Ph.D., *Kenan Professor of Mathematics* (1955)

FRANK WILLIAM HANFT, A.B., LL.M., S.J.D., *Professor of Law* (1956)

General Statement

Students in the College of Arts and Sciences have completed the first two years of college work in this or some other institution of comparable standards. Therefore only the junior and senior years are offered. The work of the College of Arts and Sciences is distributed among three divisions known as the Division of the Humanities, the Division of the Natural Sciences, and the Division of the Social Sciences. At the beginning of the junior year a student expecting to enter the College of Arts and Sciences must choose one of the divisions for his major work. He will then be under the direction of the head of the division and an adviser from the department of his

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

† Dates indicate expiration of terms.

major subject. Those who plan to teach in secondary schools should seek admission to the School of Education. The only students not so placed in divisions will be candidates for the A.B.-LL.B., the S.B. in Medicine, and the S.B. in Dentistry degrees and special students not candidates for any degree. Such students will be directly under the guidance of the Dean of the College.

It is the general understanding that during the junior and senior years a student in a division will take about one-third of his work in one department, one-third in allied departments in the division of his major, and one-third as free electives outside the division. Because of special circumstances, there are variations among the divisions from the numerical aspects of this rule. *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.* The several requirements of the divisions are explained below in the description of the divisions. To be eligible for graduation, a student must secure the grade of C or higher on 30 quarter hours of work in his major. This rule applies to students who began their major after September, 1942. Grades lower than C will not be acceptable in the major for students transferring from other colleges. For a transfer student, the number of hours taken here in the major must carry C's or better in the same ratio as the number 30 is to the total required in the major. It is to be understood that for the student enrolled in the University before September, 1947, one-half of the hours of his academic work must be of grade C or better; for the student entering the University in or after September, 1947, his over-all average grade must be at least C. For method of computing C average see page 125, section on Eligibility for Graduation.

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.

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 (see page 157), 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 he should take courses in the premedical sciences in the first two years in the General College, namely, Chemistry 1-2-3 or 1-2-31; Physics 24-25 or Botany 41 and Zoology 41. In the College of Arts and Sciences he could then follow whatever his 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.

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.

Admission and General Regulations

For regulations governing admission to the College of Arts and Sciences, see page 81.

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.

A student transferring from another accredited college to the College of Arts and Sciences of this University must meet the requirements of the first two years here, unless he presents a superior record from the other college.

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.

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

Curriculum Leading to the Bachelor of Arts

To secure the degree of Bachelor of Arts the student must complete fully the requirements set up in the General College for the first two years and follow this by meeting in full the requirements in one of the divisions for the junior and senior years. The requirements for a major in any department will be found with the descriptions of courses offered by that department.

A minimum of thirty-six full courses excluding the requirement in hygiene and physical education is required for the degree; the least number of quarter hours for graduation is 186, including six hours in hygiene and physical education. A student may accumulate the minimum number of courses or hours for graduation but still not have satisfied those requirements in his division that must be met regardless of the total number of courses taken.

A new curriculum for the freshman and sophomore years is in the process of being put into effect. Refer to page 145 under the General College for a more detailed statement.

The Divisions

The faculty of the College is divided into three divisions, the Division of the Humanities, the Division of the Social Sciences, and the Division of the Natural Sciences. The work of some departments will be found in more than one division, and, for convenience, that of others may from time to time be shifted from one to another or be placed in more than one; courses in departments listed in more than one division, however, cannot be counted both as allied to the major

and as extra-divisional work. *A course that is listed in the major department and another department must count toward the major.*

By the end of his freshman year, if possible, the student should decide upon his major subject. In his sophomore year he should take whatever work he can directly prerequisite to his major. In his junior year he enters one of the divisions, and his work is directed by the requirements of the division and by any special needs he may have in conference with the head of the division, or by a person designated for this purpose. Students taking the A.B.-LL.B. course or the S.B. in Medicine or the S.B. in Dentistry curriculum do not fall in any division but are under the direct charge of the Dean of the College of Arts and Sciences.

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.

For the requirements of the undergraduate major in any department, see the Description of Courses for the department concerned.

The Division of the Humanities

GLEN HAYDON, Ph.D., *Chairman*

LYMAN COTTEN, 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	Radio
Literature	Religion
Germanic Languages	Romance Languages

GENERAL STATEMENT

After a student has selected his department of major interest, that department must require of him a minimum of six whole quarter courses, or the equivalent in whole and half courses, and may require a maximum of eight such courses. In the allied departments of the division the student must take at least four such quarter 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. It is required that the student take from departments in the other divisions at least four and not more than seven whole quarter courses, in all a sufficient number of courses to make a total of at least eighteen whole quarter courses over and above the full requirements of the General College. Special programs may be submitted by students.

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 third quarter of his junior 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 first 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 in 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 as many as three reading courses. Such courses, with the exemption from class attendance and the requirements of regular courses, should usually be taken during the first and second quarters of his senior year, though the departmental committee, on the recommendation of the special adviser, will have power to modify such a procedure. Only one of the three reading courses may be taken during the junior year, not more than two of them may be taken during a single quarter, and all three 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.

The Division of the Social Sciences

HARRY DEMERLE WOLF, Ph.D., *Chairman*

LEE MARSHALL BROOKS, Ph.D., *Secretary*

This division includes the following departments of instruction:

Economics	Philosophy	Psychology
Education	Physical Education	Sociology
History	Political Science	

Psychology 24 and 25 may be counted only as natural science.

Business Administration 71 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. The courses in Materials and Methods and Practice Teaching given in the School of Education carry no credit in the College of Arts and Sciences.

GENERAL STATEMENT

This division requires the student to complete a minimum of six whole quarter 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. From five to seven courses in allied departments within the Division of the Social Sciences are required, and from departments in the other divisions at least five and not more than seven whole quarter courses, in all a sufficient number of courses to make a total of at least eighteen whole 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, above, with the important difference that in the Division of the Social Sciences the candidate for honors may receive credit for only two reading courses.

The Division of the Natural Sciences

ARTHUR ROE, Ph.D., *Chairman*

MAURICE WHITTINGHILL, Ph.D., *Secretary*

The following departments of instruction are included in the Division:

Astronomy	Geology	Physics
Botany	Mathematics	Psychology
Chemistry	Philosophy	Zoology

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 eighteen 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.

Academic Curriculum for A.B.-LL.B.

Students who intend to matriculate in the School of Law 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.

*English 1, 2, 3, 4

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, 5, 6

†Foreign language, four courses

History 71 and 72 or 44 and 45

Economics 31-32

Political Science 41, and one other course in political science

Psychology 24, 25

‡Two courses in natural science

English 44, and one other English course, preferably 52

Four elective courses

Curricula for the Degree of 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 (or in the work of the Medical School or the Dental School), 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, which are designed to furnish the fundamental instruction for some of the technical professions, are eleven in number.

Bachelor of Science in Bacteriology

Bachelor of Science in Chemistry

Bachelor of Science in Dentistry

Bachelor of Science in Geology

* English 5 or 6, or a music or art elective, may be substituted for English 4.

† Six courses of a foreign language are required if the student has a language deficiency upon his entrance in the University.

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

Bachelor of Science in Industrial Relations
 Bachelor of Science in Mathematics
 Bachelor of Science in Medical Technology
 Bachelor of Science in Medicine
 Bachelor of Science in Physics
 Bachelor of Science in Public Health
 Bachelor of Science in Public Health Nursing

Requirements for the degrees of Bachelor of Science in Bacteriology, Chemistry, Geology, Mathematics, and Physics are given in the headnotes to the Description of Courses of the departments concerned; and for the degrees in Industrial Relations, Dentistry, Medicine, Medical Technology, Public Health, and Public Health Nursing, immediately below.

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 six elective courses. (In addition to this curriculum detailed below, another program with special emphasis upon economics and business administration is offered by the School of Business Administration.)

FIRST AND SECOND YEARS

English 1, 2; 3, 4 (or 3 and equivalent of 4 in English or fine arts)
 Mathematics 7-8
 Natural science: Psychology 24, 25 and two other courses of which at least one must be physical science or mathematics
 Modern foreign language: four courses
 Social science: Social Science 1-2; Economics 31-32; Political Science 41; Sociology 51 (of these, one or two may be postponed to the junior or senior year.)
 Hygiene 11
 Physical Education 1, 2, 3, 4, 5, 6

THIRD AND FOURTH YEARS

Business Administration 51, 71, 155
 Economics 191, and 192 or 193
 Psychology 133
 History 168 or Economics 135
 One course in statistics (economics, psychology, or sociology)
 Five courses in one of the following: education, history, political science, psychology, sociology
 Six 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)

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 must have been done in this institution.

FIRST YEAR

Chemistry 1-2-3 or 1-2-31	French or German, 2 five-hour courses
English 1-2	Hygiene 11
Mathematics 7-8 or R-7X-8	Physical Education 1, 2, 3
Social Science 1-2	

SECOND YEAR

Chemistry 31 (if not taken in first year), 42	Botany 41, Zoology 41, 42; or Botany 41, Physics 24-25
*English 3, 4	Elective, 1 course; or 2 courses if Chemistry 31 was taken during first year
French or German, 2 five-hour courses following those of first year	

THIRD YEAR

Psychology 24	Physics 24-25
Chemistry 61, 62	Elective, 3 courses
Zoology 41, 42; or	

* English 5 or 6, or an art or music elective, may be substituted for English 4.

Bachelor of Science in Medical Technology

The following courses constitute the program for the degree of Bachelor of Science in Medical Technology:

*English (4 courses)	20 hours
†French, German, or Spanish (4 courses)	20 hours
Freshman social science (2 courses)	10 hours
Hygiene and physical education	6 hours
Freshman mathematics	10 hours
Physics 24-25	12 hours
Chemistry 1-2-31; 42, 61; 146 or 41 or 62	31 (or 34) hours
Botany 41	6 hours
Zoology 41, 42, 105	18 hours
Zoology 110 or Public Health 135 (Parasitology)	5 or 3½ hours
Bacteriology 101	8 hours
Pathology 52	4 hours
Elective (not science)	20 hours
Elective (free)	18 to 20 hours

At least 30 quarter 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 American Society of Medical Technology.

Bachelor of Science in Public Health

The curriculum leading to the Bachelor of Science in Public Health has as its objective the broad training of students in the biological and physical sciences which are fundamental for public health workers. The first three years are largely devoted to basic courses in chemistry, physics, mathematics, and biology. In the fourth year the work becomes more specialized and is designed for two groups.

1. *Alternative a: Biology and Public Health.* This curriculum consists largely of biological courses and their application to public health sanitation. Some specialization in sanitary chemistry, bacteriology, parasitology, and malariology is possible. For those who wish to continue on into graduate work this curriculum serves as a foundation for work leading toward a Master of Science in Public Health.

2. *Alternative b: Physical Sciences and Public Health.* This curriculum is arranged for those who wish to specialize in industrial hygiene or public health engineering. To a background of fundamental work in surveying, strength of materials, and hydraulics are added courses including those in sanitation, sanitary chemistry, and bacteriology. This program of study is basic for those who wish to prepare for public health engineering work, for a Master of Science in Sanitary Engineering, or for a Master of Science in Public Health.

* An art or music elective may be substituted for the fourth course of English.

† Lacking adequate credits in foreign language from high school, the student must take six courses in foreign language.

FIRST YEAR

Alternative a or b: Mathematics 7, 8, 41; Chemistry 1-2-3; English 1, 2; *foreign language, 2 five-quarter-hour courses; Social Science 1-2; Physical Education 1, 2, 3; Hygiene 11.

SECOND YEAR

Alternative a: †English 3, 4; foreign language, 2 five-quarter-hour courses, following those taken in the first year; Physics 24-25; Zoology 41, 42; Botany 41; Mathematics 31, 42.

Alternative b: †English 3, 4; Physics 24-25; Mathematics 31, 32, 33; foreign language, 2 courses, following those taken in the first year, and Botany 1, Zoology 1; or, in place of the foreign language and the freshman courses in botany and zoology, Botany 41, Geology 41, and Zoology 41.

THIRD YEAR

Alternative a: Chemistry 31 and 42; Mathematics 51; Zoology 109; Economics 61; English 59; Geology 41; Zoology 112; §Elective.

Alternative b: Chemistry 31 and 42; Mathematics 51; Mathematics 121; Mathematics 123; Mathematics 124; Mathematics 42; Economics 61; English 59; §Elective, two courses.

FOURTH YEAR

Alternative a: P. H. 111 P. H. Administration; Zoology 106-107-108; P. H. 131 Bacteriology; P. H. 161 Sanitation; P. H. 163, 164 Sanitary Chemistry; P. H. 135 Parasitology; P. H. 133 Malariology; P. H. 134 Medical Entomology; §Elective.

Alternative b: P. H. 111 P. H. Administration; P. H. 161 Sanitation; P. H. 131 Bacteriology; P. H. 121 P. H. Statistics; P. H. 162 Sanitary Chemistry; P. H. 135 Parasitology; ¶Math. 125; ¶Math. 126; Math. 61; §Elective (Min. 6 hrs., max. 11 hours are to be taken in School of Public Health.)

Bachelor of Science in Public Health Nursing

Candidates for this degree must fulfill the following requirements:

1. Satisfactory completion of 90 quarter hours in an accredited college or university. The amount of credit not exceeding 90 quarter hours extended for work in other colleges will be determined by the Committee on Admissions.

(a) *Required:*

24 quarter hours in the natural sciences, selected from zoology, botany, chemistry, physics, psychology.

20 quarter hours in English.

* If the student enters the University with a foreign language deficiency, he must take two courses in language before he receives credit on language courses required for graduation.

† English 5 or 6, or an art or music elective, may be substituted for English 4.

§ It is suggested that some of the elective courses be taken from the following: English 44, Zoology 41 and 109, Political Science 41, 42, and 101, Chemistry 61, 62, 63, Physics 120, Mathematics 125, 126.

¶ Elective courses may be substituted for the courses in structures; if this substitution is made, the courses in structures must be taken in the graduate year by candidates for the Master of Science in Sanitary Engineering.

10 quarter hours in the social sciences, selected from sociology, upper division psychology, history.

(b) *Electives:*

The departmental adviser will assist the student in the selection of the remaining courses (36 quarter hours) with reference to her individual needs.

2. Graduation from an approved school of nursing, with credit to be determined by the Committee on Admissions.
3. Satisfactory completion of the curriculum in Public Health Nursing in the School of Public Health at the University of North Carolina.

THE SCHOOL OF EDUCATION

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

GUY BERRYMAN PHILLIPS, M.A., *Dean*

*†The Administrative Board

OLIVER KELLY CORNWELL, M.A., Ed.D., *Professor of Physical Education and Director of Physical Education (1952)*

WILLIAM HOWARD PLEMMONS, Ph.D., *Professor of Education (1953)*

JOSEPH CARLYLE SITTERSON, Ph.D., *Professor of History (1953)*

GORDON WILLIAMS BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science (1954)*

H. ARNOLD PERRY, Ed.D., *Professor of Education (1954)*

RICHARD ELMER JAMERSON, Ed.D., *Professor of Physical Education (1955)*

DOROTHY C. ADKINS, Ph.D., *Professor of Psychology (1955)*

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.

Certification may be secured in the fields of art, elementary education, Bible and religion, English, French, Latin, library science, mathematics, music, natural science, physical education, Spanish, and social science. With the advice of the department concerned (or division in the cases of natural science and social science) the student follows one of the programs for a major. Students are advised to select a sec-

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

† Dates indicate expiration of terms.

ond or minor program in one of the fields listed above, or in dramatic art, and especially to make such combinations of major and minor as will best prepare them for the integrated high school programs that are developing in North Carolina and other states.

Students are urged to consult the Dean of the School of Education or his representative about questions involving the preparation of teachers for the public schools.

Bachelor of Arts in Education (Secondary)

FRESHMAN YEAR

Required:	{	English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1, 2, 3	Choose one sequence:	{	Mathematics 7-8 or R-7X-8 *Greek 3-4 (or 1-2) *Latin 3-4 (or 1-2)
Choose one sequence:	{	Chemistry 1-2-3 or 1-2-31 Physics 24-25	Choose one sequence:	{	†French 3-4 †German 3-4 †Greek 3-4 †Latin 3-4 †Spanish 3-4
OR					
Any two of these:	{	†Botany 1 Geography 38 Geology 1, 41, 42 Physics 20 †Zoology 1			

SOPHOMORE YEAR

Required:	{	English 3 Foreign language 21-22 (or 3-4) of language begun in freshman year Psychology 24 or 25 or equivalent Physical Education 4, 5, 6	Choose one:	{	English 4 or 5 or 6 Art 41 or 42 or 43 Music 41 Religion 28
Choose:		Economics 31-32			
OR					
Any two of these:§	{	Anthropology 41 History 21, 22, 41, 42, 44, 45, 48, 49 Philosophy 21, 22, 41, 42 Sociology 51 Political Science 41, 42	Choose one:	{	Astronomy 31, 32 Botany 41, 42 Chemistry 31 or 41 or 42 Geography 38 Geology 1, 41, 42 Physics 20 Zoology 41, 42 Mathematics 31, 34

* 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.

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

‡ 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.

§ It is recommended that students choose sequence courses from this area; as History 21-22 or Anthropology 41 and Sociology 51. Students who desire to teach in the field of social science in high school should choose History 21-22 or History 71-72. If their schedules will permit they should also choose Political Science 41.

|| Students who choose the Botany 1—Zoology 1 sequence in the freshman year must choose one of the physical sciences (astronomy, chemistry, physics, geology, geography, mathematics) from this group.

Bachelor of Science in Science Teaching (Secondary)

FRESHMAN YEAR

(Same as for Bachelor of Arts in Education)

SOPHOMORE YEAR

- | | | | |
|--------------------|--|-------------|--|
| Required: | English 3
Foreign language 21-22 (or 3-4)
of foreign language begun in
freshman year
Psychology 24 or 25 or equivalent
Physical Education 4, 5, 6 | Choose one: | English 4 or 5 or 6
Art 41 or 42 or 43
Music 41 |
| | | | |
| Any two of these:* | Anthropology 41
History 21, 22, 41, 42, 44, 45,
48, 49
Political Science 41, 42
Philosophy 21, 22, 41, 42
Sociology 51 | Choose one: | Astronomy 31-32
Botany 41 and Zoology 41
Botany 41-42
Zoology 41-42
Chemistry 1-2-3 or 1-2-31
or 31 and 41 or 31 and 42
Geology 1 or 41 and
Geography 38
Geology 41-42
Physics 24-25 or 34-35 |
| | | | |

Bachelor of Arts in Education (Elementary)

FRESHMAN YEAR

- | | | | |
|-------------------|---|----------------------|---|
| Required: | English 1-2
Social Science 1-2
Hygiene 11
Physical Education 1, 2, 3 | Choose one sequence: | Mathematics 7-8 or R-7X-9
†Greek 3-4 (or 1-2)
†Latin 3-4 (or 1-2) |
| | | | |
| Any two of these: | Botany 1
Geology 1-41-42
Zoology 1 | Choose one sequence: | †French 3-4
†German 3-4
†Greek 3-4
†Latin 3-4
†Spanish 3-4 |
| | | | |

SOPHOMORE YEAR

- | | | | |
|-----------|---|-------------|----------------------------|
| Required: | English 3
Foreign language 21-22 (or 3-4)
of language begun in freshman
year)
Geography 38
History 21-22
Music 41
Psychology 24 or 25 or
equivalent
Physical Education 4, 5, 6 | Choose one: | Astronomy 31
Physics 20 |
| | | | |

* It is recommended that students choose sequence courses from this area; as History 21-22 or Anthropology 41 and Sociology 51.
 † 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.
 ‡ 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.

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, community activities are observed.

The following professional courses are listed in the catalogue for credit toward graduation:

41. INTRODUCTION TO THE STUDY OF EDUCATION (5). (*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.

71. CHILD GROWTH AND DEVELOPMENT (5). (*The Pupil*). (Required of all prospective teachers.) A course designed to acquaint the student with significant aspects of child growth and development as they relate to the educational process. Functional understanding of individual differences, growth, personality, and factors influencing learning is stressed.

74ab. THE ELEMENTARY SCHOOL (3 or 5). (*The School*). 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 relationship to the various community agencies concerned with the education of the child.

99. THE SECONDARY SCHOOL (5). (*The School*). 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.

61, 63, 75, 76, 77, 81, 83a, 83b, 85, 87, 89, 91. METHODS AND MATERIALS IN TEACHING IN: ELEMENTARY GRADES, HEALTH AND PHYSICAL EDUCATION, INSTRUMENTAL MUSIC, CHORAL MUSIC, ART, ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (5). (*Teaching*). Emphasis is placed upon the teacher's function in classroom learning situations and in the operation of the public school. The course is concerned with the study of problems common to all teachers, as well as those peculiar to teaching in the subject areas.

62, 64, 78, 79, 80, 82, 84a, 84b, 86, 88, 90, 92. STUDENT TEACHING IN: ELEMENTARY GRADES, HEALTH AND PHYSICAL EDUCATION, INSTRUMENTAL MUSIC, CHORAL MUSIC, ART, ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (15). (*School*, *Pupil*, *Teaching*). Student teaching is conducted on a full-time basis which enables the student to participate in all aspects of public school life. It is designed to emphasize learnings in the three areas of *The Child*, *The School*, and *Teaching*, following the plan of preceding professional courses. Student teaching is carried out under University supervision in cooperating public schools in the state.

Subject Matter Program (Secondary)**ART**

Students who choose to teach art will complete an art major reduced by one studio course and one Art History course.

Pre-major work in General College: (choose three) studio half-courses 44, 45, 46, 48, 49, 80, 81, 84, 110; (choose two) Art History 41, 42, 43.

Students who choose a second teaching field in art will take two Art History courses (including 41 or 42 or 43), and the following studio half-courses: 44, 45, 46, 49, 50, 55, and two electives.

BIBLE AND RELIGION

Students who choose a major program in religion will take:

Religion 28 (if not taken in the General College), 30, 31, 80, 81, 92, 103

Religion 45 or 195

Students who choose a minor in religion will take:

Religion 28 (if not taken in the General College), 30, 80, 81, 103

DRAMATIC ART

Students who choose a second teaching field in dramatic art will take:

Dramatic Art 63, 64

Two of the following: 155, 161, 162

Dramatic art is not a major teaching field.

ENGLISH

Students who choose a major program in English will take:

(a) *English 50 (or 115ab)

(b) *English 96 (or 170ab)

(c) *English 81 or 82

(d) English 40 or 41 or 44 (or specially designed course)

(e) One of the following: English 70 (or 103ab), 75, 83, 91, 93

(f) One of the following: English 84, 88, or 89, 94 (or 104ab), 97, 98

(g) One elective in English

* Courses required by the state of North Carolina for certification in English.

To complete their programs students preparing to teach English have three alternatives:

- (a) To take a minor in another certification field, such as social studies, modern or classical languages, mathematics, music, natural science, or art;
- (b) To take courses preparing them to assist with other professional and extra-curricular responsibilities, such as dramatics, school newspaper, audio-visual aids, guidance, or library supervision;
- (c) To take grouped courses designed to improve their proficiency as English teachers.

To assist the student in carrying out choices (b) and (c), the following programs are suggested:

- (a) *Dramatic Art*. Dramatic Art 63, 64; two of the following: 155, 161, 162.
- (b) *Library Science*. Library Science 94 and 95 as half-courses; Library Science 122, 123, 143.
- (c) *Journalism*. Journalism 53, 54, 57; two courses from the following: Journalism 56, 58, 60, 61.
- (d) *Radio*. Radio 75; three of the following: Radio 71, 72, 74, 80, 81, 83.
- (e) *Audio-Visual Aids*. Education 135, Art 50; two radio courses listed above.
- (f) *Psychology*. Four courses in psychology chosen from Psychology 30, 40, 122, 126, 133, 144.
- (g) Following are illustrative grouped courses related to an English major which might serve to prepare for extra-curricular activities and to improve classroom teaching preparation, depending upon the need, ability, or interest of the student. It is suggested that the following course groupings be considered with the approval of the student's adviser.
 Library Science 122; Journalism 53; Radio 70; Reading Techniques at the Secondary level.
 Folklore 104, 167, or 185; American History 72; Sociology 52, 62, 154, 161.
 Sociology 62 or Religion 62; Sociology 101, 102 or 181; Education 175.
 Journalism 53; Radio 72; English 53; Art 48 or 50.

Students who choose a minor teaching field in English will take the following courses or their equivalent:

- (a) English 50
- (b) English 96
- (c) English 81 or 82
- (d) One from English 83, 84, 88, 89, or by permission an elective, provided the student has had English literature in the General College.

FRENCH

Students preparing to teach French will take:

French 50, 51, 52, 71, 72, 126, 145

Those who choose French as a minor teaching field will take:

French 50 (when required), 51, 71, 72, and 145.

HEALTH AND PHYSICAL EDUCATION

Students preparing to teach health and physical education will take the following courses: Physical Education 75, 76, 77, 78, 79, 86, 87.

Men who choose a major program should take the following courses: Physical Education 65, 66, 67, 68, 69, and 70.

Women who choose a major program should take the following courses: Physical Education 54, 55, 56, 57, 58, and 59.

All those who take a minor program in physical education should take Physical Education 77, 78, 86, Education 63, and one from the following: Physical Education 65, 66, 67, 68, 69, or 70.

LATIN

Students preparing to teach Latin will take:

Latin 71

Latin 51 or 52; and four additional courses from the following:

Latin 62, 76, 101, 102, 103, 104, 105, 112.

Students who choose Latin as a second teaching field will take:

Latin 71, 51, or 52, and two additional courses.

LIBRARY SCIENCE

Students who choose a program in library science will take the following courses or their equivalent:

Library Science 94, 95, 96, 122, 123, 143

Students who choose library science as a second teaching field will take the following courses or their equivalent:

Library Science 94 and 95 (each as a three-quarter-hour course), 122, 123, 143

MATHEMATICS

Students preparing to teach mathematics will take the following courses or their equivalent:

Mathematics 31, 32, 33, 102, 103

And one additional course in mathematics to make a total of thirty quarter hours.

Students who choose mathematics as a second teaching field will take twenty quarter hours from the courses listed above.

MUSIC

Students preparing to teach music will take the regular courses in the music major.

The student specializing in instrumental music should include, in addition to the major instrument, a study of all band instruments (Music E) or all orchestra instruments (Music D).

Students who choose music as a second teaching field will take the following: Music 1, 14, 47-48 (or any two from Music 54, 55, 56), and three quarter hours instruction in voice.

NATURAL SCIENCE

Students preparing to teach science will complete ten courses in science including three of the following sequences:*

Botany 41, 42, 43

Chemistry 1-2-3, or 1-2-31

Geology 41 and Geography 38 or Geology 41, 42

Physics 24-25

Zoology 41, 42

Any science courses taken while the student is in the General College may count toward satisfying this requirement, but at least six of the courses must be passed with a grade of C or better. The courses used to satisfy these requirements plus those needed to complete a total of thirty-seven courses should be selected after consultation with the adviser in the School of Education and the department or departments of natural science concerned.

SOCIAL SCIENCE

Students who wish to teach in the social sciences must have the following courses or their equivalent: Social Science 1-2, History 71-

* Students planning to teach in North Carolina should plan to take at least two courses each in physics, chemistry, and biology and one in geography or geology.

72. In addition to these prerequisite courses, students must pursue one of the following plans:

(1) Complete a program in social science consisting of the following courses or their equivalents: Political Science 41, Sociology 51, Economics 61, either Sociology 52 or Sociology 181, two five-hour courses of junior-senior rank in history, and two five-hour elective courses in the Division of the Social Sciences; or

(2) Complete at least six courses in one of the following departments of the Division of Social Sciences 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, and Economics 61.*

Students who choose social studies as a second teaching field should complete the prerequisite courses indicated in the first paragraph of this section, and, in addition, choose either of the following plans:

(1) In preparation for certification in civics or problems of American democracy, complete at least six five-hour courses selected from among the departments of Economics, Political Science, Sociology and Anthropology, and Geography, including the following courses: Economics 51, Political Science 41, and Sociology 51.

(2) In preparation for certification in a single social studies subject, complete at least four five-hour courses in one of the following departments: Economics, Political Science, Sociology and Anthropology.

SPANISH

Students preparing to teach Spanish will take:

Spanish 50, 51, 52, 71, 72, 73, 145.

Those who choose Spanish as a minor teaching field will take:

Spanish 50, 51, 71, 72, 145.

Subject Matter Program (Elementary)

Programs 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.

* Students who choose a program in history will find it necessary to complete this plan and an additional five-hour course in any other department in the Division of the Social Sciences in order to qualify for the Social Studies certificate.

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 can usually be 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 quarter to meet graduation requirements and to complete courses needed for teacher certification in a particular state. The summer sessions 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 six quarters 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 quarters. 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 following subject-matter credits. Some of this should be completed during the first and second years of the college program.

SUBJECT	QUARTER HOURS
1. English	13
<i>Required:</i>	
a. Composition	9 q.h.
b. Children's Literature	3 q.h.
<i>Recommended:</i>	
a. Advanced Grammar }	6 q.h.
b. Speech }	

2. American History and Government	12
<i>Required:</i>	
a. American History	9 q.h.
b. Government	3 q.h.
3. Geography	9
<i>Required:</i>	
a. Principles	4½ q.h.
b. Regional	4½ q.h.
4. Fine and Industrial Arts	18
<i>Required:</i>	
a. Art	9 q.h.
b. Music	9 q.h.
5. Health and Physical Education	15
<i>Required:</i>	
a. Principles, Practices, and Procedures in Physical Education for Elementary Schools	3 q.h.
b. Principles, Practices, and Procedures in Health for Elementary Schools	3 q.h.
<i>Recommended:</i>	
a. Service courses	6 q.h.
b. Physical Education Elective	3 q.h.

THE SCHOOL OF JOURNALISM

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

OSCAR JACKSON COFFIN, A.B., *Dean*

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ALBERT IRVING SUSKIN, Ph.D., *Associate Professor of Latin*

EARL WYNN, M.S., *Professor of Radio and Communication and Director of the Communication Center*

General Statement

The executive committee of the Board of Trustees, in January of 1950, authorized the establishment of a School of Journalism, not so much as a replacement, but as a continuation of the Department of Journalism which was created in 1924. There is no change in the requirement of two years of General College work for admission; there is no addition of courses at the graduate level. Special students who are not candidates for a degree and undergraduates electing journalism courses will be admitted after consultation with members of the faculty. A minimum of six journalism courses is required for the Bachelor of Arts degree in Journalism, but this may be extended to a maximum of eight.

In 1949 there was established the Journalism Foundation of the University of North Carolina for the purpose, as stated in its charter: ". . . to sponsor, promote, encourage, support and assist, financially and otherwise, the advancement of education in the field of journalism at or through the School of Journalism (or the Department of Journalism) of the University of North Carolina, Chapel Hill, North Carolina,

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

by encouraging, promoting and assisting in making provision for the greatest possible educational opportunities and advantages for students of journalism; by promoting and making possible scholarships, fellowships, loans, and other means of financial assistance for worthy, qualified students of journalism; by promoting, creating and assisting in the creation of chairs of journalism for the teaching of any or all phases of journalism and in paying in full or in supplementing the salary or salaries of persons engaging in any phase of education in the field of journalism; by donating or otherwise providing all or any part of the buildings, equipment, materials, or facilities necessary, desirable, incidental to, or useful in such education in the field of journalism; by cooperating with individuals, corporations, associations and other institutions and organizations in promoting, sponsoring, supporting and assisting in the advancement and attainment of the objects and purposes herein set forth or any of them; by publishing and distributing literature and otherwise disseminating information in the furtherance of any or all of the purposes herein set forth."

The School of Journalism suggests that, for their sophomore social science, students take American history or political science. The only economics course required for the School of Journalism is Economics 61, which may be taken in the junior or senior years.

Journalism students interested in extra-curricular experience may work on the *Daily Tar Heel*, student newspaper, with encouragement from the School of Journalism in the form of credit hours toward a degree (see Description of Courses). Individual members of the school act in an unofficial capacity as advisers, but do not exercise control or censorship over student-managed publications.

THE SCHOOL OF BUSINESS ADMINISTRATION

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

THOMAS HENRY CARROLL, B.S., M.B.A., D.C.S., *Dean; Professor of Business Administration*

DUDLEY DEWITT CARROLL, M.A., *Dean Emeritus of the School of Commerce; Professor of Economics*

JOHN TETTEMER O'NEIL, B.S., M.B.A., Ph.D., *Assistant Dean; Associate Professor of Finance*

JOHN BROOKS WOOSLEY, Ph.D., *Chairman, Graduate Studies and Research; Kenan Professor of Finance*

REX SHELTON WINSLOW, Ph.D., *Director of Bureau of Business Services and Research; Professor of Economics*

*The Administrative Board

GORDON WILLIAMS BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science*

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REX SHELTON WINSLOW, Ph.D., *Professor of Economics and Director of the Bureau of Business Services and Research*

HARRY DEMERLE WOLF, Ph.D., *Professor of Economics*

JOHN BROOKS WOOSLEY, Ph.D., *Kenan Professor of Finance*

General Statement

Though 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-

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board. The Assistant Dean of the School serves as Secretary of the Board.

organized business curriculum. In that year the legislature, 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 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 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 science, 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, 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, located in Bingham Hall, has been provided with a well-qualified instructional staff. New quarters, consisting of a quadrangle of three buildings, are now under construction.

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 the social and the cultural. 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.

Within the short space of time at his disposal, it is impossible for the student to study in detail the entire field of business. It is, therefore, the policy of the School to supplement the so-called "core" subjects, which are required of every student, with a more intensive study of that portion of the field which is of especial interest to him. To this end, there have been prepared for the student certain groupings of closely related courses. These majors include: (1) production, (2) marketing, (3) finance, (4) personnel management, (5) insurance, (6) accounting, and (7) statistics. Other feasible majors are described in the catalogue of the School of Business Administration.

Graduate Study

Professional education in business administration for college graduates with undergraduate majors other than business administration is offered as well as graduate work for students who have been awarded undergraduate degrees in business. A student's initiative and analytical and creative powers are developed and tested to a degree impossible of attainment in the undergraduate years. Courses have been developed exclusively for graduate students. Some which have been 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. Programs leading to the degrees of Master of Arts and Doctor of Philosophy with a major in economics are offered by the Department of 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.

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.

Air Force and Naval R. O. T. C.

Regularly organized units of the Air Force and Naval R. O. T. C. are maintained at the University. Students who participate in these programs enter with the understanding that they should continue throughout four academic years. For more complete information, see the catalogue of the School of Business Administration.

Special Students

There are many persons already in business who feel the need of additional special training but who are unable to spend a relatively long period at the University or who cannot provide proper entrance credits. The School of Business Administration will admit as special students certain applicants who are twenty-one years of age or over. All special students are admitted on probation. These students are not candidates for degrees, but they must supply satisfactory evidence of their ability to profit from the courses to be undertaken. Such evidence would ordinarily include a statement from the employer or former employers certifying to the term, nature, and quality of their work. A personal interview with the Dean is also recommended. Veterans of World War II who apply for admission as special students must be approved by the Veterans' Administration.

Library Facilities

In addition to the splendid facilities afforded by the general library of the University, the School of Business Administration is equipped with its own collection of more than 40,000 volumes. Noteworthy is the collection of periodical publications; most of the important periodicals in several fields of business are included. The School is a regular subscriber to 120 scholarly and trade journals and receives gift subscriptions to nearly four hundred additional publications. Moreover, approximately thirty special services are subscribed to, including those of the Bureau of National Affairs, Standard and Poors Corporation, Moody's, Fitch's, and Commerce Clearing House. A sizable annual appropriation assures that the collection will be well maintained and kept up-to-date.

A full-time librarian is in charge of the Business Administration Library and is prepared to aid students in the collection of such materials for research work as may not be currently available in the University. Special library privileges consisting of access to the stack rooms and private desk space are accorded graduate students.

Lectures, Observation Trips, and Clinics

Students are expected to take advantage of the opportunities to attend lectures offered by prominent businessmen who are invited to the University for this purpose.

In addition to formal lectures, the School from time to time arranges for business leaders to come to the University for informal

discussion of current business problems in their respective fields in order to provide the student with a clearer understanding of actual business practice.

From time to time the classes in business administration visit neighboring factories and other types of business firms for the purpose of making firsthand studies of organization and administration.

The Bureau of Business Services and Research

The Bureau of Business Services and Research is an agency of the School which cooperates with the University Extension Division, the Institute of Industrial Relations, private business firms, foundations, and trade associations in organizing and extending the services and facilities of the School of Business Administration beyond the boundary of the campus.

The Bureau acts as a general clearinghouse for requests from North Carolina business and industry seeking assistance in the solution of business problems. For business executives it administers adult educational projects such as short courses, institutes, and workshops both on the campus in Chapel Hill and in towns and cities throughout the state. The Bureau acts as consultant for business firms and associations seeking to establish research and training programs requiring university-grade educational services. It organizes consultant services and schedules speakers from the staff of the School. The Bureau also cooperates with the Placement Office in helping to fill the needs of business and industry for University-trained men and women.

The section of this catalogue devoted to the Extension Division provides more detailed information on adult education projects conducted by the School.

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 since grants to the School may enable it to command important additions to the staff and provide facilities for 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. The purpose of the Julian Price Endowment is 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." The first holder of the Price professorship was named in 1948, and at the present time the insurance program is rapidly growing in importance as its contributions to the training of leaders in the insurance field proves its worth.

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 the support of instruction and research in the field of banking. Under this endowment a distinguished professorship, to be known as the Wachovia Professorship in Banking, is being established in the School.

At the annual meeting of the Business Foundation in November, 1951, the board of 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 will be known as the Reynolds Professorship and the Burlington Professorship. The income from generous gifts from the R. J. Reynolds Tobacco Company and from the Burlington Mills Corporation to the Business Foundation will be made available annually to support instructional and research work of the persons appointed by the University to these professorships.

Stenography

No credit toward the degree is given for stenography, but every student is urged to acquire facility in the use of it before graduation.

Standards of Work

The School was admitted to membership in the American Association of Collegiate Schools of Business in 1923. This is an organization formed for the promotion of high standards in education for business. Membership is based on the number and training of the faculty, the thoroughness of the academic program offered, the length and breadth of the curriculum, the financial support of the school, and the physical facilities provided for carrying on the work.

Fellowships and Assistantships

Two teaching fellowships, each of a value of \$900 plus free tuition for the academic year in the Graduate School, are awarded annually in the School of Business Administration. The recipients may be called on to do teaching or other duties in the department not exceeding one-third of their time. Applications should be made before March 1.

The attention of entering freshmen is directed particularly to the Marvin B. Smith Scholarship for students in the School of Business Administration (see page 105).

The Ernest H. Abernethy Fellowship in Southern Industry, of an annual value of \$750 plus free tuition, 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.

A number of graduate and undergraduate assistantships are awarded each year. The recipients are expected to perform such tasks as grading papers, conducting laboratories, and constructing charts.

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. The number selected is generally less than might be selected under the provisions referred to above.

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 pages 141-42.

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 begins on page 263 of this catalogue. 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.

THE GRADUATE SCHOOL

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., LL.D., *Dean*

ARNOLD KIMSEY KING, Ph.D., *Associate Dean*

*†The Administrative Board

HAROLD HOTELLING, Ph.D., *Professor of Mathematical Statistics* (1952)

GEORGE SHERMAN LANE, Ph.D., *Kenan Professor of Germanic and Comparative Linguistics* (1952)

CLIFFORD PIERSON LYONS, Ph.D., *Professor of English* (1953)

DONALD PAUL COSTELLO, Ph.D., *Kenan Professor of Zoology* (1953)

URBAN TIGNER HOLMES, JR., Ph.D., Litt.D., *Kenan Professor of Romance Philology* (1954)

GORDON WILLIAMS BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science* (1954)

CLARENCE HEER, Ph.D., *Kenan Professor of Economics* (1955)

JOHN EDGAR LARSH, JR., Sc.D., *Professor of Parasitology* (1955)

PAUL WOODFORD WAGER, Ph.D., *Professor of Political Science* (1955)

FLETCHER MELVIN GREEN, Ph.D., *Kenan Professor of History* (1956)

GLEN HAYDON, Ph.D., *Kenan Professor of Music* (1956)

ARTHUR ROE, Ph.D., *Professor of Organic Chemistry* (1956)

General Statement

The Graduate School offers opportunity for further and 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 languages. 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

* The Chancellor is an ex officio member of the Board.

† Dates indicate expiration of terms.

from the standpoint both of the personnel of its faculty and of the material equipment in libraries and laboratories.

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 an Appointments Bureau, 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 anatomy, anthropology, art, bacteriology and immunology, biological chemistry, botany, chemistry, classics, comparative literature, dramatic art, economics and business administration, education and physical education, English, geology and geography, Germanic languages, history, mathematical statistics, mathematics, music, pharmacology, pharmacy, philosophy, physics, physiology, political science, psychology, Romance languages, social work, sociology and rural sociology, 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 anatomy, biological chemistry, botany, chemistry, classics, compara-

tive literature, economics and business administration, education, English, geology and geography, Germanic languages, history, mathematical statistics, mathematics, music, pharmacy, philosophy, physics, physiology, political science, psychology, public health, Romance languages, sociology, and zoology, and in the curricula in comparative linguistics and industrial relations. Minor programs for the doctorate may be obtained in anthropology and in the curricula in folklore and personnel administration.

Professional graduate degrees are offered in art (A.M. in Creative Art), education (Master of Education), library science (Master of School Librarianship and Master of Science in Library Science), music (Master of Music), public health (Master of Science in Public Health, Master of Public Health, Master of Science in Sanitary Engineering, and Doctor of Public Health), regional planning (Master of Regional Planning), and social work (Master of Social Work).

The Curriculum in Comparative Linguistics

The Administrative Committee: The Dean, *Chairman*; Professor Lane, *Secretary*; Professors Eliason, Holmes, Jente, Ullman, and Assistant Professor Keller.

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.

Social Work

For the degree of Master of Social Work a minimum of six quarters is required. At least nine courses must be chosen from those approved by the Graduate School for the degree of Master of Arts. The selection of these courses must conform to the general rules of the Graduate School as to major and minor grouping. The same principle shall be applied, in so far as practicable, to the selection of other courses.

Application for admission should be made as far as possible in advance of the academic year. Since field work placements are limited in number and must be arranged in advance of the student's arrival, early application for admission is desirable. Application should be directed to the Dean of the School of Social Work.

The applicant for admission to pursue studies leading to the degree of Master of Social Work must have received a bachelor's degree from a college or university of recognized standing with eighteen semester hours in anthropology, economics, history, political science, psychology, and sociology, at least six semester hours of which must have been in advanced courses in one of these fields. The student deficient in these requirements may be admitted to courses, but must remove the deficiencies before being eligible for admission to candidacy for a degree.

The applicant is requested to consult the special catalogue of the School of Social Work, which is available upon request.

The Curriculum in Folklore

Administrative Committee: The Dean, *Chairman*; Professor Hudson, *Secretary*; Professors Gillin, Holmes, Jente, Johnson, Schinhan, and Assistant Professor Keller.

The facilities of the University available in such departments as English, Germanic Languages, Music, Romance Languages, and Sociology 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.

Public Health

This curriculum, leading to both master's and doctor's degrees, has been authorized by the Administrative Board of the Graduate School. For information consult the catalogue of the Graduate School and the special bulletin of the School of Public Health.

The Curriculum in Industrial Relations

Administrative Committee: The Dean, *Chairman*; Professor Wolf, *Director*; Professors Adkins, Blackwell, Calhoun, Green, King, 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 Wager, *Secretary*; Professors Adkins, King, Jocher, Wolf, and Associate Professor G. G. Ellis.

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 the Requirements for Higher Degrees*

MASTER'S DEGREES

1. A bachelor's degree from a recognized institution.
2. A minimum period of three quarters of resident study.
3. A reading knowledge of one modern foreign language. (But see the catalogue of the Graduate School.)
4. Nine graduate courses, six of which must be in the department of the major.
5. A written examination in the field of the major.
6. An oral examination covering the entire field of study.
7. A thesis.

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. (But see catalogue of the Graduate School.)
4. A major covering adequately the field of major interest and at least six courses in a minor, which may under special circumstances be in the same department.

* Requirements for professional graduate degrees differ in some respects from this summary. Consult the catalogues of the Graduate School and professional schools for complete information.

5. A preliminary oral examination.
6. A written examination in the field of major interest.
7. An oral examination covering the entire field of study.
8. A dissertation.

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, reference must be made to the special catalogue of the Graduate School.

THE SCHOOL OF LAW

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.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, A.M., J.D., *Associate Professor of Law*

HERBERT R. BAER, A.B., LL.B., *Professor of Law*

HENRY P. BRANDIS, JR., A.B., LL.B., LL.D., *Professor of Law and Dean of the School of Law*

MILLARD SHERIDAN BRECKENRIDGE, Ph.B., LL.B., *Professor of Law*

ALBERT COATES, A.B., LL.B., *Professor of Law and Director of the Institute of Government*

JOHN PERCY DALZELL, A.B., LL.B., *Professor of Law*

FRANK WILLIAM HANFT, A.B., LL.M., S.J.D., *Professor of Law*

FREDERICK BAYS MCCALL, A.B., LL.B., *Professor of Law*

MAURICE TAYLOR VAN HECKE, Ph.B., J.D., *Professor of Law*

ROBERT HASLEY WETTACH, M.A., LL.B., S.J.D., *Professor of Law*

General Statement

The School of Law, now in its one hundred and seventh year and with a regular faculty of ten, offers a three-year course leading toward the degrees of LL.B. and J.D. It is on the approved lists of the North Carolina Board of Law Examiners, of the Regents of the State of New York, and the American Bar Association. It is a member of the Association of American Law Schools and is one of thirty-eight of the leading law schools of the country in which a chapter of the honorary society of the Order of the Coif has been established.

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 North Carolina and in other states.

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.

Normally, beginning students are admitted only once a year, at the opening of the fall semester.

The curriculum covers a period of three annual sessions, but this time may be shortened by attendance during summer sessions.

The School of Law is located in Manning Hall. The Law Library, in the charge of two trained law librarians and a staff of assistants, now approaches 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 all 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 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 upon the student editorial staff of the *North Carolina Law Review*, as faculty research assistants, and as library assistants.

For further information, write to the Dean of the School of Law for the separate bulletin of that school.

THE SCHOOL OF MEDICINE

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

WALTER REECE BERRYHILL, A.B., M.D., *Dean*

Executive Committee

WALTER REECE BERRYHILL, A.B., M.D., *Professor of Clinical Medicine and Dean of the School of Medicine*

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JOHN HOWARD FERGUSON, M.A., M.D., *Professor of Physiology*

JAMES CLARENCE ANDREWS, Ph.D., *Professor of Biological Chemistry and Nutrition*

KENNETH MERLE BRINKHOUS, A.B., M.D., *Professor of Pathology*

CHARLES WRIGHT HOOKER, Ph.D., *Professor of Anatomy*

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ROBERT RANDALL CADMUS, A.B., M.D., *Director of the University Hospital*

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GEORGE CAVERNO HAM, M.D., *Professor of Psychiatry*

NATHAN ANTHONY WOMACK, B.S., M.D., *Professor of Surgery*

Committee on Admission

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ELIZABETH LOUANNA KEMBLE, R.N., Ed.D.	WILLIAM RINGGOLD STRAUGHN, M.S.
	ROGER EDWARD STURDEVANT, D.D.S.

General Statement

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 pre-clinical 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 to its growth. At first the course covered only one year, but in 1896, the medical course having been extended in the better class of 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 for lack of financial support, and the clinical years were discontinued.

The School has been a member of the Association of American Medical Colleges since 1908 and is on the approved list of schools of basic medical sciences as published by the Council on Medical Education and Hospitals of the American Medical Association.

The curriculum is similar to that in the first two years of the better four-year medical schools in the country. It covers all the pre-clinical or laboratory subjects of the four-year course in medicine, as well as introductory clinical courses in the last two quarters of the second year. These courses in medicine, physical diagnosis, clinical

pathology, surgery, and obstetrics serve to lessen the abruptness of the change from the laboratory situation to the clinical.

The School has an arrangement with Watts Hospital in Durham and Rex Hospital in Raleigh whereby the ward and dispensary patients are available for teaching purposes in the clinical courses. The clinical material at the State Hospitals in Raleigh and Butner, and the State Tubercular Sanatorium at McCain, are available for teaching purposes.

Students who have successfully completed the two-year course in this school are given full credit for all of their work and are transferred into the third year of American medical colleges of the highest rank, from which they receive the degree of Doctor of Medicine. During the past ten years students who have completed their two years in this school have been transferred to thirty different four-year medical colleges from McGill in the North to Tulane in the South, and from Harvard in the East to the University of California in the West.

Approximately 25 per cent of the physicians now in active practice in North Carolina received the first two years of their medical training here.

Preparation and Requirements for Medicine

Students preparing for the study of medicine 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 Medicine, or they may make 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 Medicine. This last method of preparation is not recommended.

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 (qualitative and 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); English—such knowledge as is ordinarily required of candidates for a degree in an approved college (usually the courses required of freshmen and sophomores); four to six courses in a modern foreign language (French, German, or Spanish), depending upon credits presented for entrance to college. In addition, courses in volumetric quantitative analysis,

comparative anatomy, vertebrate embryology, modern physics, and physical chemistry are strongly recommended.

Rarely are students admitted who have completed only the minimal requirements unless their academic records are of outstanding excellence. It is especially advised that all students present more work in chemistry and zoology than the minimal requirements outlined above.

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

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. A student interested in the study of medicine should attempt to stand in the upper third of his academic class.

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 either ethical standards or a sense of social responsibility.

All admissions are decided by a special committee on admissions, with the approval of the Dean. The maximum number admitted to the first-year class is fifty-eight. The special 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 medicine.

Candidates for admission to the second year of the medical curriculum must present certificates from an accredited medical school stating that they have had the fifteen high school units required for college entrance, at least three years of college work as indicated above, and have completed the subjects of the first year of the medical course as outlined.

Medical Curriculum

The medical curriculum for the session 1951-1952 covered two years or six quarters of approximately equal length. It was organized into seven departments: Anatomy, Bacteriology and Immunology, Biological Chemistry and Nutrition, Pathology, Pharmacology, Physiology,

and a clinical department consisting of introductory courses in medicine, physical diagnosis, surgery, psychiatry, pediatrics, and obstetrics. For a description of courses and other details see the catalogue of the School of Medicine.

Beginning in September, 1952, the first junior class will be admitted for instruction in the clinical subjects and in September, 1953, the first senior class will begin. The departments of Medicine, Surgery, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Radiology are being organized for the instruction of junior and senior students and for the corresponding services in the Hospital.

Announcements will be made later in regard to the more detailed plans for the complete four-year medical curriculum leading to the degree of Doctor of Medicine.

THE SCHOOL OF PHARMACY

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Graduate School*

EDWARD ARMOND BRECHT, Ph.D., *Dean*

Advisory Board of the Division of Health Affairs

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ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *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 1925 obtained exclusive use of its present building, Howell Hall of Pharmacy. This building contains 35 rooms and 22,000 square feet of floor space.

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 Pharm.).

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 college. 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 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. Applicants should appear at the School of Pharmacy for interviews with the Dean and two members of the faculty. Applications should be filed as early as possible, preferably in the period between February 1 and March 1. The fall quarter 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 three quarters within the period of twelve months. A full year's work comprising at least forty-five quarter 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 by 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 three majors available are pharmacy, pharmaceutical chemistry, and pharmacognosy.

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

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.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*

WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Graduate School*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *Dean of the School of Public Health*

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., *Dean of the School of Public Health*

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ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

ROBERT RANDALL CADMUS, A.B., M.D., *Director of the University Hospital*

General Statement

The field of public health, in comparison with its better-known parents—clinical medicine, clinical dentistry, and bedside nursing—is concerned with the health problems of the group rather than with those of the individual. In public health the usual goals of individual health are broadened to include the group diagnosis and treatment of the population for its disease, the prevention of disease, and the conservation of community health. In our complex social order, achievement of these goals requires a team of professional workers who, beyond their basic professional skills, have acquired the knowledge and disciplines which will enable them to diagnose and treat the diseases of the group and to bring about their prevention. The newer knowl-

edges of health science which are necessary to accomplish these aims are to be found for the most part in the disciplines of biostatistics, epidemiology, public administration, health education, public health nursing, sanitary engineering, maternal and child health, parasitology, and community nutrition.

The objective of the School of Public Health is to prepare its students, who already have acquired professional status in such fields as medicine, education, and engineering, in the specific disciplines and subject areas that are basic to public health. While stress is laid on those techniques of the physical, biological, and social sciences which are applicable to this field, the final goal of instruction is the integration of these techniques in terms of the relationship of the group to its physical and social environment and of the total effect of environment on the physical and mental well-being of mankind. To attain its objective the School of Public Health is organized into eleven departments. The departments of the School are: Biostatistics, Epidemiology, Experimental Medicine, Field Training, Health Education, Maternal and Child Health, Mental Health, Parasitology, Public Health Administration, Public Health Nursing, Public Health Nutrition, and Sanitary Engineering.

The School of Public Health is one of five schools which, together with the University Hospital, have been grouped to form the Division of Health Affairs of the University. This grouping of Medicine, Pharmacy, Public Health, Dentistry, and Nursing into a complete medical center will be the focal training and service point for an integrated state-wide health program and will offer a new opportunity for the student to broaden his vision and concept of health services.

For the benefit of its students the School of Public Health maintains a number of affiliations with state and local agencies. It enjoys the active cooperation of the State Department of Health at Raleigh. Members of this staff give lectures and exercises in their special fields, and the students have an opportunity to observe the practice and to study at first hand the methods and materials of an efficient state health organization. The School also uses the local health departments at Durham and Chapel Hill. Members of the staff lecture and give practical demonstrations which permit the student to see the health work of a city and county government. Here, together with the facilities at Raleigh, opportunity is offered for the observation and investigation of health problems at the city, county, and state level.

Cooperation is maintained with the Institute of Statistics at North Carolina State College in Raleigh and with Duke University and Duke Hospital, Watts Hospital, and the Rapid Treatment Center in

Durham. Similarly, the School calls upon the staffs of the United States Public Health Service, the Children's Bureau, and other federal health agencies to participate in its teaching program through lectures, discussions, consultations, and research.

For county and city health work, field demonstration units have been established in twenty city, county, and district health departments in North Carolina and nine other states in the Southeastern region.

The School has the distinction of being one of the ten schools of public health in North America which are accredited by the American Public Health Association. Graduate degrees offered by the School are 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, 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. In addition there is a four-year program leading to the degree of Bachelor of Science in Public Health. Both of these degrees are administered by the College of Arts and Sciences.

The Certificate in Public Health (C.P.H.) and Certificate in Public Health Nursing (C.P.H.N.) are not considered graduate degrees.

For more detailed information concerning preparation and admission requirements and proposed curricula leading to degrees, see the special catalogue of the School of Public Health.

THE SCHOOL OF DENTISTRY

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Dean*

Advisory Board of the Division of Health Affairs

WALTER REECE BERRYHILL, A.B., M.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 University Hospital*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

ROBERT ERVIN COKER, Ph.D., *Kenan Professor of Zoology*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *Dean of the School of Public Health*

Executive Committee of the School of Dentistry

JAMES CLARENCE ANDREWS, Ph.D., *Professor of Biological Chemistry and Nutrition*

CLAUDE ROWE BAKER, A.B., D.D.S., M.S., *Professor of Fixed Partial Dentures, Secretary*

JOHN CHARLES BRAUER, A.B., D.D.S., M.Sc., *Professor of Pedodontics and Dean of the School of Dentistry, Chairman*

KENNETH MERLE BRINKHOU, A.B., M.D., *Professor of Pathology*

THOMAS CULLOM BUTLER, A.B., M.D., *Professor of Pharmacology*

WILLIAM WELLESLEY DEMERITT, D.D.S., *Professor of Pedodontics*

JOHN HOWARD FERGUSON, M.A., M.D., *Professor of Physiology*

WALTER ALEXIS HALL, JR., B.S., D.D.S., M.S., *Professor of Prosthodontics*

CHARLES WRIGHT HOOKER, Ph.D., *Professor of Anatomy*

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*

MICHAEL KALEN BERKUT, B.S.

CORNELIUS TIMPSON KAYLOR, Ph.D.

FRANK COLEMAN CADY, D.D.S., M.P.H.

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. Construction also is under way for the four-hundred-bed teaching hospital, nurses' dormitories, 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 medicine, the University Hospital, and the other schools of the Division. Students of dentistry and medicine will attend comparable basic science courses, and they will be required to meet equally high academic standards in all areas.

The first class in the School of Dentistry began in the fall of 1950. The total number of students to be selected in the first two years will be limited to forty for each class. Until the new dental building is completed, which should be accomplished in the fall of 1952, the pre-clinical technical instruction will be done in temporary quarters, and most of the instruction in the pre-clinical basic science subjects will be provided in the facilities and departments of the School of Medicine. Following the completion of the building, a maximum of fifty students will be selected each year, consistent with the requirements for dentists in North Carolina. Priority in selection of students will be given to residents of North Carolina and, secondly, to residents of the Southeastern states.

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 fin-

ancial 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 (qualitative and 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).^{*} In addition, courses in volumetric quantitative analysis, comparative anatomy, vertebrate embryology, modern physics, and physical chemistry are strongly recommended.

Because of the widening social and 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 is not sufficient space in the dental 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 dental curriculum, the quality of the student's undergraduate work is of the greatest importance. A student interested in the study of dentistry should attempt to stand in the upper third of his academic class.

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.

^{*} 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.

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.

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.

THE SCHOOL OF NURSING

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.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*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean*

Advisory Board of the Division of Health Affairs

WALTER REECE BERRYHILL, A.B., M.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 University Hospital*

HENRY TOOLE CLARK, JR., A.B., M.D., *Administrator of the Division of Health Affairs*

ROBERT ERVIN COKER, Ph.D., *Kenan Professor of Zoology*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *Dean of the School of Public Health*

General Statement

The School of Nursing offers a four-year integrated curriculum leading to the degree of Bachelor of Science in Nursing. The first class was admitted in the fall quarter of 1951. Classes are admitted in the fall quarter of each year.

The aim of the School is to provide well-organized learning experiences leading to the graduation of students who have acquired the necessary knowledge, skills, and appreciations to function effectively in any first-level position in nursing.

The curriculum covers approximately four years and is based upon a broad general education. Nursing courses begin with understandings essential to the maintenance of health and the prevention of disease and progressively include courses in the nursing care of the sick. Students will have experience in the clinical areas of the hospital and in a variety of institutions and agencies concerned with the maintenance

of health. Social, public health, mental health, and nutrition components are among the areas integrated throughout the program to prepare the graduate to function as a member of the health team.

Students in the School of Nursing are regular students in the University and must meet all University requirements as well as special regulations of the School of Nursing.

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:

<i>Subjects</i>	<i>Units</i>
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 work)
Physics, Biology or General Science	1
Electives	2½
	—
	15

Variations from the above requirements will be considered on an individual basis.

Age: Students between the ages of 17 and 25 are eligible for admission to the University of North Carolina School of Nursing. Younger or older applicants will be considered on an individual basis.

Applicants who have had one or more years of college work and who wish to be considered for admission to the University of North Carolina School of Nursing, should write for further information. After evaluation of the student's college transcript, it is possible that the applicant may qualify for admission to the second year of the program. Arrangements can be made with the Dean of the School of Nursing for taking course work during the summer session prior to admission in order to take nursing courses scheduled for the first year. This will permit the transfer student to start the second year without deficiencies.

Personal Qualifications

Preference will be given to those students who have previously demonstrated satisfactory academic achievement. Applicants are required to present evidence of satisfactory academic qualifications, physical and emotional fitness for nursing, and liking for and ability to get along with people.

Further information may be obtained by writing to the Dean of the School of Nursing.

THE SCHOOL OF SOCIAL WORK

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Graduate School*

*ARTHUR EMIL FINK, Ph.D., M.S.W., *Dean*

ALAN KEITH-LUCAS, M.A., M.Sc. (Soc. Admin.), *Acting Dean*

†‡Administrative Board

KATHARINE JOCHER, Ph.D., *Professor of Sociology and Assistant Director of the Institute for Research in Social Science (1952)*

PAUL WOODFORD WAGER, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science (1952)*

SIDNEY SHAW CHIPMAN, B.A., M.D., M.P.H., *Professor of Maternal and Child Health (1953)*

DOROTHY MCCUSKEY, Ph.D., *Associate Professor of Education (1953)*

DOROTHY C. ADKINS, Ph.D., *Professor of Psychology (1954)*

PAUL NEWMAN GUTHRIE, Ph.D., *Professor of Economics (1954)*

ROBERT RANDALL CADMUS, A.B., M.D., *Administrator of the University Hospital (1955)*

ARNOLD KIMSEY KING, Ph.D., *Associate Dean of the Graduate School (1955)*

GORDON W. BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science (1956)*

HENRY PARKER BRANDIS, JR., A.B., LL.B., LL.D., *Dean of the School of Law (1956)*

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

* Absent on leave, 1951-1952.

† The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

‡ Dates indicate expiration of terms.

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 an accredited member of the American Association of Social Workers. Its program for the training of psychiatric social workers is approved by the American Association of Psychiatric Social Workers.

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 nature 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.

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's degree is based upon a seven quarter program, of which four quarters are on the campus and three quarters are in field work instruction in an approved welfare agency. The first year consists of the first quarter on the campus, the second quarter in a field work agency, the third quarter on the campus. Admission to the first year is in June and September. The second-year program begins with the summer quarter on the campus, the fall and winter quarters in a field work agency, and the fourth (spring) on the campus.

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

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Graduate School*

SUSAN GREY AKERS, Ph.D., *Dean*

***The Administrative Board**

SUSAN GREY AKERS, Ph.D., *Professor of Library Science and Dean of the School of Library Science*

WERNER PAUL FRIEDERICH, Ph.D., *Professor of German and Comparative Literature*

LUCILE KELLING, A.B., B.L.S., *Professor of Library Science*

STURGIS ELLENO LEAVITT, Ph.D., Litt.D., *Kenan Professor of Spanish*

GUY BERRYMAN PHILLIPS, M.A., *Professor of Education and Dean of the School of Education*

CHARLES EVERETT RUSH, A.B., A.M., B.L.S., *Director of Libraries and Professor of Library Science*

PAUL WOODFORD WAGER, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science*

LOUIS ROUND WILSON, Ph.D., Litt.D., L.H.D., *Professor of Library Science*

General Statement

The School of Library Science opened in September, 1931, as a unit of the University of North Carolina. Made possible by a grant from the Carnegie Corporation, it is the culmination of a series of library science courses offered in the summer and regular terms since 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 recently completed west wing of the University Library.

The town school system maintains a high school library and an elementary school library available for observation. Within driving

* The Chancellor, the Director of Admissions, and the Dean of Students are ex officio members of the Board.

distance of from thirty minutes to two hours are the State Library; the Library Commission headquarters; 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 four programs: a twenty-eight quarter hour undergraduate program for students interested in preparing for positions as teachers *and* librarians in the smaller public schools; a basic one-year program for college graduates preparing for beginning positions; and two masters' programs, one for public school librarians and one for work in any type of library.

Applicants should plan their entrance into the School at the beginning of the fall quarter or summer session. Many courses have prerequisite work 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 all of the programs 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.

Twenty-seven quarter hours in an approved library science program is a prerequisite for admission to the program for the degree of Master of School Librarianship and thirty quarter hours for admission to the program for the degree of Master of Science in Library Science.

Forty-five quarter hours must be satisfactorily completed in residence in the University of North Carolina for any degree in library science. Students who are admitted with advanced standing in library science must complete in the School or in another division of this institution an equivalent number of courses approved by the Dean. All work credited towards a degree must be completed within a period of six years.

All requirements concerning these degrees are administered by the faculty of the School of Library Science and the requirements for the masters' degrees are administered by the faculty of the School with the approval of the Administrative Board of the Graduate School.

On the completion of a curriculum in the School of Library Science the University will grant the degree of Bachelor of Science in Library Science, Master of School Librarianship, or Master of Science in Library Science.

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 the *Dean, School of Library Science, The University of North Carolina, Chapel Hill, N. C.*

For further information regarding the undergraduate courses see page 308 under Department of Library Science; 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 School of Law, is arranged and offered on the quarter system, the regular session being divided into three approximately equal parts called the fall, winter, and spring quarters. The summer session is divided into two terms.

Work is valued and credited toward degrees by quarter hours, one such hour being allowed for each class meeting a week for a quarter, 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 quarter hours. Except in the case of courses meeting regularly five 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 AND TACTICS

Professor: J. J. MOORHEAD, *Lieutenant Colonel, USAF*

Associate Professors: R. H. BAKER, *Lieutenant Colonel, USAF*; MARK T. ORR, *Lieutenant Colonel, USAF*

Assistant Professors: R. L. BUNTING, *Major, USAF*; NOEL CARPENTER, *Major, USAF*; J. O. YOUNG, *Major, USAF*; E. D. ROBERTSON, *Captain, USAF*; J. A. SCHOFIELD, *Captain, USAF*

Instructors: W. L. DUNLAP, *Master Sergeant, USAF*; D. L. SPIRES, *Master Sergeant, USAF*; T. R. ST. LOUIS, *Technical Sergeant, USAF*; MICHAEL PENNELLA, *Master Sergeant, USAF*

Administrative: L. T. EURE, *Master Sergeant, USAF*; B. R. DAUGHERTY, *Staff Sergeant, USAF*

Supply: R. F. CONDIT, *Technical Sergeant, USAF*

General Information

The Air Force ROTC unit constitutes a regular department of instruction within the University. It is known as the Department of Air Science and Tactics. Academic credits toward degrees are allowed, as in other departments.

AIR FORCE COMMISSIONS

Opportunity will be given outstanding students to request commissions in the regular Air Force if they so desire. Others may request extended active duty as reserve officers for periods of from one to three years and receive flying training during such active duty periods.

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 camp students receive in addition approximately \$105.00.

Course of Instruction

Air Force ROTC is divided into two phases, the basic course during the freshman and sophomore years and the advanced course during the junior and senior years. Training in the basic course is primarily in World Political Geography and basic military subjects. In the advanced course, subjects are mainly of a specific nature with emphasis on Air Comptrollership, Flight Operations, and Public Information. Graduates of the Comptrollership course will be desig-

nated as Air Comptrollers; graduates of the Public Information course will be designated as Public Information Officers; and graduates of the Flight Operations course, when called to active duty in the Air Force will, in most cases, attend Pilot, Navigator, or Bombardier School.

BASIC COURSE

Male students in the freshman class who are physically qualified, American citizens, and not yet 23 years of age, may take the basic courses in military science as a requirement toward graduation. Students who are graduates of the Junior Division (High School) ROTC may be granted credit for a portion of the basic course. Credit also will be allowed equivalent to the first year of the basic course for six months or more of honorable service in World War II in the Army, Navy, Marine Corps, or Coast Guard.

ADVANCED COURSE

The advanced course consists of two years of instruction and a summer camp. The camp, at present, of six weeks duration, 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 twelve months or more of honorable active service in World War II in the Army, Navy, Marine Corps, or Coast Guard to be eligible for enrollment in the advanced course and must:

- a. not have reached 25 years of age at the time of initial enrollment;
- b. be physically fit as evidenced by a physical examination;
- c. have at least six academic quarters to complete before graduation;
- d. be pursuing a course with the intention of securing a degree;
- e. sign an agreement (contract) in writing to complete the course.

Academic Credits

BASIC

For successful completion of the basic program covered during the freshman and sophomore years, the student receives a total of 18 quarter hours credit.

Credits earned in the basic course may be substituted for the following General College requirements:

- a. For students entering the School of Business Administration, successful completion of the AFROTC basic course may be substituted for two of the required laboratory sciences.
- b. For students entering the College of Arts and Sciences, successful completion of the AFROTC basic course may be substituted for two of the required laboratory sciences or two of the required freshman social sciences, or for one of the required laboratory sciences and one of the required social sciences.

ADVANCED

The advanced program requires attendance for the six quarters involved during the junior and senior years. A six-week training period (summer camp) is required between the junior and senior years. For the successful completion of the advanced program, credit for a total of five courses is granted.

Credits earned in the advanced course may be substituted for the following required courses:

- a. School of Business Administration. Successful completion of the AFROTC advanced course may be substituted for five non-divisional electives or four non-divisional electives and one divisional elective.
- b. College of Arts and Sciences. Successful completion of the AFROTC advanced course may be substituted for five non-divisional elective or allied courses at the discretion of the dean.

Grading System

The status of each student in the Air Force ROTC is that of an officer candidate. Evaluation of his abilities is not based entirely on the grade he is awarded for classroom recitations, oral or written, but includes his attitude and ability as a leader during 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.

Distinguished Military Graduates

Upon completion of the advanced course, students who have outstanding records in military science as well as other academic subjects will be classed as Distinguished Military Graduates and be eligible to apply for Regular United States Air Force commissions.

Texts and Equipment

The federal government provides all necessary texts and equipment to carry out the Air Force ROTC 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 all drill periods and may be worn at other classes and exercises.

Enrollment and Continuance Requirements

The general requirements for enrollment and continuance in the Air Force ROTC are that the student be a citizen of the United States, be physically qualified as prescribed by the Department of the Air Force, be accepted by the institution as a regularly enrolled student, be under 23 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 the basic and advanced courses. A student entering with advanced standing by reason of one year's military service may enroll at an age which will enable him to complete all requirements for a commission before his twenty-seventh birthday. Enrollees in the advanced course must agree to complete the course of instruction offered unless relieved by the Department of the Air Force.

Deferment

A quota for deferment from induction into the armed services is assigned each year to the Air Force ROTC at this University. These deferments are allotted to individual enrollees of the program in accordance with their relative standing. Such deferred students are exempt from service in the armed forces while pursuing the Air Force ROTC program and, in general, until graduation from the University.

Summer Camp

The advanced camp consists of a six-week period of intensive applicatory training in general and specialized military and Air Force fields, and normally is attended by the advanced course student during the summer—between the two academic years of the course. Attendance at summer camp will be considered an integral part of the AFROTC course of instruction offered the first quarter of the senior year. Any student who does not attend summer camp after his junior year will receive an “incomplete” grade on Air Science 401. This “incomplete” will have to be removed before the student can complete the requirements for graduation. This can be done by the student’s attending summer camp after his senior year; at which time, the requirements for a degree and commission will be satisfied.

*Curriculum

BASIC COURSE

AS 101-102-103 (9). No credit will be given for AS 101 and 102 until AS 103 is completed.

World Political Geography.

This course is concerned primarily with the study of men, space, and resources, and seeks to present an objective and systematic analysis of the factors which determine national policy and power. Among the factors of national power which are considered are: geographical location, physical features, size, shape, depth, and boundaries; economic resources and industrial capacity; population and population trends; and national internal and external problems. The course also encompasses applicable elements of history, economics, and government.

Two lecture and two laboratory hours a week, 101, fall quarter; 102, winter quarter; 103, spring quarter.

AS 201-202-203 (9). No credit will be given for AS 201 and 202 until AS 203 is completed.

Air Power Concepts.

Basic Air Force subjects including: organization for the defense of the United States; maps, aerial photographs and aerial navigation; meteorology; aerodynamics and propulsion; applied air power; personal maintenance.

Two lecture and two laboratory hours a week, 201, fall quarter; 202, winter quarter; 203, spring quarter.

ADVANCED COURSE

Air Comptrollership

AS 301, 302, 303 (4 each).

General Subjects.

The first phase of this series of courses provides a basic knowledge of the following subjects: military publications, elementary Air Force supply procedures, air operations, Air Force leadership.

* Attention is called to the addition of two courses in Basic Air Science, AS 103, and 203, and the Flight Operations program in Advanced Air Science, as prescribed by recent Air Force regulations.

Air Comptrollership.

The second phase of this series of courses provides an introduction to Air Comptrollership and covers the following subjects: the duties and functions of statistical services; the Air Force budget structure, process, formulation and execution; fiscal accounting and procedures; functions, responsibilities and objectives of the Auditor General; the principles, theory and application of the Air Force cost control system.

Four lecture and two laboratory hours a week, 301, fall quarter; 302, winter quarter; 303, spring quarter.

AS 401, 402, 403. (13).

Air Comptrollership.

The first phase of this series of courses is designed to develop an understanding of the comptroller concept, of the operating functions, methods for improving operational efficiency. A detailed study is made of the management analysis functions, including program analysis, progress analysis, cost analysis, and methods engineering. By accomplishing actual program, progress, and cost analyses, the student is brought into contact with the comptroller problems he may face in later service life.

General Subjects.

The second phase of this series of courses covers applied fields of Air Force officer orientation and includes the following subjects: Air Force administration, military teaching methods, Air Force management, career development, Air Force inspection systems, logistics, military law and boards.

Five lecture and two laboratory hours a week, 401, fall quarter; four lecture and two laboratory hours a week, 402, winter quarter; 403, spring quarter.

Flight Operations

AS 307, 308, 309 (4 each).

General Subjects.

The first phase of this series of courses provides a basic knowledge of the following subjects: military publications, elementary Air Force supply procedures, air operations, Air Force leadership.

Flight Operations.

The second phase of this course is specialized. It provides an introduction to AS 406 and covers the following subjects: mission, type of equipment, operational methods of major air commands; principles of flight; aircraft engineering; instruments; air navigation; meteorology.

Four lecture and two laboratory hours a week, 307, fall quarter; 308, winter quarter; 309, spring quarter.

AS 407, 408, 409 (13).

Flight Operations.

The first phase of this series of courses is designed to offer advanced instruction in navigation and bombing to include the theory of radar as applied to both; and the duties and responsibilities of the electrical counter-measures officer and radar observer, all weather fighter.

General Subjects.

The second phase of this series of courses covers applied fields of Air Force officer orientation and includes the following subjects: Air Force administration, military teaching methods, Air Force management, career development, Air Force inspection systems, logistics, military law and boards.

Five lecture and two laboratory hours a week, 407, fall quarter; four lecture and two laboratory hours a week, 408, winter quarter; 409, spring quarter.

Public Information

AS 304 (4).

General Subjects.

The first phase of this course provides a basic knowledge of the following subjects: military publications, elementary Air Force supply procedures, air operations, Air Force leadership.

Public Information.

The second phase of the course is specialized. It provides an introduction to Air Force public relations and covers the following subjects: the field of public relations, public opinion, community studies, Air Force policies and missions.

Four lecture and two laboratory hours a week, fall quarter.

AS 305, 306 (10).

Public Information.

Students in the Public Information Course must take the following courses to meet the requirements of AS 305, 306: Journalism 53, English 44.

AS 404 (5).

Public Information.

A specialized course designed to prepare students for duty as Air Force Public Information Officers. The objectives, missions, and functions of the Air Force public relations program are covered. Students are required to perform typical Air Force Public Information Officer duties.

Five lecture and two laboratory hours a week, fall quarter.

AS 405 (5).

Public Information.

Students in the Public Information Course must take Radio 75s to meet the requirements of AS 405.

Winter quarter.

AS 406 (4).

General Subjects.

A required course for students in the Public Information Course. It covers applied fields of Air Force officer orientation and includes the following subjects: Air Force administration, military teaching methods, Air Force management, career development, Air Force inspection systems, logistics, military law and boards.

Four lecture and two laboratory hours a week, spring quarter.

Drill and Exercise of Command

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.

DEPARTMENT OF ANATOMY

Professors: C. W. HOOKER, W. C. GEORGE

Associate Professors: C. D. VAN CLEAVE, C. T. KAYLOR

Assistant Professor: B. L. TRUSCOTT

Instructors: J. A. GREEN, H. F. PARKS, H. C. PATTERSON, JR.

Lecturers: W. W. VAUGHAN, ALEXANDER WEBB, JR.

Teaching Assistants: R. I. WALKER, A. G. WEBB, JR.

Technicians: JANE WINSTEAD, DOROTHY B. JONES, SUE SLIGH, L. B. COLIE

The courses include gross and microscopic anatomy, embryology, the topography of the body, the application and relation of anatomy to medicine and surgery, and the anatomy of the central nervous system and the organs of special sense. Before registering for any of these courses the non-medical student must secure the permission of his dean and the head of the department.

101. CENTRAL NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE (6).

Three lecture and six laboratory hours a week, winter quarter. Laboratory fee for non-medical students, \$5.00. Messrs. Truscott, Parks, Walker.

102. GENERAL HISTOLOGY AND ORGANOLOGY (10).

Five lecture and ten laboratory hours a week, fall quarter. Laboratory fee for non-medical students, \$5.00. Messrs. George, Hooker, Parks, Walker, A. G. Webb.

103. EMBRYOLOGY (4).

One lecture and two laboratory hours a week, fall and winter quarters. Laboratory fee for non-medical students, \$5.00. Messrs. George and A. G. Webb.

104. CYTOLOGY AND HISTOGENESIS (6). Prerequisites, Anatomy 102, Anatomy 103.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$5.00. Mr. George.

107ab. GROSS ANATOMY (20).

Five lecture and twelve laboratory hours a week, fall and winter quarters. Laboratory fee for non-medical students, \$15.00. Messrs. Van Cleave, Kaylor, Green, Hooker, Patterson, Truscott, Vaughan, A. Webb.

ANTHROPOLOGY

(See Sociology and Anthropology)

ARCHAEOLOGY

(See Classics)

DEPARTMENT OF ART

Professors: J. V. ALLCOTT, KENNETH NESS, CLEMENS SOMMER

Visiting Sculptor: ROBERT HOWARD

Assistant Professor: GEORGE KACHERGIS

Curator: LYNETTE WARREN

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 arts 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. The study of art at the University is facilitated by books and photographs in Person Hall Art Library and by exhibitions in Person Hall Art Gallery and in the Morehead Building.

Course leading to the A.B. degree with art as a major. In the first two years the regular General College program is modified to make possible the taking of basic art courses as follows: In the freshman year, Art 44, 45, 46; in the sophomore year, Art 48, 49, 84, and choose two from Art 41, 42, 43. Non-art courses normally taken in the freshman and sophomore years: English 1, 2, 3; four courses in laboratory science; Mathematics 7 and 8 (or Greek or Latin); four courses in a foreign language. Other courses in the regular General College program are taken at a later time. The undergraduate major in art in the junior and senior years permits 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. Persons not regularly enrolled in the University who desire instruction in studio work may obtain special instruction by members of the art department. For courses in ancient art see the courses listed under the Department of Classics.

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.

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 (5).

Fall quarter. Mr. Sommer.

42. HISTORY AND INTERPRETATION OF SCULPTURE (5).

Winter quarter. Mr. Sommer.

43. HISTORY AND INTERPRETATION OF PAINTING (5).

Spring quarter. Mr. Sommer.

The following three courses are offered for the general student to give him an approach to art through work in the studio. These courses are planned in the belief that studio work can be a natural and direct way toward an understanding of art. None of the courses seeks to develop skills, and no special art facility is required of the student. Each course may be taken independently.

44. APPROACHES TO DRAWING (3).

Basic approaches used in drawing, and an introduction to the structural elements of a picture. Pencil, charcoal, pen and ink are used and investigated for the qualities of line and tone inherent in them. Problems are in still life, landscape, and the figure.

Nine studio hours a week, fall quarter; winter quarter, 1952. Laboratory fee, \$7.50. Messrs. Kachergis, Howard.

45. BEGINNING PAINTING (3).

An introduction to color used to express form and space, and the possibilities of paint and brushes to construct various systems and qualities of lines, planes, and textures. Problems in still life, landscape, and the figure.

Nine studio hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Kachergis.

46. THE LANGUAGE OF SCULPTURE (3).

An introduction to the sculptor's means of expression; three-dimensional design in mass, volume, space, and line. Work in clay and other materials.

Nine studio hours a week, fall and spring quarters. Laboratory fee, \$7.50. Mr. Howard.

48. LETTERING AND LAYOUT (3).

Fundamentals of lettering. Newspaper and magazine layout with emphasis on studio methods and techniques. Open to students in advertising, journalism, and other fields.

Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. 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, spring quarter. Laboratory fee, \$7.50. 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, winter quarter. Laboratory fee, \$7.50. Mr. Allcott.

51. MEDIEVAL ARCHITECTURE (5).

An illustrated lecture course on the great cathedrals in France, Germany, and England during the Romanesque and Gothic periods.

Mr. Sommer.

52. RENAISSANCE ARCHITECTURE (5).

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 (5).

An illustrated lecture course on architecture and related design in furniture and abstract art. Field trips.

Fall quarter. Mr. Allcott.

54. ADVERTISING DESIGN (3). Prerequisites, Art 44, 45, 48.

Design of magazine page, poster, book jacket, packaging, direct mail, and other forms of advertising. Problems from spot designs to comprehensive rendering of larger projects.

Nine studio hours a week, spring quarter, 1953. Laboratory fee, \$10.00. Mr. Ness.

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; methods of presenting projects.

One lecture and six studio hours a week, fall and winter quarters. Laboratory fee, \$7.50. Mr. Kachergis.

61. MEDIEVAL SCULPTURE.

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 (5).

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 (5).

From colonial times to the present.

Mr. Allcott.

71. ITALIAN RENAISSANCE PAINTING (5).

A study of painting in Italy during the fifteenth and sixteenth centuries and of its significance for the cultural development.

Mr. Sommer.

74. BAROQUE PAINTING IN THE NETHERLANDS (FLANDERS AND HOLLAND) (5).

This course will be centered on the two great masters, Rubens and Rembrandt, with special stress on their different interpretations of the Baroque idea.

Mr. Sommer.

75. CONTEMPORARY ART (5).

Expressionism, abstract art, surrealism, and other developments in the twentieth century. Special study of such artists as Matisse and Picasso.

Spring quarter. Mr. Allcott.

Education 77. MATERIALS AND METHODS FOR THE TEACHING OF ART (5).

Two lecture and six studio hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Kachergis.

Education 78. PRACTICE TEACHING OF ART (5 or 10).

Spring quarter. Mr. Kachergis.

80. DRAWING (3). Prerequisites, Art 44, 45, 46 or equivalent.

Charcoal, pen and ink, water color, and gouache. Still life, landscape, and figure with emphasis on line, tone, and design.

Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Ness.

81. COMPOSITION (3). Prerequisites, Art 44, 45, 46.

Emphasis on form, structure, and representation.

Nine studio hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Ness.

82. PAINTING: LANDSCAPE AND FIGURE IN VARIOUS MEDIUMS (3).

Prerequisites, Art 44, 45, 46.

Special consideration for color, tone, and form.

Nine studio hours a week, spring quarter. Laboratory fee, \$12.00. Mr. Ness.

83. ART ANATOMY (3).

Eight studio hours a week. Laboratory fee, \$7.50. Mr. Howard.

84. SCULPTURE (3).

Experiments in the three-dimensional language of form, planes, and lines in space. Work in clay, wood, plastics, paper, papier-mâché, cloth, wire, and other materials.

Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Howard.

85. ADVERTISING ART (3). Prerequisites, Art 49, 54.

Finished layout and rendering techniques for illustrations, charts, three-dimensional display, exhibition, and other materials. Black and white, color; experimental work in various mediums.

Nine studio hours a week, spring quarter, 1952. Laboratory fee, \$10.00. Mr. Ness.

86. SCULPTURAL DESIGN (3).

Elements of sculpture, with form in nature taken as the point of departure.

Problems in the relationships of solids and their surrounding spaces.

Eight studio hours a week, spring quarter, 1952; winter quarter, 1953. Laboratory fee, \$7.50. Mr. Howard.

87. LIFE SCULPTURE (3).

Work from the living model. Consideration of anatomy, structure, and the possibilities of figure composition.

Eight studio hours a week, winter quarter, 1952; spring quarter, 1953. Laboratory fee, \$7.50. Mr. Howard.

93abc. ART COMMUNICATION (3; 1 each quarter).

The presentation of art ideas to the public through exhibitions, printed accounts, gallery and radio talks, and other activities.

Three laboratory hours a week. Laboratory fee, \$2.50 each quarter. Mr. Kachergis.

Courses for Graduates and Advanced Undergraduates

104. ADVANCED DRAWING AND PAINTING (3). Prerequisites, Art 80, 81, 82.

Water color, gouache, and oil. Consideration of line, tone, and form in representative works and abstract design.

Nine studio hours a week, spring quarter. Laboratory fee, \$15.00. Mr. Ness.

105. ADVANCED PAINTING AND PAINTING PROCESSES (3). Prerequisites, Art 80, 81, 82.

Water color, tempera, and oils. Preparation of canvas, gesso, and fresco panels.

Nine studio hours a week, fall quarter. Laboratory fee, \$15.00. Mr. Ness.

106. ADVANCED COMPOSITION, LINE DESIGN, FLAT PATTERN AND SPACE COMPOSITION (3). Prerequisites, Art 80, 81, 82.

Consideration of structure and form in abstracts from figure and landscape. Emphasis on development of personal methods.

Nine studio hours a week, winter quarter. Laboratory fee, \$15.00. Mr. Ness.

108. ILLUSTRATION (3).

Nine studio hours a week. Laboratory fee, \$10.00.

109. COSTUMED FIGURE (3).

Nine studio hours a week. Laboratory fee, \$10.00.

110. LIFE DRAWING (3). Prerequisite, consent of the instructor.

Work from the living model: pencil, chalk, crayon, ink. Consideration of anatomy and composition. May be taken three times for credit.

Nine studio hours a week, spring and winter quarters. Laboratory fee, \$7.50. Messrs. Kachergis, Howard.

111. SCULPTURAL DESIGN (3).

Eight studio hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Howard.

112. LIFE SCULPTURE (3).

Eight studio hours a week, spring quarter, 1953. Laboratory fee, \$10.00. Mr. Howard.

113. MATERIALS OF SCULPTURE (3).

Eight studio hours a week, winter and spring quarters, 1952; winter quarter, 1953. Laboratory fee, \$10.00. Mr. Howard.

120. ETCHING (3).

Nine studio hours a week. Laboratory fee, \$20.00. Mr. Kachergis.

121. LITHOGRAPHY (3).

Nine studio hours a week. Laboratory fee, \$20.00. Messrs. Kachergis, Ness.

122. SERIGRAPHY (3).

Nine studio hours a week. Laboratory fee, \$20.00. Messrs. Kachergis, Ness.

170. IMPRESSIONISM AND POSTIMPRESSIONISM (5).

This course, beginning with neoclassicism and romanticism, accents later nineteenth-century developments in France and such painters as Manet, Renoir, Cezanne, Van Gogh.

Winter quarter. Mr. Allcott.

171. FLORENTINE PAINTING (5). 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.

Fall quarter, 1951; spring quarter, 1953. Mr. Sommer.

174. FIFTEENTH-CENTURY PAINTING IN NORTHERN EUROPE (5). Prerequisite, Art 43.

After a brief discussion of the roots of naturalism in Flemish painting, the early masters from the Van Eycks to Breughel will be discussed.

Fall quarter, 1952. Mr. Sommer.

177. ORIGINS OF EUROPEAN ENGRAVING AND WOODCUT (5). Prerequisite, Art 42.

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.

Winter quarter, 1952. Mr. Sommer.

Courses for Graduates

240abc. PAINTING (6 each).

Eighteen studio hours a week. Laboratory fee, \$20.00. Messrs. Kachergis, Ness.

241abc. SCULPTURE (6 each).

Eighteen studio hours a week. Laboratory fee, \$20.00. Mr. Howard.

242abc. GRAPHIC ARTS (6 each).

Eighteen studio hours a week. Laboratory fee, \$20.00. Messrs. Kachergis, Ness.

243abc. GRAPHIC DESIGN (6 each).

Eighteen studio hours a week. Laboratory fee, \$20.00. Messrs. Allcott, Ness.

253. MODERN ARCHITECTURE (5).

Laboratory fee, \$20.00. Mr. Allcott.

261. LATE GOTHIC SCULPTURE (5). 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 (5).

Spring quarter. Mr. Allcott.

271. VENETIAN PAINTING (5). 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).

Mr. Sommer.

272. NORTHERN PAINTING (5). 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.

Spring quarter, 1952. Mr. Sommer.

274. BAROQUE PAINTING IN ITALY AND FRANCE (5). Prerequisites, Art 43 and 71.

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.

Winter quarter, 1953. Mr. Sommer.

301. SEMINAR COURSE (5).

A research course in a special field under the direction of a member of the department.

DEPARTMENT OF ASTRONOMY

Assistant Professor: *DOUGLAS DUKE

Instructor: W. D. BULLOCH

Technician: JOHN T. BRITAIN

In addition to those listed below, courses in such advanced astronomical fields as Astrophysics, Practical Astronomy, and Celestial Mechanics will be made available to students prepared for and interested in doing further work in astronomy.

In all courses use is made of the Morehead Planetarium and the fifteen-inch reflecting telescope.

31. DESCRIPTIVE ASTRONOMY (5).

An introductory, non-mathematical course to acquaint the student with the apparent face of the sky; the planets, stars, and other forms of material within the physical universe; and the appearance of these objects in the telescope.

Four lecture and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00. Laboratory, usually at night, to be arranged. Messrs. Duke and Bulloch.

32. GENERAL ASTRONOMY (5). Prerequisite, Astronomy 31.

A further, more detailed study of the facts of astronomy with attention to the problems of obtaining data and attaining solutions to outstanding astronomical problems.

Four lecture and two laboratory hours a week, winter and spring quarters. Laboratory fee, \$3.00. Laboratory, usually at night, to be arranged. Messrs. Duke and Bulloch.

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY

Professor: D. A. MACPHERSON

Associate Professors: W. J. CROMARTIE, G. P. MANIRE

Assistant Professor: W. R. STRAUGHN

Instructor: M. HUPPERT

Technicians: MARGARET E. LONG, NELL J. McNULTY, WALLINE C. STONE

Graduate Assistants: HENRY PHELPS, EDITH DUERR

For the S.B. degree with major in bacteriology, six courses (or thirty quarter hours) in bacteriology are required. One course in parasitology may be substituted for one of the required courses in bacteriology. In addition, six courses in allied sciences and three courses outside the Division of Natural Sciences are required. A suggested program of study follows:

* Resigned December 31, 1951.

FIRST YEAR

Chemistry 1-2-3 or 1-2-31	French or German 3-4 (or 1-2 if student lacks adequate preparation)
English 1, 2	Hygiene 11
Mathematics 7, 8, or R, 7x, 8	Physical Education 1, 2, 3
Social Science 1-2	

SECOND YEAR

English 3 and 4 or 5 or 6	Zoology 41, 42
French or German 21-22	Bacteriology 51
Chemistry 42	Physical Education 4, 5, 6
Botany 41	

THIRD YEAR

Chemistry 61, 62	Bacteriology 101, 104, 107
Physics 24-25	Elective, 2 courses

FOURTH YEAR

Bacteriology 112, 115 (Other courses in bacteriology or one in parasitology may be substituted with the consent of the department.)
 Elective, 6 full quarter courses, of which 3 must be outside the Division of Natural Sciences.

Course for Undergraduates

51. ELEMENTARY BACTERIOLOGY (6). Prerequisites, Chemistry 1-2-3 or 1-2-31 and one course in botany or zoology.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Straughn.

Courses for Graduates and Advanced Undergraduates

101. PATHOGENIC BACTERIOLOGY (8). Prerequisites, Bacteriology 51, Chemistry 1-2, 31, 42, and two courses in botany, physics, or zoology. Required for medical students.

This course includes a study of the important bacterial, rickettsial and virus diseases of man. Practical application of bacteriology to the diagnosis of disease is stressed.

Three lecture and nine laboratory hours a week, fall quarter. Laboratory fee for non-medical students, \$10.00. Messrs. MacPherson, Cromartie, Manire, Huppert.

104. IMMUNOLOGY (5). Prerequisite, Bacteriology 101.

Theories of infection and resistance; preparation and use of vaccines and immune sera; and the practical applications of serology to the diagnosis of disease.

Three lecture and five laboratory hours a week, winter quarter. Laboratory fee for non-medical students, \$10.00. Messrs. MacPherson, Cromartie.

106. MEDICAL MYCOLOGY (5). Prerequisites, Bacteriology 101 and 104 or equivalent; Botany 102 is advisable.

A course of lectures and laboratory work covering the higher fungi pathogenic for man. A detailed study is made of each of these pathogenic fungi, and correlated with the symptomatology, immunology, and laboratory diagnosis of the human mycotic diseases.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Huppert.

107. BACTERIOLOGY OF WATER AND FOODS (5). Prerequisite, Bacteriology 51.

The bacteriological examination of water and foods and the relation of bacteria, yeasts, and molds to the preservation and spoilage of foods are studied.

(Not offered in 1951-1952.)

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$6.00. Mr. Straughn.

112. BACTERIAL PHYSIOLOGY (6). Prerequisites, Bacteriology 51, Chemistry 31, 42, 61, 62, and preferably Biochemistry 101, 102.

This course is concerned with a study of the growth, respiration, nutrition, enzyme reactions, and effects of physical and chemical agents on bacteria.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$6.00. Mr. Straughn.

115, 116, 117. ADVANCED BACTERIOLOGY OR IMMUNOLOGY (5 each quarter). Prerequisites, Bacteriology 101 and 104 or equivalent.

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.

One conference and nine laboratory hours a week, fall, winter, or spring quarters. Laboratory fee, \$10.00. Staff.

120. VIROLOGY (6). Prerequisites, Bacteriology 101 and 104.

The nature of viruses and rickettsiae are studied; laboratory exercises include practical diagnostic methods and emphasize procedures for the examination and propagation of these agents.

Two lecture, one conference, and six laboratory hours a week, spring quarter. Laboratory fee, \$12.00. Mr. Manire.

132. PATHOGENIC BACTERIOLOGY (8). Required for dental students.

A course covering general bacteriological and serological techniques; common pathogenic microorganisms, with particular reference to the oral cavity; principles of sterilization, disinfection, and chemotherapeutic agents as well as theories of infection and resistance.

Five lecture and seven and one-half laboratory hours a week. Laboratory fee, \$10.00. Messrs. MacPherson, Manire, Straughn, Huppert.

151. GENERAL BACTERIOLOGY (6). Prerequisite, Botany 41 or Zoology 41. Open only to majors in science departments other than bacteriology.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Messrs. MacPherson, Straughn.

Courses for Graduates

301, 302, 303. RESEARCH IN BACTERIOLOGY, IMMUNOLOGY, OR VIROLOGY (5 or more each quarter). Prerequisite, permission of the department.

Opportunity is offered properly prepared students to undertake research in bacteriology, immunology, or virology.

Hours and credits to be arranged, throughout the year. Laboratory fee, to be determined. Messrs. MacPherson, Manire, Cromartie, Straughn.

**DEPARTMENT OF BIOLOGICAL CHEMISTRY
AND NUTRITION**

Professor: J. C. ANDREWS

Associate Professors: C. E. ANDERSON, J. L. IRVIN

Assistant Professor: J. E. WILSON

Instructor: M. K. BERKUT

Teaching Assistant: C. L. YARBRO

Assistants: JEAN ROTHERHAM, R. E. SIMPSON

Courses for Graduates and Advanced Undergraduates

101. GENERAL BIOLOGICAL CHEMISTRY (7). Prerequisites, Chemistry 42, 61 and 62 or equivalent.

A class and laboratory course for students of dentistry and for graduate students majoring in departments allied to Biological Chemistry. For such graduate students it may be counted as part of a minor in Biological Chemistry. The course covers briefly the chemistry and metabolism of proteins, fats and carbohydrates.

Three lecture and eight laboratory hours a week, fall quarter. Laboratory fee for non-dental students, \$10.00. Messrs. Andrews, Irvin, Anderson, Wilson.

102. BIOLOGICAL CHEMISTRY (7). (Previously listed as Biological Chemistry 101). Prerequisites, Chemistry 42, 61 and 62 or equivalent.

A class and laboratory course for students of medicine and for graduate students intending to major in Biological Chemistry or desiring a somewhat more detailed course than Biological Chemistry 101. This course, designed as preparation for Biological Chemistry 103, covers the fundamental chemistry of proteins, fats, carbohydrates, and electrolytes.

Three lecture and eight laboratory hours a week, winter quarter. Laboratory fee for non-medical students, \$10.00. Messrs. Andrews, Anderson, Irvin, Wilson.

103. BIOLOGICAL CHEMISTRY (5). (Previously listed as Biological Chemistry 102). Prerequisite, Biological Chemistry 102 or equivalent.

A class and laboratory course for medical students and for graduate students as described under Biological Chemistry 102. The course is a continuation of Biological Chemistry 102 and deals with the quantitative aspect of metabolism with respect to the major foodstuffs, minerals, and vitamins. The laboratory work includes gastric juice, blood, and urine analysis and introductory nutritional experiments.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$10.00. Messrs. Andrews, Anderson, Irvin, Wilson.

108. ELEMENTARY BIOLOGICAL CHEMISTRY AND NUTRITION (P.H. 148) (5). Prerequisites, Chemistry 61 and 62 or equivalent.

An introduction to the science of nutrition emphasizing its biochemical aspects and its experimental basis. Offered jointly by the departments of Biological Chemistry and Nutrition and of Public Health Nutrition. For students of the biological sciences such as zoology, parasitology, bacteriology, etc.

Five lectures a week, spring quarter. Messrs. Andrews and staff; Bryan and staff.

123. FOOD CHEMISTRY (6). (Previously listed as Biological Chemistry 103). Prerequisites, Biological Chemistry 101 or 102 and 103.

A course dealing with foodstuffs and the application of the basic principles of biological chemistry to the functional reactions which the foodstuffs undergo

in the nutrition of the animal body. The laboratory work includes both chemical analysis and nutritional experimentation on laboratory animals.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Messrs. Andrews, Anderson, Irvin, Wilson.

Courses for Graduates

201, 202, 203. ADVANCED BIOLOGICAL CHEMISTRY (6 each). Prerequisites, Biological Chemistry 101, 102 or equivalent.

Equivalent of six hours a week, fall, winter, and spring quarters. Laboratory fee, \$10.00 each quarter. Messrs. Andrews, Anderson, Irvin, Wilson.

211, 212, 213. SEMINAR (1 each). Prerequisites, Biological Chemistry 101, 102 or equivalent and a reading knowledge of German.

One hour a week, fall, winter, and spring quarters. Messrs. Andrews, Anderson, Irvin, Wilson.

301, 302, 303. RESEARCH IN BIOLOGICAL CHEMISTRY (6 each). Prerequisite, Biological Chemistry 201 or equivalent.

Equivalent of six hours a week, fall, winter, and spring quarters. Laboratory fee, \$10.00 each quarter. Messrs. Andrews, Anderson, Irvin, Wilson.

DEPARTMENT OF BOTANY

Professors: J. N. COUCH, *W. C. COKER, H. R. TOTTEN, J. E. ADAMS,
V. A. GREULACH

Assistant Professors: A. E. RADFORD, C. E. WOOD, JR.

Part-time Instructors: M. B. HUNEYCUTT, W. J. KOCH

Research Assistant: E. KATHLEEN GOLDIE-SMITH

Teaching Fellow: J. A. BOOLE

Curator: A. E. RADFORD

Graduate Assistants: J. G. HAESLOOP, R. M. JOHNS, S. P. JOHNSON,
ELIZABETH A. LEAGUE, C. E. MILLER

Undergraduate Assistant: BERNARD TAYLOR

For the A.B. with major in botany, six courses of the level of 41 or higher are required; one course in bacteriology may, with the consent of the department, be considered as part of the major. There are also required six courses in allied sciences—zoology, chemistry, geology, and physics. (Zoology 41 and Chemistry 1-2-3 or 1-2-31 must be included if not previously taken to satisfy General College requirements.) 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.

* Kenan Research Professor Emeritus.

Courses for Undergraduates

1. BOTANY (5). Freshman 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 a natural science.

The structure and functions of plants, their evolution, and a survey of fundamental biological facts and principles illustrated by plants and the relationship of these to man.

Four lecture and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Adams, Greulich, Wood; assistants.

41. GENERAL BOTANY (6). To be taken instead of Botany 1 by students intending to major in the natural sciences. Credit will not be given for both these courses.

An introduction to the structure, physiology, genetics, and classification of plants.

Four lecture and four laboratory or field hours a week, fall, winter, and spring quarters, with a special section in the spring quarter for pharmacy students. Laboratory fee, \$4.00. Messrs. Couch, Totten, Greulich, Radford; assistants.

42. CRYPTOGAMIC BOTANY (6). Prerequisite, Botany 1 or 41.

A continuation of General Botany, with a study of the structure, physiology, and classification of the lower plants.

Four lecture and four laboratory or field hours a week, winter quarter. Laboratory fee, \$4.00. Messrs. Couch, Radford; assistants.

43. SEED PLANTS (6). Prerequisite, Botany 1 or 41.

A continuation of General Botany, with more advanced work in the structure and classification of seed plants. Special attention to local flora, introduced ornamental plants, and propagation of cultivated plants.

Four lecture and four laboratory or field hours a week, spring quarter. Laboratory fee, \$4.00. Messrs. Totten, Radford.

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.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$6.00. Mr. Totten, assistants.

Courses for Graduates and Advanced Undergraduates

102. FUNGI (5). Prerequisite, Botany 42.

A survey of the fungal groups including the true Fungi, Myxomycetes, and Lichens.

(Not offered in 1951-1952.) *Two lecture and six laboratory hours a week, summer session. Laboratory fee, \$4.00.* Mr. Couch.

103. ALGAE (5). Prerequisite, Botany 42.

A survey of the Algae including both fresh-water and marine groups.

(1952-1953 and alternate years.) *Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$4.00.* Mr. Couch.

111, 112, 113. FUNGI: PHYCOMYCETES, ASCOMYCETES, BASIDIOMYCETES (5 each). Prerequisite, Botany 42.

Preparatory courses for research in Fungi; mycological foundation for work in plant pathology. Lectures and reports on the literature; collection and study of specimens.

Two lecture and six laboratory hours a week, 111, winter quarter; 112, spring quarter (1951-1952 and alternate years); 113, fall quarter. Laboratory fee, \$4.00 each quarter. Mr. Couch.

121. PLANT PHYSIOLOGY (5). Prerequisites, Botany 42 or 43, General Chemistry. Advised: Organic Chemistry.

A study of the life processes of plants, including cell physiology; water relations; photosynthesis; carbohydrate, fat, and nitrogen metabolism; mineral salt absorption and use; digestion; translocation; respiration.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$8.00. Mr. Greulich.

122. PLANT GROWTH (5). Prerequisite, Botany 121.

Nature of plant growth, growth substances, environmental factors affecting growth, growth correlations and periodicity, reproductive development, germination and dormancy, plant movements.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$8.00. Mr. Greulich.

141. FERNS (5). Prerequisites, Botany 41, 42 or equivalent.

A study of the structure, growth, and classification of the ferns.

(1951-1952 and alternate years.) Two lecture or report and six laboratory or field hours a week, fall quarter. Laboratory fee, \$4.00. Mr. Totten.

145. ADVANCED MACROPHARMACOGNOSY (5). Prerequisite, Botany 45.

Studies in the culture of crude drugs in the drug garden and in the harvesting and preparation of cultivated and wild crude drugs. Of special interest to graduate students in the School of Pharmacy, though open to others also.

Two lecture or report and six laboratory or field hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Totten.

147. ADVANCED MICROPHARMACOGNOSY (5). Prerequisite, Botany 45.

Advanced study of plant drugs; general methods in microanalysis of powdered drugs; preparation of materials for study; microanalysis of typical drugs and their adulterants and mixtures. Of special interest to graduate students in the School of Pharmacy, though open to others also.

Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Adams.

151, 153. ADVANCED TAXONOMY OF SEED PLANTS (5 each quarter). Prerequisite, Botany 43.

Advanced work in the collection, identification, preparation of herbarium specimens, and structural studies of the fall flowering (151) and the spring flowering (153) seed plants.

Two lecture or report and six laboratory or field hours a week, fall and spring quarters. Laboratory fee, \$4.00 each quarter. Messrs. Adams, Totten.

154 (5), 155 (6). DENDROLOGY. Prerequisite, Botany 43.

Course 154 is a taxonomic study of the woody plants based largely on bud, bark, and wood characteristics; 155 is based largely on foliage characters.

154, two lecture or report and six laboratory or field hours a week, winter quarter (1952-1953 and alternate years); 155, five lecture or report and fourteen laboratory or field hours a week in one term of the summer session. Laboratory fee, \$4.00. Mr. Totten.

156. PLANT GEOGRAPHY (3). Prerequisite, Botany 43.

Discussion of the principles and problems of the geographic distribution of plants.

(1952-1953 and alternate years.) *Three lecture or report hours a week, fall quarter.* Mr. Adams.

157. PLANT ANATOMY (5). Prerequisites, Botany 42 and 43.

Introduction to the development anatomy of vascular plants with consideration of the phylogenetic aspects of the subject; practice in methods of anatomical microtechnique.

Two lecture or report and six laboratory hours a week, winter quarter. Laboratory fee, \$4.00. Mr. Adams.

166. CYTOLOGY (5). Prerequisites, Botany 42 and 43.

The study of the structure and function of the cell.

Three lecture and four laboratory hours a week, winter quarter, 1951-1952; fall quarter, 1952-1953. Laboratory fee, \$4.00. Mr. Wood.

176. CYTOGENETICS (5). Prerequisites, Botany 41 and cytology or genetics.

Application of cytological and genetic techniques to problems in plant breeding and growth.

(Not offered in 1951-1952.) *Three lecture and four laboratory hours a week, spring quarter.* Laboratory fee, \$4.00. Mr. Wood.

Courses for Graduates

211, 212, 213. PROBLEMS IN FUNGI (5 each quarter). Prerequisite, consult the department.

Investigation of a research problem under the guidance of the instructor, preferably in Phycomycetes or Basidiomycetes and in the taxonomy, morphology, physiology, or genetics of fungi.

Fall, winter, and spring quarters. Laboratory fee, \$4.00 each quarter. Mr. Couch.

221, 222, 223. PROBLEMS IN PLANT PHYSIOLOGY (5 each quarter). Prerequisites, Botany 121 and 122.

Detailed consideration of specific topics and problems of plant physiology, including laboratory studies and extensive reading and discussion of original literature, the subjects covered each quarter to be selected after consultation between instructor and students.

Lecture, discussion, and laboratory hours to be arranged to suit the problems under consideration, fall, winter, or spring quarter. Laboratory fee, \$8.00 each quarter. Mr. Greulich.

251, 252, 253. MORPHOLOGY OF SEED PLANTS (5 or 2½ each quarter). Prerequisite, Plant Anatomy.

Advanced work in the embryology and anatomy of seed plants, including the preparation of material for the microscopic study of special problems.

Fall, winter, and spring quarters. Laboratory fee, \$4.00 a quarter. Mr. Adams.

276. CYTOTAXONOMY (3). Prerequisites, Botany 151 or 153 and cytology or genetics.

Seminar discussions on the relation of cytological and genetic data to problems in taxonomy and phylogeny.

(Not offered in 1951-1952.) *Three lecture or report hours a week, winter quarter.* Mr. Wood.

301, 302, 303. GRADUATE RESEARCH (5 or 2½ each quarter).

Original work on thesis problem under the guidance of an instructor, to be pursued in successive quarters as necessary.

Laboratory fee, \$4.00 a quarter. Messrs. Couch, Totten, Adams, Greulich, Wood.

BUSINESS ADMINISTRATION

(See Economics and Business Administration)

DEPARTMENT OF CHEMISTRY

Professors: ARTHUR ROE, *R. W. BOST, †F. K. CAMERON, J. T. DOBBINS,
H. D. CROCKFORD, E. C. MARKHAM, O. K. RICE, F. H. EDMISTER,
S. B. KNIGHT

Associate Professors: R. L. MCKEE, S. Y. TYREE

Assistant Professors: J. C. MORROW, III, C. R. WALTER, JR.

Instructor: KERRO KNOX

Teaching Fellows: R. H. BAILEY, W. P. CAVIN, C. L. HENRY

Graduate Assistants: B. J. ALLEY, G. D. APPLE, FRANCES BALCH, W. M. BALDWIN, EDWARD BERNASEK, W. S. BEST, DORIS CRAIG, C. M. CRAWFORD, G. M. GOODALE, J. R. GRAHAM, R. T. GUTHRIE, J. K. HUMMER, R. H. JOHNS, J. V. KILLHEFFER, A. L. MCPETERS, W. C. MATHIS, C. N. MULDROW, C. S. PATTERSON, N. M. RUGHEIMER, J. E. SANSING, R. B. SELIGMAN, P. T. VON BRAMER, R. H. WALLICK, W. A. WOOD

For the A.B. with a major in chemistry these are required: Chemistry 1-2-3, 31, 42, 61, 62, or Chemistry 1-2-31, 42, 51, 61, 62; and for either sequence two of the following: Chemistry 41, 63, 83. Six courses in other natural sciences and six courses in departments outside the Division of Natural Sciences are also required.

Those students who plan to teach in public high schools should read the statement on pages 161-62.

‡Bachelor of Science in Chemistry

FRESHMAN YEAR

Chemistry 1-2-31

or

§Chemistry 1-2-3, 31

English 1, 2, 3

Mathematics 7, 8

German 1

Hygiene 11

Physical Education

* Died September 22, 1951.

† Professor Emeritus.

‡ This course meets the requirements of the American Chemical Society for the training of professional chemists.

§ If the sequence, Chemistry 1-2-3, 31, is followed, Chemistry 31 will be delayed until summer school or the sophomore year, and Chemistry 51, which will be counted as one of the chemistry electives, will be delayed until the senior year. (See page 239, note II.)

SOPHOMORE YEAR

†Chemistry 51, 42, 41	English 4 or 5 or 6 or fine arts
Mathematics 31, 32, 33	option
Physics 24-25 or 34, 35	Physical Education
‡German 2-3-4	

JUNIOR YEAR

Chemistry 61, 62, 63	English 59
Chemistry 181, 182, 183	§Electives, 2 non-science courses

SENIOR YEAR

Botany 41 or Zoology 41	¶Non-science electives, 2 courses
‖Chemistry electives, 18 quarter hours	Free electives, 2 courses not in chem-
Physics elective, one of the following	istry
courses: Physics 52, 53, 54, 56, 61	

Courses for Undergraduates

1-2-3. GENERAL DESCRIPTIVE CHEMISTRY (15). Chemistry 31 may be substituted for Chemistry 3. Chemistry 3 may not be taken after credit has been received for Chemistry 31. No credit will be given for Chemistry 1-2 until either Chemistry 3 or Chemistry 31 is completed.

Three lecture and four laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00 a quarter. Messrs. Markham, Knight, Knox, Tyree, Morrow, Walter; assistants.

31. QUALITATIVE ANALYSIS (6). Prerequisite, Chemistry 1-2 or equivalent.

Three lecture and six laboratory hours a week, fall and spring quarters. Laboratory fee, \$10.00. Messrs. Dobbins, Markham, Knight; assistants.

41. ELEMENTARY QUANTITATIVE ANALYSIS: GRAVIMETRIC (6). Prerequisite, Chemistry 42.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Messrs. Dobbins, Knight; assistants.

42. ELEMENTARY QUANTITATIVE ANALYSIS: VOLUMETRIC (6). Prerequisite, Chemistry 31.

Three lecture and six laboratory hours a week, winter or spring quarter. Laboratory fee, \$10.00. Messrs. Dobbins, Knight; assistants.

51. INORGANIC CHEMISTRY (6). Prerequisites, Chemistry 1-2-3, 31, or 1-2-31, or equivalent.

Three lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Messrs. Knight, Tyree; assistants.

† If the sequence, Chemistry 1-2-3, 31, is followed, Chemistry 31 will be delayed until summer school or the sophomore year, and Chemistry 51, which will be counted as one of the chemistry electives, will be delayed until the senior year. (See below, note ‖.)

‡ It is understood that the language requirement of the General College must be satisfied.

§ Select two courses from the following: Economics 31-32, 41, 61; History 48, 49, 71, 72, 134, 135, 136, 167, 168, 170.

¶ Also, select two from the following: Political Science 41, 42, 52, 101, 142; Sociology 51, 52, 167.

In special cases, subject to approval, two courses in a modern foreign language may be substituted for two on the foregoing lists.

‖ Not more than one and a half courses may be taken in any one of the five divisions of chemistry: inorganic, analytical, organic, physical, and industrial.

§ Select two courses from the following: Economics 31-32, 41, 61; History 48, 49, 71, 72, 134, 135, 136, 167, 168, 170.

61, 62, 63. ORGANIC CHEMISTRY (6 each). Prerequisite, Chemistry 31.
Three lecture and six laboratory hours a week, 61, fall and winter quarters; 62, winter and spring quarters; 63, spring quarter. Laboratory fee, \$10.00 a quarter. Messrs. Roe, McKee, Walter.

83. PHYSICAL CHEMISTRY FOR PREMEDICAL STUDENTS (6). Prerequisites, Chemistry 31, 42, 62, Mathematics 7, 8, and one year of college physics. Does not carry credit toward S.B. in Chemistry.

Designed for A.B. students or students taking premedical, pharmaceutical, or biological work.

Five lecture and two laboratory hours a week, fall and spring quarters. Laboratory fee, \$3.00. Messrs. Crockford, Rice, Morrow.

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 quarter. Laboratory fee, to be determined by consultation with adviser or head of the department. Any member of the departmental staff.

102. CHEMICAL LITERATURE (3). Prerequisite, Chemistry 63.

Three hours a week, spring quarter. Mr. Walter.

143. THEORETICAL ANALYTICAL CHEMISTRY (6). Prerequisites, Chemistry 31, 41, 42.

Six hours a week, winter quarter. Mr. Dobbins.

145. INSTRUMENTAL ANALYSIS. ELECTRICAL METHODS (3). Prerequisites, Chemistry 41, 42.

One lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Messrs. Markham, Knight.

146. INSTRUMENTAL ANALYSIS. OPTICAL METHODS (3). Prerequisites, Chemistry 41, 42.

One lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Markham.

147. QUANTITATIVE ORGANIC MICROANALYSIS (3). Prerequisites, Chemistry 41, 42, 63.

Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Markham.

148. INORGANIC MICROANALYSIS (3). Prerequisites, Chemistry 41, 42.
Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Markham.

151, 152, 153. ADVANCED INORGANIC CHEMISTRY (3 each). Prerequisites, Chemistry 31, 42.

Three hours a week, fall, winter, and spring quarters. Mr. Edmister.

154. INORGANIC PREPARATIONS (3). Prerequisites, Chemistry 41, 42, 51, 63, or their equivalent.

Six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Tyree.

163. QUALITATIVE ORGANIC ANALYSIS (6). Prerequisites, Chemistry 61, 62, 63.

Three lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Messrs. Roe, McKee.

164. QUANTITATIVE ANALYSIS OF FUNCTIONAL GROUPS (3). Prerequisite, Chemistry 163.

Six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Messrs. Roe, McKee.

165. ORGANIC COMBUSTIONS (3). Prerequisite, Chemistry 163.

Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Roe.

166a, 167a, 168a. ADVANCED ORGANIC CHEMISTRY I (3 each). Prerequisite or corequisite, Chemistry 163.

Three hours a week, fall, winter, and spring quarters. Mr. Roe.

166b, 167b, 168b. ADVANCED ORGANIC CHEMISTRY II (3 each). Prerequisite or corequisite, Chemistry 163.

Three hours a week, fall, winter, and spring quarters. Mr. Roe.

166c, 167c, 168c. ADVANCED ORGANIC PREPARATIONS (3 each). Prerequisite or corequisite, Chemistry 163.

Six laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$10.00 a quarter. Mr. Roe.

181, 182, 183. PHYSICAL CHEMISTRY (6 each). Prerequisites, Chemistry 31, 41, 42; prerequisites or corequisites, Chemistry 61, 62, 63; prerequisite, satisfactory work in physics and in integral and differential calculus.

Three lecture and six laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$10.00 a quarter. Messrs. Crockford, Rice, Morrow.

184, 185, 186. CHEMICAL THERMODYNAMICS (3 each). Prerequisites, Chemistry, 181, 182, 183.

(1952-1953 and alternate years.) Three hours a week, fall, winter, and spring quarters. Messrs. Crockford, Rice, Morrow.

187, 188, 189. ADVANCED PHYSICAL CHEMISTRY (3 each). Prerequisites, Chemistry 181, 182, 183.

Three hours a week, fall, winter, and spring quarters. Mr. Crockford.

191, 192, 193. INDUSTRIAL CHEMISTRY (3 each). Prerequisites, Chemistry 61, 62, 63.

Three hours a week, fall, winter, and spring quarters. Mr. Walter.

Courses for Graduates

231. DETECTION OF POISONS (6). Prerequisites, Chemistry 31, 42, 61, 62, 63. *(1951-1952 and alternate years.) Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Dobbins.*

241, 242, 243. SEMINAR IN ANALYTICAL CHEMISTRY (3 each). Prerequisite or corequisite, Chemistry 143.

(1952-1953 and alternate years.) Three hours a week, fall, winter, and spring quarters. Mr. Dobbins.

244, 245, 246. SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (3 each). Prerequisites, Chemistry 143, 183.

(1951-1952 and alternate years.) Three hours a week, fall, winter, and spring quarters. Messrs. Markham, Knight.

251. SEMINAR IN INORGANIC CHEMISTRY (3). Prerequisite, Chemistry 151. *Three hours a week, fall quarter.* Mr. Edmister.
- 258, 259. HISTORY OF CHEMISTRY (3 each). Prerequisites, Chemistry 31, 61, 62. *Three hours a week, winter and spring quarters.* Mr. Edmister.
- 261, 262, 263. SYNTHETIC ORGANIC COMPOUNDS (3 each). Prerequisites, Chemistry 166a, 167a, 168a or Chemistry 166b, 167b, 168b. (1952-1953 and alternate years.) *Three hours, or equivalent, a week, fall, winter, and spring quarters.* Mr. Roe.
- 264, 265, 266. SEMINAR IN ORGANIC CHEMISTRY (3 each). Prerequisites, Chemistry 166a, 167a, 168a or Chemistry 166b, 167b, 168b. (1951-1952 and alternate years.) *Three hours, or equivalent, a week, fall, winter, and spring quarters.* Messrs. Roe, McKee.
267. ORGANIC CHEMISTRY (3 to 6). Prerequisite, to be determined by consultation with professor in charge. *Three to six hours a week, every quarter. Laboratory fee, to be determined by consultation with professor in charge.* Messrs. Roe, McKee.
281. ATOMIC AND MOLECULAR CHEMISTRY (3). Prerequisites, Chemistry 181, 182, 183. *Three hours a week, fall quarter.* Mr. Rice.
- 282, 283. CHEMICAL BINDING AND VALENCE (3 each). Prerequisite, Chemistry 281. (1952-1953 and alternate years.) *Three hours a week, winter and spring quarters.* Mr. Rice.
- 284, 285. STATISTICAL PROBLEMS IN CHEMISTRY (3 each). Prerequisite, Chemistry 281. (1951-1952 and alternate years.) *Three hours a week, winter and spring quarters.* Mr. Rice.
- 286, 287, 288. SEMINAR IN PHYSICAL CHEMISTRY (3 each). Prerequisites, Chemistry 181, 182, 183. *Three hours a week, fall, winter, and spring quarters.* Messrs. Crockford, Rice.

RESEARCH COURSES.

Laboratory fee, \$10.00 a course.

341. ANALYTICAL CHEMISTRY (6). Messrs. Dobbins, Markham, Knight.
351. INORGANIC CHEMISTRY (6). Messrs. Edmister, Tyree.
361. ORGANIC CHEMISTRY (6). Messrs. Roe, McKee, Walter.
381. PHYSICAL CHEMISTRY (6). Messrs. Crockford, Rice, Morrow.

DEPARTMENT OF CITY AND REGIONAL PLANNING

Professors: J. A. PARKER, H. G. BAITY

Associate Professors: E. T. CHANLETT, F. S. CHAPIN, JR., P. P. GREEN,
C. G. SHEPS, J. M. WEBB

Assistant Professors: F. N. CLEAVELAND, P. H. STEWART

In addition to the above, the following members of the faculty of North Carolina State College contribute to the program of the department:

Professor H. Leipziger-Pearce (School of Design)

Professor W. F. Babcock (School of Engineering)

The work offered in the Department of City and Regional Planning leads to the degree of Master of Regional Planning. The normal course includes five quarters of residence study, an additional quarter of internship, and a thesis.

The following courses are required of all students enrolled in the department: Planning 127, 161, 170 or 191, 209, 220, 221, 222, 223, 227, 230, 235, 240, and 320. In addition to these requirements four electives are selected from one of the three departments of Economics, Political Science, or Sociology. Lists of courses approved for this curriculum in the three departments will be found on page 246. Planning 215 is recommended for students whose background does not include design training. It may be substituted for an elective.

Each applicant is required to submit a transcript of his undergraduate record and to take a comprehensive aptitude test, the specific form of which is prescribed by the Graduate School in consultation with the department. Undergraduates who expect at a later time to take up the professional study of city and regional planning are advised to specialize in one of the following disciplines during the period of undergraduate training: architecture, economics, engineering, geography, history, landscape architecture, political science, or sociology. Courses in surveying and mechanical drawing, while not prerequisites, are recommended as valuable aids to students in the planning field.

Undergraduates who contemplate entering the department upon graduation are urged to consult with the department with regard to the planning of their undergraduate programs.

Courses for Graduates and Advanced Undergraduates**127. TRAFFIC AND TRANSPORTATION (5).**

Study of problems of traffic, transportation, and circulation as they relate to the planning program. The course deals with major problems involved in highway, airport, and railroad location; with terminal facilities; with traffic and park-

ing surveys and methods of traffic control; and with broad design requirements for mass transportation facilities.

Spring quarter. Mr. Babcock.

161. MUNICIPAL FACILITIES AND MANAGEMENT (5).

Study of the broader aspects of public health sanitation and municipal engineering as they relate to the planning, development, and administration of communities.

Fall quarter. Messrs. Baity, Sheps, Chanlett.

170. ECONOMIC STATISTICS (Economics 170) (5). Prerequisites, Mathematics 7, 8 or 10, Economics 31-32 or equivalent.

This course provides training in the important process of statistical technique used by economists and business men. Topics covered include methods of sampling, collection of data, tabular and graphic presentation, frequency distributions, tests of significance, analysis of time series, and simple correlation.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Cowden, Pfouts.

191. SOCIAL STATISTICS (Sociology 191) (5).

The topics usually covered in an elementary statistics course are treated with emphasis on those best adapted to sociological research. With laboratory materials of a sociological nature, the student in learning the processes of statistical analysis may become familiar with sources, interpretation, and presentation of social data.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$2.00. Mr. Price.

Courses for Graduates

209. PLANNING AND GOVERNMENT (Political Science 209) (5).

This course is concerned with the evolution of planning in the United States, the activities of planning agencies, planning problems at various levels of American government, and planning activities in other countries. Special emphasis is given to planning as a governmental process.

Winter quarter. Mr. Cleaveland.

215. THEORY OF PLANNING DESIGN (5).

Study of urban conditions and trends and theories of urban form.

Fall quarter. Mr. Parker.

220. SITE PLANNING (5).

An introduction to principles of site planning and construction with particular reference to contemporary land subdivision design practice. Instruction covers grading, drainage, roadways, walks, estimation of construction and development costs and their relation to design and layout.

Fall quarter. Mr. Webb.

221. THE MODEL COMMUNITY (5).

The study of present-day city planning design concepts and criteria as applied to the planning of new communities. The course covers the development of the program for a model town; an analysis of basic factors of population, economy, and land use; and the development of the physical plan for the town.

Winter quarter. Mr. Webb.

222. URBAN PLANNING PRACTICE (5).

The study of an existing community. The student conducts a survey of existing social, economic, and physical conditions, determines the needs of the area in terms of physical development, formulates proposals for alternative solutions of

problems, and prepares a program for the encouragement of citizen participation and governmental support for planning.

Spring quarter. Staff.

223. **ADVANCED PLANNING DESIGN (5)**. Prerequisite, Planning 220.

Studies of specific problems and areas in urban centers such as residential, commercial or industrial slums, outlying and central business areas, industrial improvement districts, etc. Areas are selected and studied in the field; essential social, economic, and physical characteristics and plan requirements are determined; and a redevelopment or improvement program is developed on the basis of the student's design.

Winter quarter. Messrs. Chapin and Parker.

227. **URBAN REDEVELOPMENT (5)**.

An introduction to the social, economic, and physical bases of urban redevelopment; a study of the organization and administration of federal, state, and local redevelopment programs; and an analysis and evaluation of redevelopment study procedures.

Fall quarter. Mr. Chapin.

230. **PLANNING LEGISLATION AND ADMINISTRATION (5)**.

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.

Winter quarter. Mr. Green.

235. **URBAN PLANNING METHODS AND TECHNIQUES (5)**.

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.

Winter quarter. Mr. Chapin.

240. **PLANNING INTERNSHIP (5)**. Prerequisite, six required courses in the City and Regional Planning curriculum.

One quarter's work in an approved planning office or agency under competent supervision. During this period the student is required to submit monthly reports to the head of the department. This course constitutes a full load for one quarter.

Any quarter. Mr. Parker.

310. **PLANNING RESEARCH SEMINAR (5)**.

Field research and study on selected planning problems under special guidance of a member of the staff.

Any quarter. Professors in the Department of City and Regional Planning.

320. **THESIS (5)**.

Study and presentation of a planning project selected by the student and approved by the department. Credit is given for this course upon acceptance of the thesis.

Any quarter. Professors in the Department of City and Regional Planning.

**The Following List is Illustrative of the Courses From Which
Departmental Electives Are Chosen**

Department of Economics

- 111. International Resources and National Policy
- 124. Principles of Marketing
- 131. Economic Theory
- 135. Economic History
- 141. Public Finance
- 143. Problems in State and Local Finance
- 151. Transportation
- 153. Public Utilities
- 168. Sales and Market Analysis
- 341. Research Course in Public Finance

Department of Political Science

- 101. Public Administration
- 132. Municipal Government in the United States
- 133. Municipal Administration in the United States
- 181. Recent National Policy and Administration
- 191. Public Finance
- 193. Problems in State and Local Finance
- 210. Public Administration of Resources
- 225. Administrative Organization and Management
- 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
- 174. Community Organization
- 180. State and Regional Problems 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.

Associate Professor: A. I. SUSKIN

Part-time Instructors: ANNA L. MOTTO, F. F. SPRINGER-MILLER, H. W. TRAUB, J. W. ZARKER

Teaching Fellow: H. H. HARPER, JR.

Graduate Assistant: ANN F. DEAGON

GREEK

Students interested in having their undergraduate major in Greek should consult the department in the last quarter of their sophomore year. Six courses are required in addition to Greek 4. For Greek as satisfying the language requirements for the A.B. degree see p. 138.

Courses for Undergraduates

1-2. ELEMENTARY GREEK (5 each).

Fall and winter quarters. Messrs. Epps, Harper.

NOTE: Two quarters of Greek or Latin or mathematics must be taken by each candidate for the degree of A.B.

*3-4. INTERMEDIATE GREEK (5 each).

Spring and fall quarters. Mr. Epps.

NOTE: Majors in religion may substitute 3N (Elementary New Testament).

14. ELEMENTARY GREEK FOR GRADUATE STUDENTS (No credit).

Spring quarter. Mr. Epps.

*21-22. ADVANCED GREEK (5 each). Prerequisite, Greek 4 or equivalent.

Winter and spring quarters. Mr. Epps.

NOTE: Students so desiring may substitute Greek 88 for Greek 21 or 22.

80. HOMER, ILIAD (5). Prerequisite, Greek 22 or equivalent.

One quarter. Mr. Epps.

82. PLATO (5). Prerequisite, Greek 22 or equivalent.

One quarter. Mr. Epps.

88. GREEK NEW TESTAMENT (5). Prerequisite, Greek 4 or equivalent.

Winter quarter. Mr. Epps.

Courses for Graduates and Advanced Undergraduates

112. HOMER, ODYSSEY OR ILIAD (5). Prerequisite, Greek 22 or equivalent.

One quarter. Mr. Epps.

153. GREEK TRAGEDY (in Greek) (5). Prerequisite, Greek 22 or equivalent.

Spring quarter. Mr. Epps.

154. GREEK COMEDY (in Greek) (5). Prerequisite, Greek 22 or equivalent.

One quarter. Mr. Epps.

* Either of these courses may be taken separately for elective credit.

158. GREEK NEW TESTAMENT (5). Prerequisite, Greek 22.
Winter quarter. Mr. Epps.

171. GREEK HISTORIANS (5). Prerequisite, Greek 22 or equivalent.
Spring quarter. Mr. Epps.

181. GREEK ORATORS (5). Prerequisite, Greek 22 or equivalent.
One quarter. Mr. Epps.

182. PLATO (5). Prerequisite, Greek 22 or equivalent.
Fall quarter. Mr. Epps.

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 quarter of their sophomore year. Six courses are required in addition to Latin 22. For Latin as satisfying the language requirements for the A.B. degree see p. 138.

Courses for Undergraduates

1-2. ELEMENTARY LATIN (5 each).

1: *Fall, winter, and spring quarters.* 2: *Fall, winter, and spring quarters.* Messrs. Harper, Springer-Miller, Suskin, Traub, Zarker, Miss Motto.

NOTE: Two quarters of Greek or Latin or mathematics must be taken by each candidate for the degree of A.B.

*3-4. INTERMEDIATE LATIN (5 each).

Freshman and sophomore elective.

3: *Fall, winter, and spring quarters.* 4: *Fall, winter, and spring quarters.* Messrs. Allen, Harper, Suskin, Miss Motto.

NOTE: Two quarters of Greek or Latin or mathematics must be taken by each candidate for the degree of A.B.

14. RAPID READING IN LATIN (5).

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 quarter. Mr. Allen.

21-22. ADVANCED LATIN (5 each). Prerequisite, three or four units of high school Latin, or Latin 3-4.

Freshman and sophomore elective.

Selections from Latin prose, chiefly Livy and Horace.

21: *Fall and spring quarters.* 22: *Winter quarter.* Messrs. Allen, Suskin.

51. CICERO'S LETTERS (5). Prerequisite, Latin 22.

Fall quarter. Mr. Allen.

52. ROMAN SATIRE (5). Prerequisite, Latin 22.

Winter quarter. Mr. Allen.

* Either of these courses may be taken separately for elective credit.

53. LATIN LYRIC POETRY (5). Prerequisite, Latin 22.

Spring quarter. Mr. Suskin.

71. COURSE FOR TEACHERS (5). Prerequisite, Latin 22.

On application. Mr. Ullman.

NOTE: Courses in Directed Teaching of High School Latin and in Materials and Methods of Teaching High School Latin will be found under the School of Education.

Courses for Graduates and Advanced Undergraduates

101. ROMAN HISTORICAL LITERATURE, TACITUS (5). Prerequisite, Latin 22.

One quarter. Mr. Allen.

102. ROMAN DRAMATIC LITERATURE, PLAUTUS AND TERENCE (5). Prerequisite, Latin 22.

Fall quarter. Mr. Ullman.

103. PROSE WRITINGS OF THE REPUBLIC (5). Prerequisite, Latin 22.

One quarter. Mr. Suskin.

104. CICERO: POLITICAL CAREER AND WORKS (5). Prerequisite, Latin 22.

The course will deal with Cicero's *Letters* or *Orations*, as determined by the needs of the class.

One quarter. Mr. Allen.

105. THE SATIRES OF JUVENAL (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

106. LUCRETIUS (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

107. LATIN COMPOSITION (5). Prerequisite, Latin 22.

Winter quarter. Mr. Allen.

108. MARTIAL (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

109. CICERO: PHILOSOPHICAL WORKS (5). Prerequisite, Latin 22.

Spring quarter. Mr. Ullman.

110. MEDIEVAL LATIN (5). Prerequisite, Latin 22.

Reading of selections from representative writers in prose and poetry.

Winter quarter. Mr. Ullman.

112. ROMAN ELEGY (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

113. LIVY (5). Prerequisite, Latin 22.

One quarter. Mr. Suskin.

117. VIRGIL (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

121. PETRONIUS (5).

The relation of Petronius to satire and to development of the novel; introduction to Vulgar Latin.

One quarter. Mr. Ullman.

122. LUCAN (5). Prerequisite, Latin 22.

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 quarter. Mr. Allen.

131. LATIN WRITERS OF THE ITALIAN RENAISSANCE (5). Prerequisite, Latin 22.

Reading of selections beginning with Petrarch, with some consideration of the origin of the Renaissance.

Fall quarter. Mr. Ullman.

Courses for Graduates

202. LATIN EPIGRAPHY (5).

One quarter. Mr. Ullman.

203. LATIN PALEOGRAPHY (5).

One quarter. Mr. Ullman.

301-302-303. LATIN SEMINAR (5 each).

Fall, winter, and spring quarters. Mr. Ullman.

310. THESIS COURSE (5).

Any quarter. Mr. Ullman.

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, art, 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 61 and 62 may be substituted for English 3 and 4 by students taking a modern foreign language. See also under Comparative Literature.

Courses for Undergraduates

61. GREEK LITERATURE (5).

A survey of the major authors and their contributions to modern thought and literary forms.

Fall and spring quarters. Messrs. Epps and Allen.

62. LATIN LITERATURE (5).

A survey of the major authors and their contributions to modern thought and literary forms.

Winter quarter. Mr. Suskin.

75. GREEK CIVILIZATION (5).

The achievements of the ancient Greeks and their contributions to the modern world in art, architecture, medicine, science, politics, education, theater, religion, etc.

Winter quarter. Mr. Harland.

76. ROMAN CIVILIZATION (5).

Roman public and private life, manners, and ideals; buildings, living conditions, commerce, religion, government, art, etc.

Spring quarter. Mr. Allen.

77. GREEK MYTHOLOGY (5).

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.

One quarter. Mr. Harland.

85. ARCHAEOLOGY AND THE BIBLE (5).

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 quarter. Mr. Harland.

91. ARCHAEOLOGY OF THE NEAR EAST (5).

The art and architecture of Egypt, Mesopotamia, and the rest of the ancient Near East.

Fall quarter. Mr. Harland.

92. GREEK ARCHAEOLOGY (5).

The historical development of the art of Greece from the Bronze Age through the historical period. Greek architecture, painting, and the other arts.

Winter quarter. Mr. Harland.

93. GREEK SCULPTURE (5).

The development of Greek sculpture as one phase of the civilization of the ancient Hellenes.

Spring quarter. Mr. Harland.

95. ANCIENT ARCHITECTURE (5).

The architecture of Egypt, Mesopotamia, Greece, and Rome, with emphasis on the contributions made by these lands to modern architecture.

Spring quarter. Mr. Harland.

97. ROMAN ART (5).

The arts of Rome, particularly architecture, sculpture, and painting, preceded by a survey of Etruscan and Hellenic art and their influence on Rome.

Spring quarter. Mr. Harland.

Courses for Graduates and Advanced Undergraduates

103. GREEK AND ROMAN EPIC (5).

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 quarter. Mr. Allen.

107. GREEK DRAMATIC LITERATURE (5).

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 quarter. Mr. Allen.

109. GREEK AND ROMAN HISTORICAL LITERATURE (History 109) (5).
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.

Winter quarter. Mr. Allen.

114. GREEK AND ROMAN COMEDY (5).

One quarter. Messrs. Epps, Allen.

176. ROMAN CIVILIZATION (5).

One quarter. Mr. Allen.

193. HELLENIC ART (5). Prerequisite, Archaeology 92 or 93, or Greek 75, or Greek history.

One quarter, on application. Mr. Harland.

195. THE AEGEAN CIVILIZATION (5). Prerequisite, Archaeology 91, or ancient history.

One quarter, on application. Mr. Harland.

CURRICULUM IN COMPARATIVE LINGUISTICS

DEAN W. W. PIERSON, *Chairman*

Professors: G. S. LANE, *Secretary*, U. T. HOLMES, *N. E. ELIASON, R. W. LINKER, J. E. KELLER

This curriculum intends to organize the facilities for the study of comparative linguistics which are already offered by the various departments of the University in the form of historical and comparative grammar courses; and, in addition, it fills certain gaps which would otherwise obviously present themselves to a graduate student who might desire to devote himself seriously to any particular branch of Indo-European linguistics. Under special circumstances, after consultation with the secretary of the curriculum, an undergraduate major is allowed.

Students with an undergraduate major in any department of language and literature are eligible to take work in this curriculum with a view to becoming candidates for higher degrees. A reading knowledge of French and German and one classical language is required of candidates for higher degrees in comparative linguistics. From both a cultural and practical viewpoint, it is advisable that a student should not detach his linguistic studies too completely from those in literature.

The curriculum draws upon the library facilities, as well as the faculties, of the departments in language of the University. These include the essential handbooks, monographs, and linguistic periodicals of the special fields. In addition, through recent appropriations

* Absent on leave, 1951-1952.

for linguistics, fundamental works in Sanskrit, Slavic, and the more general aspects of Indo-European comparative grammar have been acquired.

Attention is called to courses in paleography and epigraphy in the Department of Classics for which credit in linguistics may be given under particular circumstances.

General

101. INTRODUCTION TO THE STUDY OF LANGUAGE (5). Prerequisites, one classical language and one modern language.

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 quarter. Mr. Lane.

105. CELTIC: OLD IRISH (5). See under Romance Languages (French).

Winter quarter. Mr. Holmes.

106. CELTIC: WELSH (5).

One quarter, on demand. Mr. Holmes.

111, 112, 113. SANSKRIT (5 each).

(1951-1952 and alternate years.) *Fall, winter, and spring quarters.* Mr. Lane.

201, 202, 203. ADVANCED SANSKRIT (5 each).

Through the year, on demand. Mr. Lane.

204. COMPARATIVE GRAMMAR OF GREEK AND LATIN (5).

(1951-1952 and alternate years.) *Five hours a week, winter quarter.* Mr. Lane.

206. LITHUANIAN (5).

Winter quarter, on demand. Mr. Lane.

207. CHURCH SLAVIC (5).

Spring quarter, on demand. Mr. Lane.

361, 362, 363. SEMINAR IN LINGUISTICS (5 each).

Through the year. Staff.

English Linguistics

101. OLD ENGLISH GRAMMAR AND READING (5).

Fall quarter. Mr. Eliason.

201. BEOWULF (5).

Winter quarter. Mr. Eliason.

202. MIDDLE ENGLISH (5).

Spring quarter. Mr. Pratt.

204. HISTORY OF THE ENGLISH LANGUAGE (5). Prerequisite, English 101 or permission of the instructor.

Spring quarter. Mr. Eliason.

Germanic Linguistics

161. HISTORY OF THE GERMAN LANGUAGE (German 161) (5).
Fall quarter, on demand. Mr. Lane.
221. GOTHIC (German 221) (5).
Fall quarter. Mr. Lane.
222. OLD HIGH GERMAN (German 222) (5).
Winter quarter. Mr. Lane.
223. COMPARATIVE GERMANIC GRAMMAR (German 223) (5).
Spring quarter, on demand. Mr. Lane.
232. OLD SAXON (German 232) (5).
One quarter, on demand. Mr. Lane.
- 233, 234. OLD NORSE (German 233, 234) (5 each).
Two quarters, on demand. Mr. Lane.
- 235, 236. MIDDLE HIGH GERMAN (German 235, 236) (5 each).
Two quarters, on demand. Mr. Jente.

Romance Linguistics

126. HISTORY OF THE FRENCH LANGUAGE (5). Prerequisite, French 72.
Winter quarter. Messrs. Holmes, Linker.
220. VULGAR LATIN (5).
Spring quarter. Mr. Holmes.
- 221, 222, 223. OLD FRENCH (5 each).
Fall, winter, and spring quarters. Mr. Holmes.
225. PROVENÇAL (5).
Spring quarter. Mr. Holmes.
221. OLD ITALIAN (5).
Fall quarter. Mr. Holmes.
- 221, 222. OLD SPANISH (5 each).
Fall and winter quarters. Mr. Keller.
221. OLD PORTUGUESE (5).
Fall quarter. Mr. Holmes.
370. MINOR ROMANCE TONGUES (5).
Spring quarter, on demand. Mr. Holmes.

DEPARTMENT OF COMPARATIVE LITERATURE

Professors: H. R. HUSE, *Acting Chairman*, U. T. HOLMES, JR., C. P. LYONS, A. C. HOWELL, R. P. BOND, S. A. STOUDEMIRE, W. L. WILEY, P. H. EPPS, W. P. FRIEDERICH, WALTER ALLEN, JR., R. A. PRATT, R. W. LINKER

Associate Professors: A. I. SUSKIN, KAI JURGENSEN

Assistant Professor: J. E. KELLER

An undergraduate major in the department consists normally of six to eight courses, two of which must be in the classics. Students are encouraged to substitute courses in the original languages whenever possible.

Literature in English Translation

Courses for Undergraduates

61. GREEK LITERATURE (5).

A survey of the major authors and their contributions to modern thought and literary forms.

Fall and spring quarters. Messrs. Epps, Allen.

62. LATIN LITERATURE (5).

A survey of the major authors and their contributions to modern thought and literary forms.

Winter quarter. Mr. Suskin.

65. ORIENTAL LITERATURE (5).

A rapid survey of interesting features in the literature, language, and civilization of China, Japan, India, and Arabia.

Spring quarter. Mr. Holmes.

87. LITERARY ASPECTS OF THE BIBLE (Religion 87) (5).

The Old and New Testaments will be taken up in alternate years.

Spring quarter. Mr. Howell.

Courses for Graduates and Advanced Undergraduates

117. CERVANTES (5).

A study of Cervantes' *Don Quixote* and the *Exemplary Novels*.

Winter quarter. Mr. Stoudemire.

135. FRENCH CLASSICISM (5).

A survey of the origins of classicism in France. The plays of Corneille, Molière, Racine, and their contemporaries. The decline of classicism.

Spring quarter. Mr. Wiley.

137. SURVEY OF GERMAN LITERATURE (5).

German literature of the past 1000 years, with special emphasis on the periods around 1200, 1800, and 1920.

Fall quarter. Mr. Friederich.

155. GOETHE (5).

Goethe's life and works placed against a background of European classicism and romanticism.

Spring quarter. Mr. Friederich.

156. DANTE (5).

The beginnings of Italian literature. The *Vita Nuova* and *The Divine Comedy*.

Winter quarter. Mr. Huse.

Comparative Courses

Courses for Graduates and Advanced Undergraduates

103. GREEK AND ROMAN EPIC (5).

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 quarter. Mr. Allen.

107. GREEK DRAMATIC LITERATURE (5).

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 quarter. Mr. Allen.

109. GREEK AND ROMAN HISTORICAL LITERATURE (5).

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.

Winter quarter. Mr. Allen.

162. MODERN CONTINENTAL DRAMA (Dramatic Art 162) (5).

A study of representative plays of the modern period from Ibsen to Giraudoux.

Winter quarter. Mr. Jurgensen.

163. LITERARY CRITICISM (5).

The principles which have animated classical, romantic, and realistic literature.

Fall quarter. Mr. Bond.

170. THE MIDDLE AGES (5).

A survey of Medieval France, England, Germany, Spain, Italy, and Byzantium, from the viewpoints of civilization, art, and literature.

Spring quarter. Mr. Linker.

173. MEDIEVAL ROMANCE (5).

A survey of romance materials in English literature, with particular attention to the Arthurian tradition.

(Not offered in 1951-1952.) Mr. Pratt.

175. RENAISSANCE AND BAROQUE. (5).

The period from Dante to Calderon with special emphasis on Italian and Spanish contributions.

Winter quarter. Mr. Friederich.

177. CLASSICISM AND PRE-ROMANTICISM (5).

The period from the French school of 1660 to the German *Sturm und Drang*, with special emphasis on French and English contributions.

Spring quarter. Mr. Friederich.

185. INTRODUCTION TO FOLKLORE (5).

Definitions and examples of folklore in general and its various categories. Collection, classification, study, and analysis of folklore materials. Bibliography. (1952-1953 and alternate years.) *Fall quarter*. Mr. Keller.

201. PROBLEMS AND METHODS IN COMPARATIVE LITERATURE (5).

The growth of comparative scholarship since 1800. Bibliography, Thematology, Influences, Parallelisms, *Zeitgeist*, and other modes of investigation. *Fall quarter*. Mr. Friederich.

DEPARTMENT OF DRAMATIC ART

Professors: SAMUEL SELDEN, R. B. SHARPE, EARL WYNN, H. E. DAVIS,
J. W. PARKER

Associate Professors: KAI JURGENSEN, R. F. SCHENKKAN

Assistant Professors: R. L. GAULT, FOSTER FITZ-SIMONS, *EDWARD
FREED, T. M. PATTERSON, RHODA HUNTER WYNN

Instructors: IRENE SMART, J. E. YOUNG, JOHN M. EHLE, JR., JOHN S.
CLAYTON

Assistants: C. A. KELLOGG, L. E. GRAVES, ANNA D. GRAHAM, R. F.
SNAVELY

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.

The courses in the Department of Dramatic Art are designed to give the student a comprehensive knowledge of dramatic literature and intensive 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.

* Resigned March 17, 1952.

Requirements for a Major: A student choosing dramatic art as his major field should take a minimum of eighteen full courses distributed as follows:

Seven to ten courses in dramatic art:

One course in Voice Training (40).

One course in Technical Laboratory (69).

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 two courses in theatre arts from: 57, 61, 63, 64, 65, 66, 67, 70, 71, 74, 75, 85, 90, 155, 156, 157, and 193.

Four to seven courses in allied departments of the Division of the Humanities, to be taken after conference with the departmental adviser.

Four to seven courses from other divisions.

Students interested in reading for honors in drama should consult the regulations governing the honors program of the Division of the Humanities.

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

40. VOICE TRAINING (English 40) (5). Open to dramatic art majors only. Improvement of the voice as a speaking and reading instrument and the study and application of a true American diction.

Three lecture and four laboratory hours a week, fall or winter quarter. Fee for materials, \$1.50. Mr. Wynn.

50. DIRECTED READINGS (5). Only for graduate transfer students needing to make up undergraduate deficiencies in the department.

Assigned readings in a selected field of dramatic literature.

Mr. Jurgensen.

57. THE DANCE (5). Open for credit to dramatic art majors 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.

Two lecture and six laboratory hours a week, fall or winter quarter. Fee for materials, \$3.00. Mr. Fitz-Simons.

61. ACTING (5). Registration is limited to twenty.

A study of fundamental principles and practice for the actor.

Fall or winter quarter. Fee for materials, \$2.00. Mr. Fitz-Simons.

63. PLAY DIRECTION (5). 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 advisers. (A student cannot receive degree credit for both this course and Dramatic Art 193.)

The theory and practice of play directing.

Spring quarter. Fee for materials, \$2.00. Mr. Fitz-Simons.

*64. SCENERY CONSTRUCTION AND PAINTING (5).

Elementary theory and practice in the construction and painting of scenery for the stage.

Three lecture and four laboratory hours a week, fall quarter. Fee for materials, \$2.00. Mr. Davis.

*65. STAGE LIGHTING (5).

Elementary theory and practice in stage lighting, including the choice of equipment and its control in the theatre.

Three lecture and four laboratory hours a week, winter quarter. Fee for materials, \$2.00. Mr. Davis.

*66. STAGE DESIGN (5). Prerequisite, Dramatic Art 64.

The history of, and elementary theory and practice in, the designing of scenery for the stage, through the preliminary sketch, the model, and the working drawings.

Spring quarter. Fee for materials, \$2.00. Mr. Gault.

*67. COSTUMING (5).

The designing and making of stage costumes with some consideration of make-up.

One lecture and eight laboratory hours a week, spring quarter. Fee for materials, \$2.00. Mrs. Smart.

*69. TECHNICAL LABORATORY (5).

Required of all majors in the Department of Dramatic Art, and limited to them. Practical technical work on the stage and in the scene and costume shops.

One lecture and eight laboratory hours a week, fall or winter or spring quarter. Messrs. Davis and Gault and Mrs. Smart.

70. INTRODUCTION TO RADIO (Radio 70) (5).

A survey course covering the organization and operation of stations and networks, participating organizations, the audience, the program, the servicing of programs, and broadcasting to schools.

Fall and winter quarters. Mrs. Wynn and guest lecturers.

70A. INTRODUCTION TO RADIO (Radio 70A) Laboratory (1). Open to dramatic art and radio majors only.

Small group instruction in the use of the basic radio equipment.

Fall and winter quarters. Fee for materials, \$2.00. Mr. Young.

71. SPEAKING AND ACTING FOR THE MICROPHONE (Radio 71) (5). Prerequisite, Dramatic Art 70A. Open to dramatic art, radio, and journalism majors only.

An introduction to speaking and acting for an aural medium; lectures, discussion, and laboratories.

Three lecture and four laboratory hours a week, winter and spring quarters. Fee for materials, \$2.00. Mr. Wynn.

* Those enrolled will be expected to assist with the technical work in the productions of The Carolina Playmakers.

74. DRAMATIC SCRIPT-WRITING FOR RADIO (Radio 74) (5). Open to dramatic art, radio, and journalism majors only.

A study of some basic forms of radio unit drama, including dramatic-narrative and documentary drama, both original and in adaptation.

Winter and spring quarters. Mr. Schenkkan.

75. RADIO PRODUCTION (Radio 75) (5). Open to dramatic art, radio, and journalism majors only. Prerequisite, Dramatic Art 70A or 71.

A study of the principles and methods of direction and production of talk, musical, and simple dramatic programs with emphasis on those basic principles which underlie all radio directing.

Four lecture and two laboratory hours a week, fall and spring quarters. Fee for materials, \$2.00. Mr. Young.

85. ELEMENTARY MOTION PICTURE PRODUCTION (Radio 85) (5).

Registration is limited to fifteen and restricted to dramatic art and radio majors. Before registering for this course, students must secure the permission of the instructor.

An elementary course dealing with the basic principles of writing, producing, and directing the sound screen play.

(Not offered in 1951-1952.) *Three lecture and four laboratory hours a week, fall quarter. Fee for materials, \$5.00.* Mr. Freed.

86. MOTION PICTURE LABORATORY (Radio 86) (3). Prerequisite, Dramatic Art 85.

Registration is limited to fifteen and restricted to dramatic art and radio majors who have completed Dramatic Art 85 with distinction. Students must secure the permission of the instructor before registering.

This course is a laboratory continuation of Dramatic Art 85, designed for those students who have shown outstanding promise. It requires actual participation on the part of the student in writing and directing films produced by the Communication Center.

(Not offered in 1951-1952.) *Six laboratory hours a week, winter quarter. Fee for materials, \$10.00.* Mr. Freed.

90. ELEMENTARY TELEVISION WRITING AND PRODUCTION (Radio 90) (5). Prerequisites, Dramatic Art 70, 71, and 75.

Registration is limited to ten and restricted to senior dramatic art and radio majors. Students must secure the permission of Professor Wynn before registering.

This course surveys the Television industry and emphasizes specifically current and experimental methods of Television writing and production.

(Not offered in 1951-1952.) *Three lecture and four laboratory hours a week, spring quarter. Fee for materials, \$10.00.* Department of Radio staff.

Courses for Graduates and Advanced Undergraduates

150. SHAKESPEARE IN THE THEATRE (5).

A study of the literary and stage history of about twelve representative plays.
Winter quarter. Mr. Jurgensen.

155. PLAYWRITING AND EXPERIMENTAL PRODUCTION I (5).

A practical course in playwriting and the experimental production of stage plays.
Fall quarter. Fee for experimental production, \$3.00. Messrs. Patterson, Selden, Parker, Jurgensen.

156. PLAYWRITING AND EXPERIMENTAL PRODUCTION II (5).

The principles of dramatic construction and practice in the writing and production of one-act plays.

Winter quarter. Fee for experimental production, \$3.00. Messrs. Patterson, Selden, Parker, Jurgensen.

157. PLAYWRITING AND EXPERIMENTAL PRODUCTION III (5).

Practice in writing one-act and full-length plays for the stage with experimental and public productions.

Spring quarter. Fee for experimental production, \$3.00. Messrs. Patterson, Selden, Davis, Parker, Jurgensen.

160. HISTORY OF THE THEATRE (5).

A study of the development of the theatre, its place in the history of civilization and its changing relations to social conditions.

Spring quarter. Mr. Jurgensen.

161. CONTINENTAL DRAMA BEFORE IBSEN (5).

A general survey of the drama and the theatre from Aeschylus to Goethe.

Fall quarter. Mr. Jurgensen.

162. MODERN CONTINENTAL DRAMA (Comparative Literature 162) (5).

A study of representative plays of the modern period from Ibsen to Giraudoux.

Winter quarter. Mr. Jurgensen.

164. BRITISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (English 164) (5).

A survey of dramatic movements and writers from 1900 to the present.

Spring quarter. Mr. Sharpe.

193. TEACHING DRAMATIC ART (5).

An intensive study of the theory and practice of play production and the organization of dramatic programs and courses, for high school teachers. (A student who has already taken Dramatic Art 63 cannot receive degree credit for this course.)

Spring quarter. Fee for materials, \$2.00. Mr. Parker.

Courses for Graduates

200. TECHNICAL DIRECTION (5). Prerequisites, Dramatic Art 64, 65, and 69, or equivalent training in technical practice.

Problems of the technical director in coordinating the engineering and mechanical aspects of production and theatre architecture.

Fall quarter. Fee for materials, \$2.00. Mr. Davis.

201. PLAY DIRECTING, ADVANCED (5). 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 quarter. Fee for materials, \$3.00. Mr. Selden.

202. STAGING METHODS (5). 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.

Winter quarter. Fee for materials, \$2.00. Mr. Davis.

203. TECHNICAL PROBLEMS IN PLAYWRITING (5). Prerequisite, Dramatic Art 155, 156 or 157.

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, winter, and spring quarters. Mr. Patterson.

210. THEATRE ADMINISTRATION (5). Open to selected dramatic art majors only.

A study of practical problems of organization, management, and promotion, especially in the regional theatres.

Winter quarter. Mr. Parker.

299. THEATRE WORKSHOP (3 to 12 hours course credit, not toward a 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.

325. SEMINAR IN MODERN DRAMA (English 325) (5).

Research in dramatic literature, theatrical history, and staging methods.

Fall quarter. Messrs. Sharpe, Selden.

340. SPECIAL READINGS (5).

Research in a special field of modern drama or the history of the theatre. This course may not be repeated for credit. Mr. Selden.

**DEPARTMENT OF ECONOMICS AND SCHOOL OF
BUSINESS ADMINISTRATION**

Professors: T. H. CARROLL, J. B. WOOSLEY, D. D. CARROLL, E. E. PEACOCK, R. J. M. HOBBS, C. P. SPRUILL, G. T. SCHWENNING, CLARENCE HEER, H. D. WOLF, D. H. BUCHANAN, M. S. HEATH, D. J. COWDEN, R. S. WINSLOW, R. P. CALHOON, P. N. GUTHRIE, C. H. MCGREGOR, J. E. DYKSTRA, C. S. LOGSDON, O. T. MOUZON

Associate Professors: *C. C. CARTER, †F. J. KOTTKE, A. G. SADLER, C. A. KIRKPATRICK, J. C. D. BLAINE, G. A. BARRETT, J. T. O'NEIL, CLARENCE PHILBROOK, L. D. ASHBY, *D. M. MCGILL, A. M. WHITEHILL, JR.

Assistant Professors: T. M. STANBACK, JR., *R. L. BUNTING, K. R. DAVIS, W. A. TERRILL

Lecturers: ‡FRANZ GUTMANN, A. W. PIERPONT, G. M. WOODWARD, R. W. PFOUTS, A. R. DOOLEY, W. O. CUMMINGS, E. W. SCHADT, R. G. SARLE

Part-time Lecturer: R. C. WADE

Instructors: J. M. PARRISH, I. N. REYNOLDS

Part-time Instructors: J. M. RYAN, J. E. HIBDON

Teaching Fellows: W. L. IVEY, J. P. MAGGARD

Ernest H. Abernethy Fellow in Southern Industry: F. L. HENDRIX

Research Assistant: E. P. TRUEX

For the degree of A.B. with a major in economics:

1. Six full quarter advanced courses in economics, including Economics 81 and Economics 170, are required; and seven full quarter advanced courses in economics may be taken.

a) Economics 31 and 32 should be taken while in the General College, as these basic courses are prerequisites for the six required advanced courses. A grade of C or better in Economics 31 and 32 is required as a condition of admission to a program leading to a major in economics.

b) Mathematics 7 and 9 or R, 7x, and 9 should be taken while in the General College as these courses are prerequisites for Economics 170. In special cases Mathematics 8 may be substituted for Mathematics 9.

2. From five to seven full quarter allied courses within the Division of Social Sciences are required. With the permission of the head of the department, a maximum of three courses in business administra-

* Absent on leave for military duty.

† Absent on leave for one year, beginning spring quarter, 1951.

‡ Lecturer Emeritus.

tion may be counted as allied courses, provided that the program of study warrants these courses as a part of a well-developed and integrated plan. In any case, the combined maximum number of courses in economics and business administration shall not exceed nine.

3. From five to seven full quarter non-divisional courses within the Divisions of Humanities and Natural Sciences are required.

4. A minimum total of eighteen full quarter divisional and non-divisional courses in addition to those necessary for admission to the College of Arts and Sciences are required.

ECONOMICS

Courses for Undergraduates

31-32. GENERAL ECONOMICS (5 each quarter). 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.

Every quarter. Messrs. Guthrie, Spruill, Mouzon, Ashby, Stanback, Parrish, Ryan, Hibdon, and other members of the staff.

41. RESOURCES AND INDUSTRIES (5). Prerequisite, Economics 31-32 or equivalent. Not open to economics majors.

A functional study of the availability of agricultural and industrial resources. The social and economic problems related to the appraisal and utilization of world resources.

Winter quarter. Mr. Mouzon.

61. PRINCIPLES OF ECONOMICS (5). Not open to freshmen or sophomores. For juniors and seniors not majoring in economics or business administration who desire a working knowledge of the American economic system and the structure and functioning of its characteristic institutions. Students who complete this course with a grade of C or better may use it as the general economics prerequisite for advanced courses in economics and business administration.

Every quarter. Messrs. D. D. Carroll, Schadt.

81. MONEY AND BANKING (5). Prerequisite, Economics 31-32 or equivalent. 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.

Every quarter. Messrs. Woodward, Pierpont.

111. INTERNATIONAL RESOURCES AND NATIONAL POLICY (5). Prerequisite, Economics 31-32 or equivalent.

The impact of technics upon international resources. The nature of resources, resources and production, basic international agricultural and industrial resources, and international resource interdependence.

Winter quarter. Mr. Mouzon.

124. PRINCIPLES OF MARKETING (5). Prerequisite, Economics 31-32 or equivalent.

Marketing organization and methods with emphasis on the social and economic aspects of distribution. Consumer problems, marketing functions and institutions, marketing methods and policies.

Every quarter. Messrs. McGregor, Kirkpatrick, Blaine, Davis, Stanback.

131. ECONOMIC THEORY (5). Prerequisite, Economics 31-32 or equivalent.

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 quarter. Mr. Philbrook.

135. ECONOMIC HISTORY (5). Prerequisite, Economics 31-32 or equivalent.

A study of economic developments in Europe and the United States. Emphasis is placed upon comparative economic conditions and developments and their relation to the political and cultural movements.

Fall quarter. Mr. Buchanan.

137. ECONOMIC DEVELOPMENTS IN THE ORIENT SINCE 1800 (5).

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.

Spring quarter. Mr. Buchanan.

141. PUBLIC FINANCE (5). Prerequisite, Economics 31-32 or equivalent.

A general course covering the facts and theories of American public finance—federal, state, and local. Public expenditure, taxes and other forms of revenue, public borrowing, fiscal administration and policies.

Every quarter. Messrs. Heer, Ashby.

143. PROBLEMS IN STATE AND LOCAL FINANCE (5). Prerequisite, Economics 141.

Selected problems relating to the financing of state and local functions.

Winter quarter. Mr. Heer.

145. THEORIES AND FORMS OF BUSINESS ENTERPRISE (5). Prerequisite, Economics 31-32 or equivalent.

The theories of business enterprise held by government officials and by business leaders. The development of institutions through which each group has sought to organize American business in conformity with its theories.

Fall quarter. Mr. Kottke.

151. TRANSPORTATION (5). Prerequisite, Economics 31-32 or equivalent.

The facilities and relative importance of the several types of transportation, state and federal regulations, rate-making practices, carrier relations, financing, and reorganizations.

Fall and spring quarters. Mr. Blaine.

153. PUBLIC UTILITIES (5). Prerequisite, Economics 31-32 or equivalent.

The theory, techniques, and problems of government intervention in the establishment and operation of communications and power facilities, whether through regulation or public ownership.

Winter quarter. Mr. Kottke.

161. THEORY OF INTERNATIONAL TRADE (5). Prerequisite, Economics 31-32 or equivalent.

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.

Winter quarter. Mr. Philbrook.

170. ECONOMIC STATISTICS (5). Prerequisites, Mathematics 7, 8 or 10, Economics 31-32 or equivalent.

Sources and collection of data, tabular and graphic presentation, averages, dispersion, time-series analysis, correlation, index numbers, reliability of statistics and tests of significance.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Cowden, Pfouts.

171. STATISTICAL INFERENCE AND QUALITY CONTROL (5). Prerequisite, Economics 170.

Methods of sampling. Industrial quality control. Frequency distributions: normal; Pearsonian; Gram-Charlier; hyper-geometrical; binomial; Poisson. Curve fitting. Uses of F, t, and Chi-square. Estimation; confidence limits; tests of hypotheses. Analysis of variance.

Five lecture hours and outside assignments each week, fall quarter. Laboratory fee, \$3.00. Mr. Cowden.

172. INDEX NUMBERS AND ANALYSIS OF ECONOMIC TIME SERIES (5). Prerequisite, Economics 170.

Index numbers construction: kinds of bias; tests of index numbers. Analysis of economic time series: non-linear trends; progressive seasonal; harmonic analysis; autoregression. Use of orthogonal polynomials. Forecasting.

Five lecture hours and outside assignments each week, winter quarter. Laboratory fee, \$3.00. Mr. Cowden.

173. CORRELATION ANALYSIS (5). Prerequisite, Economics 170.

Fitting of regression equations. Multiple correlation, linear and non-linear. Partial correlation. Correlation concepts. Compact methods of computation. Tests of significance in correlation.

Five lecture hours and outside assignments each week, spring quarter. Laboratory fee, \$3.00. Mr. Cowden.

182. MATHEMATICAL ECONOMICS (Mathematical Statistics 182) (5). 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.

(1952-1953 and alternate years.) *Fall quarter.* Mr. Hotelling.

183. ADVANCED MATHEMATICAL ECONOMICS (Mathematical Statistics 183) (3). Prerequisites, Statistics 182 and Mathematics 141 (differential equations).

Dynamic variations in the economy. Development of elements of the calculus of variations and of stochastic difference equation theory, with applications to economic problems. Mathematical treatment of business cycles. Valuation of property taking account of depreciation and depletion. Most profitable rates of exploitation of mineral and biological resources. Relation of private exploitation to the public welfare and effects of various taxes and regulations.

(1952-1953 and alternate years.) *Winter quarter.* Mr. Hotelling.

185. BUSINESS CYCLES (5). Prerequisite, Economics 81 or equivalent.

Unemployment and its avoidance. A critical examination of theories of business fluctuations, and consideration of means of maintaining a high level of employment.

Winter and spring quarters. Mr. Philbrook.

191. AN INTRODUCTION TO THE LABOR PROBLEM (5). Prerequisite, Economics 31-32 or equivalent.

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.

Every quarter. Messrs. Wolf, Guthrie.

192. COLLECTIVE BARGAINING (5). Prerequisite, Economics 191.

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.

Winter quarter. Mr. Wolf.

193. HISTORY OF THE LABOR MOVEMENT (5). Prerequisite, Economics 191.

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.

(1951-1952 and alternate years.) *Spring quarter.* Mr. Guthrie.

194. SOCIAL INSURANCE (5). Prerequisite, Economics 191.

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.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Guthrie.

195. THEORIES OF ECONOMIC REFORM (5). Prerequisite, Economics 31-32 or equivalent.

A review of the basic institutions of the present economic order, followed by a critical examination of the leading proposals for reform, including Socialism, Communism, Totalitarianism, Single Tax, Consumer Cooperation, and Social Insurance.

Fall and spring quarters. Mr. D. D. Carroll.

197. GOVERNMENT AND BUSINESS (5). Prerequisite, Economics 31-32 or equivalent.

The regulation and control of business by government. Constitutional provisions, the antitrust laws, public utilities, taxation, labor laws, and transportation are the fields explored.

Winter and spring quarters. Messrs. Hobbs, Carter.

Courses for Graduates

211. ADVANCED COMMODITY ECONOMICS (5). Prerequisite, Economics 111.

The supply and demand conditions of selected commodities representing certain types. The institutional factors affecting these conditions, with special reference to commodity control schemes.

Spring quarter. Mr. Mouzon.

224. THE ECONOMICS OF MARKETING (5). Prerequisite, Economics 124.

An evaluation of marketing structure and practices in terms of economic costs and social needs. Emphasis placed on the application of economic principles in the solution of marketing problems.

Spring quarter. Mr. McGregor.

235. ECONOMIC DEVELOPMENTS IN THE OCCIDENT BEFORE 1750 (5).

A survey of economic institutions in the ancient world, a study of medieval agriculture, the rise of cities, the Commercial Revolution, and the earlier stages of the Industrial Revolution.

(1951-1952 and alternate years.) *Winter quarter.* Mr. Buchanan.

236. ECONOMIC DEVELOPMENTS IN THE OCCIDENT SINCE 1750 (5).

The evolution of modern economy in Europe and the United States. Emphasis on the Industrial Revolution and the changes which have accompanied it in agriculture, transportation, money and banking, trade, and the condition of laborers.

(1952-1953 and alternate years.) *Winter quarter.* Mr. Buchanan.

241. HISTORY OF FISCAL DOCTRINES (5). Prerequisite, Economics 141. Theories of distributive justice and taxation; the incidence and economic effects of taxation; and the use of fiscal measures as instruments of social control. *Spring quarter*. Mr. Heer.

242. PROBLEMS IN FEDERAL FINANCE (5). Prerequisite, Economics 141. An advanced critical study of the problems of American national finance with particular reference to federal taxes and federal tax procedure. (1951-1952 and alternate years.) *Fall quarter*. Mr. Heer.

244. INDUSTRIAL COMBINATIONS (5). 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.

Winter quarter. Mr. Kottke.

251-252-253. ADVANCED ECONOMIC THEORY (5 each quarter). Prerequisite, Economics 31-32 or equivalent.

The scope and analytical structure, the underlying philosophical postulates, and the relations to historical problems and policies of the leading types of economic theory. Economics 251 includes a survey of scope and method, but devotes primary attention to the Classical, Historical, and Socialist schools; Economics 252 covers the period of the earlier marginal utility economists and Marshall; and Economics 253, the developments in current theory since 1918.

Fall, winter, and spring quarters. Mr. Heath.

281. MONEY, PRICES, AND FOREIGN EXCHANGE (5). Prerequisite, Economics 81.

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.

Fall quarter. Mr. Philbrook.

282. COMMERCIAL AND CENTRAL BANKING (5). Prerequisite, Economics 81.

The structure, functions, and operations of commercial and central banks with special reference to the Federal Reserve System. The policies of central banks as they relate to production, the national income, and the price level.

Spring quarter. Mr. Woosley.

291. LABOR ECONOMICS (5). Prerequisite, Economics 191.

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 reduced working hours, collective bargaining, and social insurance.

Spring quarter. Mr. Wolf.

295. CASE STUDIES IN ECONOMIC REFORM (5). Prerequisite, Economics 195.

Selected case studies in current proposals for reform in the economic system. Individual assignments are made for critical study and reports.

Spring quarter. Mr. D. D. Carroll.

324. SEMINAR IN MARKETING (5).

A course providing selected graduate students the opportunity to make an intensive study of specific marketing problems.

**Fall or winter or spring quarter*. Messrs. McGregor, Logsdon.

NOTE: Registration for this course must be approved by the professor in charge.

* Equivalent of five hours a week.

341. RESEARCH COURSE IN PUBLIC FINANCE (5).

Open to qualified graduate students who wish to make intensive studies under the supervision of the instructor in charge of particular fields of public finance. Conference hours subject to arrangement.

**Fall or winter or spring quarter.* Messrs. Heer, Ashby.

NOTE: Registration for this course must be approved by the professor in charge.

351abc. SEMINAR IN ECONOMICS (5 each quarter).

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 251-252-253.

**Fall or winter or spring quarter.* Messrs. Heath, Philbrook.

NOTE: Registration for this course must be approved by the professor in charge.

371. RESEARCH IN ECONOMIC STATISTICS (5).

**Winter or spring quarter.* Mr. Cowden.

NOTE: Registration for this course must be approved by the professor in charge.

382. SEMINAR IN PRIVATE FINANCE (5).

An advanced study of commercial banking, central banking policies, and the forces operating in the money and capital markets.

**Winter or spring quarter.* Messrs. Woosley, O'Neil.

NOTE: Registration for this course must be approved by the professor in charge.

385. ECONOMIC DYNAMICS (5).

The advanced study of business cycles. The modern controversy over employment and wages, interest, and money; anti-depression policy.

**Winter quarter.* Mr. Philbrook.

NOTE: Registration for this course must be approved by the professor in charge.

391. SEMINAR IN LABOR (5).

This course offers mature students an opportunity to carry their investigations of significant subject matter beyond the limits of the formal course offerings.

**Fall or winter or spring quarter.* Messrs. Wolf, Guthrie.

NOTE: Registration for this course must be approved by the professor in charge.

399. SEMINAR (5).

Individual research in a special field under direction of a member of the department.

BUSINESS ADMINISTRATION

Courses for Undergraduates

51. BUSINESS ORGANIZATION (5). Prerequisite, Economics 31 or equivalent.

The forms of business organization with emphasis on the corporation. Special attention is given to the functions of production, finance, personnel, marketing, risk-taking, and records and standards.

Winter quarter. Mr. Blaine.

66. GENERAL PSYCHOLOGY FOR STUDENTS OF BUSINESS ADMINISTRATION (5). For students in the School of Business Administration; not open to others.

The basic principles of psychology which will enable the student to read and evaluate intelligently in any of the special fields. Much of the illustrative material relates to business problems.

Every quarter. Messrs. Bagby, Shepard.

* Equivalent of five hours a week.

71. ACCOUNTING PRINCIPLES I (5). Corequisite (or prerequisite), Economics 31-32 or equivalent.

An introduction to elementary accounting principles for single proprietorship, partnership, and corporation; covers the cycle of bookkeeping procedure: journalizing, posting, preparing a trial balance, adjustments, working papers, and closing the books.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Peacock, Sadler, Stallings, Terrill, Wade, Reynolds.

72. ACCOUNTING PRINCIPLES II (5). Prerequisite, Business Administration 71.

Accounts for corporations and manufacturing companies are given special attention. The valuation of assets and liabilities and the analysis of financial statements.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Peacock, Sadler, Stallings, Terrill, Reynolds.

91. BUSINESS LAW (5). Prerequisite, Economics 31-32 or equivalent.

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.

Every quarter. Messrs. Hobbs, Carter, Barrett.

92. BUSINESS LAW (5). Prerequisite, Business Administration 91 or equivalent.

The law of negotiable instruments and the legal principles governing sales including conditional sales and their security transactions are covered. Corporations and partnerships are given limited treatment.

Every quarter. Messrs. Hobbs, Carter, Barrett.

93. LAW OF TRADE (5). Prerequisite, Business Administration 91.

This course considers the law affecting the conduct of trade and industry. General topics covered include sales, the nature and scope of competition at common law, and the recent legislative attempts to fix the boundaries of permissible competition.

Winter quarter. Mr. Barrett.

Courses for Graduates and Advanced Undergraduates

120. GENERAL INSURANCE (5). Prerequisite, Economics 31-32 or equivalent.

A survey of the fundamental principles of insurance and their application to life, property, casualty, and social insurance. Laws of probability, hazards, transfer and pooling of risks, contracts, rate-making, reserves, loss prevention, and state regulations.

Fall quarter. Mr. Cummings.

121. LIFE INSURANCE (5). Prerequisite, Economics 31-32 or equivalent.

Detailed analysis of the basic principles and practices of life insurance. Includes functions of life insurance, types of policies and their purposes, calculations of premiums and reserves, sources of dividends, settlement options, non-forfeiture benefits, selection of risks, company organization, and important legal principles.

Fall and winter quarters. Mr. Cummings.

122. PROPERTY INSURANCE (5). Prerequisite, Economics 31-32 or equivalent.

A study of the important types of property coverages, including fire, marine, and inland marine insurance. Includes hazards, types of policies and endorsements, determination of rates, reinsurance, company organization, state regulations, and judicial decisions.

Winter quarter. Mr. Cummings.

123. CASUALTY INSURANCE (5). Prerequisite, Economics 31-32 or equivalent.

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.

Spring quarter. Mr. Cummings.

124. ADVANCED LIFE INSURANCE (5). Prerequisite, Business Administration 121.

An analytical study of the more specialized life insurance services, such as administration of policy proceeds, the integration of life and property estates, business life insurance, and group coverages.

Spring quarter. Mr. Cummings.

125. ADVANCED PROPERTY AND CASUALTY INSURANCE (5). Prerequisites, Business Administration 122 and 123.

A topical analysis of the major problems in property and casualty insurance. Areas studied include legal background, financial structure, agency management, underwriting, rate-making, reserves, loss prevention, loss adjustment, and regulation.

Spring quarter. Mr. McGill.

130 (151). PRINCIPLES OF INDUSTRIAL MANAGEMENT (5). Prerequisite, Economics 31-32 or equivalent.

A survey of the basic principles and control practices of modern scientific management, as applied in industry.

Every quarter. Messrs. Dykstra, Whitehill, Dooley, Sarle.

131 (154). PRODUCTION MANAGEMENT: THEORIES AND PRACTICES (5). Prerequisite, Business Administration 151.

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.

Winter quarter. Mr. Dykstra.

133 (157). TIME AND MOTION STUDY (5). Prerequisite, Business Administration 151. Open to seniors and graduate students only.

The principles and techniques of modern motion and time study. This is principally a laboratory course in which students learn by doing.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$6.00. Mr. Dykstra.

138 (158). PRODUCTION MANAGEMENT PROBLEMS (5). Prerequisite, Business Administration 151.

This course deals with the solution of common industrial problems, such as determining economical manufacturing lot sizes and machinery replacement problems. The approach combines management principles with mathematical methods.

Spring quarter. Mr. Dykstra.

139. INDUSTRIAL PURCHASING (5). Prerequisite, Economics 124 or Business Administration 151.

A study of the purchasing function, its organization and major problems. Includes organization of the department, purchasing procedures and policies, price forecasting, legal aspects of purchasing; traffic and claims, stores control, budgeting, and measurements of performance.

Fall quarter. Mr. Logsdon.

141. TRAFFIC MANAGEMENT (5). Prerequisite, Economics 151.

A study of the problems related to the operation and management of traffic departments, the movement of freight traffic, services, shipping forms and regulations, charges and rate construction, and claims and claim prevention.

Spring quarter. Mr. Blaine.

150 (155). PERSONNEL RELATIONS (5). Prerequisite, Economics 31-32.

The methods of hiring and handling personnel; the supply, selection, training, promotion, transfer, and discharge of employees; the computation and significance of labor turnover; housing, educational, and recreational facilities.

Every quarter. Messrs. Schwenning, Calhoon, Whitehill.

153. LABORATORY ANALYSIS IN PERSONNEL WORK (Psychology 181) (5). Advised prerequisite, Psychology 135 or Business Administration 155.

A laboratory course in personnel techniques as applied practically to job analysis, constructing application blanks, rating scales, etc.

Ten laboratory hours a week. Laboratory fee, \$3.00. Miss Adkins, Mr. Paul.

156. PERSONNEL PROBLEMS (5). Prerequisite, Business Administration 155.

Development of personnel projects and problem solutions on a professional scale. Analysis of personnel problems by use of case studies and demonstrations.

Four lecture and two laboratory hours a week, fall and winter quarters. Laboratory fee, \$3.00. Mr. Calhoon.

159. EMPLOYMENT SELECTION AND TRAINING (5). Prerequisite, Business Administration 155.

An analysis of the methods of selecting and training employees, with primary emphasis on interviewing, evaluating, inducting, and counseling on the job.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Calhoon.

161. ADVERTISING (5). Prerequisite, Economics 124 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.

Every quarter. Mr. Kirkpatrick.

165. RETAIL DISTRIBUTION (5). Prerequisite, Economics 124.

The general policies and operating practices of retail institutions. Store location, layout and merchandise classification, planning and stock control, store operations, and budgeting and cost control.

Every quarter. Mr. McGregor.

167. SALES MANAGEMENT (5). Prerequisite, Economics 124.

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.

Every quarter. Messrs. Logsdon, Davis.

168. SALES AND MARKET ANALYSIS (5). Prerequisites, Economics 170 and Economics 124.

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.

Spring quarter. Mr. Logsdon.

169. MARKETING POLICIES (5). Prerequisite, Economics 124 and senior standing.

A problem course dealing with specialized marketing functions and policies of marketing firms. Among the problems and policies considered are: product and line, brands, channels of distribution, prices and pricing, sales promotion, and operating diagnosis and control.

Every quarter. Messrs. McGregor, Kirkpatrick, Stanback.

171. INTERMEDIATE ACCOUNTING (5). Prerequisites, Business Administration 71, 72.

A study of the complex and technical accounting problems involved in actuarial science, consignments, installment sales, branches, mergers, partnership installment liquidation, and insurance.

Every quarter. Messrs. Sadler, Terrill.

172. ADVANCED ACCOUNTING (5). Prerequisite, Business Administration 171.

A study of accounting for combinations, consolidations, trustees, estates and corporate receiverships, liquidations, and reorganizations.

Every quarter. Mr. Terrill.

173. COST ACCOUNTING (5). Prerequisites, Business Administration 71, 72.

A thorough study of cost systems, including job order, process, and standard costs. Much attention is given to the control of costs through the use of material and labor forms.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Peacock, Stallings.

175. AUDITING (5). Prerequisites, Business Administration 71, 72.

A course in auditing theory and practice. The auditing procedures established by the American Institute of Accountants are covered and the duties of both the junior and senior accountants are studied.

Four lecture and two laboratory hours a week, every quarter. Laboratory fee, \$3.00. Mr. Peacock.

177. INCOME TAX ACCOUNTING (5). Prerequisites, Business Administration 71, 72.

A study of the federal income tax laws and their application to practical tax situations. Lectures are supplemented by laboratory problems designed to afford training in the preparation of actual returns.

Four lecture and three laboratory hours a week, every quarter. Laboratory fee, \$3.00. Mr. Terrill.

178. CERTIFIED PUBLIC ACCOUNTING PROBLEMS (5). Prerequisite, major in accounting.

A review of the general and specialized accounting problems which constitute the subject matter of C.P.A. examinations.

Winter quarter. Mr. —————.

179. GOVERNMENTAL ACCOUNTING (5). Prerequisite, Business Administration 172.

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.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Sadler.

180 (191). CORPORATION FINANCE (5). Prerequisites, Economics 31-32, Business Administration 71.

A study of the principles and practice of corporate financing. The methods of raising permanent capital, problems of current financing, the treatment of earnings, and financial problems incident to expansion and reorganization.

Every quarter. Messrs. O'Neil, Dooley, Sarle, Pierpont.

182 (192). CORPORATE FINANCIAL PROBLEMS (5). Prerequisite, Business Administration 191.

The development of policies by both large and small corporations to solve financial problems. Cases provide the basis for a critical evaluation of managerial decisions which create a defensible financial policy.

Fall quarter. Mr. O'Neil.

184 (181). COMMERCIAL BANKING: OPERATIONS AND POLICIES (5). Prerequisite, Economics 81.

A study of the organization and operation of banks; analyses of bank assets, liabilities, earnings, and expenses; the interrelations of business and banking policies.

Winter quarter. Mr. Woosley.

185 (195). INVESTMENTS (5). Prerequisite, Business Administration 191.

A survey of investment principles and practices. Primary emphasis is placed on security analysis with the objective of developing techniques and standards of investment appraisal.

Winter and spring quarters. Messrs. Woosley, O'Neil.

199. BUSINESS POLICY (5). Prerequisite, senior standing and permission of the instructor.

This course integrates and builds upon the basic courses in the business administration curriculum. It approaches the field of policy-making and administration from the top management point of view. The dynamic character of a firm's position in the economy and society is stressed.

Winter quarter. Mr. T. H. Carroll.

Courses for Graduates

207. THE FUNCTIONS AND THEORIES OF MANAGEMENT (5). Prerequisite, Business Administration 51 or equivalent.

The function and theories of management in contemporary business. The management movement, scientific method in management, laws of organization, and types and theories of management organization.

Winter quarter. Mr. Schwenning.

255. WAGE ADMINISTRATION AND JOB EVALUATION (5). Prerequisite, Business Administration 155.

The technical aspects of wage administration with emphasis on incentive plans, job evaluation systems, and problems encountered in wage and salary administration.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Calhoon.

273. ADVANCED COST ACCOUNTING (5). Prerequisite, Business Administration 173.

Process cost accounting procedures, budgetary control and cost accounting, standard cost accounting and managerial analyses and reports.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Stallings.

274. ACCOUNTING SYSTEMS (5). Prerequisites, Business Administration 172, 173.

The design and installation of accounting systems for textile and furniture manufacturing firms, banks, and public utilities.

Five lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Sadler.

399. SEMINAR (5 each quarter).

Individual research in a special field under the direction of a member of the department.

SCHOOL OF EDUCATION

Professors: G. B. PHILLIPS, W. C. RYAN, E. W. KNIGHT, A. M. JORDAN, O. K. CORNWELL, A. K. KING, W. E. ROSENSTENGEL, J. M. GWYNN, W. J. MCKEE, W. H. PLEMMONS, H. A. PERRY, R. E. JAMERSON, G. E. SHEPARD, *THELMA G. THURSTONE

Director of Bureau of Education Research and Service: A. S. HURLBURT

Director of Physical Education and Athletics: R. A. FETZER

Associate Professors: W. H. PEACOCK, W. D. PERRY, RUTH WHITE FINK, DOROTHY MCCUSKEY, C. F. BROWN, GORDON ELLIS, C. E. MULLIS, †H. C. HOUSE

Assistant Professors: S. M. HOLTON, WILLINDA SAVAGE, †E. M. ALLEN, W. W. RABB, RUTH PRICE, DORIS HUTCHINSON, L. R. CASEY, J. T. HUNT

Instructors: CARL BLYTH, JAMES CAMP, §ROBERT COX, C. P. ERICKSON, JAMES P. GILL, THEODORE HAZELWOOD, BUNN HEARN, JOSEPH HILTON, §CHARLES JUSTICE, MARY FRANCES KELLAM, J. F. KENFIELD, FITZ LUTZ, WILLIAM T. MEADE, WALTER PUPA, GEORGE J. RADMAN, M. D. RANSON, M. Z. RONMAN, TOM SCOTT, CARL SNAVELY, HAMMOND STRAYHORN, R. A. WHITE

Part-time Instructor: MAUDE HOLLINGSWORTH

Visiting Lecturers: J. S. TIPPETT, W. M. JENKINS

Teaching Fellow: R. W. WHETSTONE

Graduate Assistants: HERMAN JOHN PRESEREN, THEODORE A. BONDI, DONALD R. BORING, GAYLER EUGENE HOOKS, ELIZABETH UMSTEAD, ERNEST W. WILLIAMSON

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.

* Beginning September, 1952.

† Absent on leave, 1951-1952.

‡ Absent on leave for military duty.

§ Resigned March 1, 1952.

Courses for Undergraduates

NOTE: For undergraduate courses in physical education see the Department of Physical Education.

41. INTRODUCTION TO THE STUDY OF EDUCATION I (5). (*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.

Any quarter. Messrs. Phillips, Holton, Hurlburt, Mrs. Hollingsworth, Miss McCuskey.

42. INTRODUCTION TO THE STUDY OF EDUCATION II (5).

Winter quarter. Mr. Plemmons.

61, 63, 75, 76, 77, 81, 83a, 83b, 85, 87, 89, 91. METHODS AND MATERIALS IN TEACHING IN: ELEMENTARY GRADES, HEALTH AND PHYSICAL EDUCATION, INSTRUMENTAL MUSIC, CHORAL MUSIC, ART, ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (5). (*Teaching*). These courses yield course or hour credit only for the degree granted by the School of Education.

Emphasis is placed upon the teacher's function in classroom learning situations and in the operation of the public school. The course is concerned with the study of problems common to all teachers, as well as those peculiar to teaching in the subject areas.

Any quarter.

62, 64, 78, 79, 80, 82, 84a, 84b, 86, 88, 90, 92. STUDENT TEACHING IN: ELEMENTARY GRADES, HEALTH AND PHYSICAL EDUCATION, INSTRUMENTAL MUSIC, CHORAL MUSIC, ART, ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (10 or 15). (*School, Pupil, Teaching*). These courses yield course or hour credit only for the degree granted by the School of Education.

Student teaching is conducted on a full-time basis which enables the student to participate in all aspects of public school life. It is designed to emphasize learnings in the three areas of *The Child, The School, and Teaching*, as outlined in the plan of the professional courses. Student teaching is carried out under University supervision in cooperating public schools in the state.

Any quarter. Laboratory fee, \$20.00.

71. CHILD GROWTH AND DEVELOPMENT (5). (*The Pupil*). Required of all prospective teachers.

A course designed to acquaint the student with significant aspects of child growth and development as they relate to the educational process. Functional understanding of individual differences, growth, personality, and factors influencing learning is stressed.

Four lecture and two laboratory hours a week, any quarter. Laboratory fee, \$20.00. Messrs. Jordan, Hunt, Mrs. Hollingsworth.

73. STATISTICAL METHODS IN EDUCATION (3).

Any quarter. Staff.

74ab. THE ELEMENTARY SCHOOL (3 or 5). (*The School*).

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

relationship to the various community agencies concerned with the education of the child.

Any quarter. Messrs. Perry, Brown, Miss Savage.

95. BOOK SELECTION FOR YOUNG PEOPLE (5).

Winter quarter. Miss Kalp (of the School of Library Science).

96. SELECTION AND USE OF REFERENCE MATERIALS (5).

Winter quarter. Miss Kalp (of the School of Library Science).

97. BOOK SELECTION FOR CHILDREN (5).

Spring quarter. Miss Kalp (of the School of Library Science).

99. THE SECONDARY SCHOOL (5). (*The School*).

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.

Any quarter. Messrs. Gwynn, Holton, King.

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.

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.

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 Saturdays at Chapel Hill see separate announcements available in advance of each quarter's work.

101ab. EDUCATIONAL ADMINISTRATION (5).

Any quarter. Messrs. Phillips, Rosentengel, Hurlburt.

102. ELEMENTARY SCHOOL ORGANIZATION AND ADMINISTRATION (3).

Three hours a week, winter quarter. Mr. Perry.

105ab. GUIDANCE IN THE SCHOOL (3 or 5).

Three or five hours a week, fall or winter quarter. Messrs. Perry, Ellis.

110. PHILOSOPHY OF MODERN EDUCATION (5).

Fall quarter. Messrs. Ryan, Plemmons, Miss Savage.

111. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL ARTS IN THE MODERN SCHOOL (3).

Three hours a week, fall quarter.

112. EDUCATIONAL SOCIOLOGY (5). See Sociology 171.

120. PRINCIPLES OF PHYSICAL EDUCATION (3). See Physical Education, 120.

121. ADMINISTRATION OF PHYSICAL EDUCATION (5). See Physical Education 121.

130. PRINCIPLES AND METHODS IN ADULT EDUCATION (3).
(Not offered in 1951-1952.) *Three hours a week.*
131. ADULT EDUCATION: A GENERAL SURVEY (3).
(Not offered in 1951-1952.) *Three hours a week.*
135. AUDIO-VISUAL INSTRUCTION: TECHNIQUES AND MATERIALS (3).
Three hours a week, fall and spring quarters. Materials fee, \$2.00. Mr. Milner.
142. EUROPEAN FOUNDATIONS OF MODERN EDUCATION (5).
Winter quarter. Mr. Knight.
143. SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES
(History 170) (5).
Fall quarter. Mr. Knight.
- 144ab. COMMUNITY EDUCATION (3 or 5).
Three or five hours a week, winter or spring quarter. Messrs. Perry, Ryan,
Tippett.
146. CONTEMPORARY ISSUES AND TRENDS IN EDUCATION (5).
Spring quarter. Mr. Knight.
147. HIGHER EDUCATION IN THE UNITED STATES (5). Prerequisite,
Education 142 or Education 143, or equivalent.
(Not offered in 1951-1952.) Mr. Knight.
- 152ab. THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3 or 5).
Three or five hours a week, fall quarter. Messrs. Brown, Tippett, Miss McCuskey.
154. THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3).
Three hours a week, winter quarter. Mr. Perry.
155. NATURAL SCIENCE IN THE ELEMENTARY SCHOOL (3).
Three hours a week, spring quarter. Mr. Tippett.
156. ARITHMETIC IN THE ELEMENTARY SCHOOL (3).
Three hours a week, fall quarter.
- 160ab. CURRICULUM CONSTRUCTION (3 or 5).
Open to seniors and graduate students with 25 quarter hours of credit in ed-
ucation.
Three or five hours a week, fall or winter quarter. Messrs. Gwynn, Tippett, Miss
McCuskey.
161. PROGRESSIVE PRACTICES IN THE MODERN SCHOOL (3).
Three hours a week, winter or spring quarter. Messrs. Brown, Tippett, Miss
McCuskey, Miss Savage.
165. CORRECTIVE READING (5). Prerequisite, Education 152.
Intensive study of the diagnosis, correction, and prevention of difficulties in
silent and oral reading. This course deals with both elementary and secondary
school reading problems. The principles and practices are applied in work with
children who are receiving help in the Reading Clinic.
Spring quarter. Messrs. Brown, Hunt.
- 171ab. GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD (3 or 5).
a. Child Development (3).
b. Adolescence (3).
Three or five hours a week, spring quarter. Messrs. Jordan, Hunt, Miss Savage.

172. THE PROBLEMS OF MALADJUSTMENT AMONG CHILDREN (3).
Three hours a week, winter quarter. Messrs. Jordan, Perry.
- 174ab. USE AND INTERPRETATION OF EDUCATIONAL TESTS AND MEASUREMENTS (3 or 5).
Three or five hours a week, fall quarter. Mr. Jordan.
175. EXTRACURRICULAR ACTIVITIES (5).
Spring quarter. Mr. Plemmons.
176. MENTAL HYGIENE IN TEACHING (5). Prerequisite, introductory courses in psychology and education.
Winter or spring quarter. Messrs. Ryan, Jordan.
- 177abc. SURVEY IN SPECIAL EDUCATION (3 or 9).
(Not offered in 1951-1952.) *Three or five hours a week, fall and spring quarters.*
- 178ab. THEORY AND PRACTICE IN EDUCATING THE SPEECH HANDICAPPED (3 or 5).
(Not offered in 1951-1952.) *Three or five hours a week, winter quarter.*
196. THE JUNIOR HIGH SCHOOL (3).
Three hours a week, spring quarter. Messrs. Gwynn, Plemmons.
197. SOCIAL POLICY AND EDUCATION (3).
Three hours a week, fall quarter. Mr. King.
199. SECONDARY EDUCATION IN THE UNITED STATES (5).
Winter quarter. Messrs. King, Plemmons, Gwynn.
201. PROCEDURES IN EDUCATIONAL RESEARCH (3).
Three hours a week, any quarter. Messrs. King, McKee.
203. STATISTICAL METHODS IN EDUCATION (5). Prerequisite, Education 71.
Fall and winter quarters. Messrs. Jordan, Rosenstengel, Cornwell.
204. TECHNIQUES IN EDUCATIONAL LEADERSHIP (3).
Three hours a week, spring quarter. Messrs. Phillips, Rosenstengel.
205. TECHNIQUES IN COUNSELING (3). Prerequisites, appropriate psychology courses and Education 105.
Three hours a week, winter quarter. Messrs. Perry, Ellis.
206. GENERAL PRINCIPLES OF OCCUPATIONAL DIAGNOSIS AND GUIDANCE (5). Prerequisites, practical experience and at least two years of education and psychology.
Fall quarter. Mr. Perry.
207. STUDENT PERSONNEL ADMINISTRATION (3). Prerequisites, appropriate psychology courses and Education 205.
Three hours a week, spring quarter. Messrs. Perry, Ellis.
- 208ab. STATE AND COUNTY SCHOOL ORGANIZATION (5). Prerequisite, Education 101 or its equivalent.
Winter quarter. Mr. Rosenstengel.
- 209ab. BUSINESS MANAGEMENT AND SCHOOL FINANCE (3 or 5). Prerequisite, Education 101 or its equivalent.
Three or five hours a week, winter quarter. Messrs. Phillips, Rosenstengel.

210ab. MANAGEMENT OF SCHOOL PLANT AND EQUIPMENT (5). Prerequisite, Education 101 or its equivalent.

Fall quarter. Mr. Rosenstengel.

224. (See under Department of Physical Education).

225. (See under Department of Physical Education).

245. COMPARATIVE EDUCATION (5).

Spring quarter. Mr. Knight.

265. INVESTIGATIONS IN READING (3).

Three hours a week, fall quarter. Messrs. Hunt, Brown.

267ab. EDUCATION WORKSHOP (5 or 10).

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.

271ab. PROBLEMS IN EDUCATIONAL PSYCHOLOGY I (5).

a. Individual Differences (3).

b. Problems of Conduct (3).

Fall quarter. Mr. Jordan.

272ab. PROBLEMS IN EDUCATIONAL PSYCHOLOGY II (5). Prerequisite, one and preferably two courses in educational and developmental psychology.

a. Psychology of Learning (Theoretical Aspects) (3).

b. Psychology of Learning (Practical Applications) (3).

Winter quarter. Mr. Jordan.

273. MENTAL MEASUREMENTS (5). Prerequisite, one course in educational psychology or a course in general psychology.

Spring quarter. Messrs. Jordan, Ellis.

274ab. TECHNIQUES IN THE ANALYSIS OF THE INDIVIDUAL (3 or 5). Prerequisite, Education 105.

a. The Use of Tests in the Analysis of the Individual.

b. The Individual Inventory.

Spring quarter. Professor Ellis.

275. ADMINISTRATIVE ASPECTS OF THE GUIDANCE PROGRAM (3). Prerequisite, Education 105.

Three hours a week, spring quarter. Mr. Ellis.

277ab. ADVANCED THEORY AND PRACTICE IN EDUCATING THE SPEECH HANDICAPPED (5).

a. Organic (3).

b. Functional (3).

(Not offered in 1951-1952.) *Winter or spring quarter.*

285. INVESTIGATIONS AND TRENDS IN TEACHING THE SOCIAL STUDIES (3).

Three hours a week, winter quarter. Mr. King.

291. INVESTIGATIONS AND TRENDS IN TEACHING NATURAL SCIENCE (3).

(Not offered in 1951-1952.) *Three hours a week, winter quarter.*

296ab. SCHOOL ORGANIZATION AND ADMINISTRATION (The Elementary and Secondary Principalship) (6).

Six hours a week, winter quarter. Messrs. Gwynn, Plemmons, Perry.

298ab. SUPERVISION OF INSTRUCTION (3 or 5).

Three or five hours a week, fall and winter quarters. Messrs. Perry, Gwynn, Phillips.

303ab. PROBLEMS IN EDUCATIONAL ADMINISTRATION (3 or 5). Prerequisites, Education 101 or its equivalent and one other course in educational administration.

Three hours a week, any quarter. Messrs. Phillips, Rosenstengel, Plemmons, Hurlburt.

304ab. PROBLEMS IN EDUCATIONAL MEASUREMENT (3). Prerequisite, Education 174.

Three hours a week, any quarter. Mr. Jordan.

341ab. FOUNDATIONS OF MODERN EDUCATION (3 or 5). Prerequisites, Education 142 and 143, or equivalent.

Three hours a week, fall, winter, and spring quarters. Mr. Knight.

350ab. PROBLEMS IN ELEMENTARY EDUCATION (3 or 5). Prerequisites, two courses in undergraduate education.

Three hours a week, any quarter. Messrs. Perry, Brown, Miss Savage.

360ab. PROBLEMS IN THE CURRICULUM (3 or 5). Prerequisites, two courses in graduate education.

Three hours a week, any quarter. Mr. Gwynn, Miss McCuskey.

375. THESIS COURSE (maximum with thesis 5).

Any quarter. Members of the graduate faculty.

376ab. SEMINAR IN EDUCATION (3 to 5). Prerequisites, two courses in graduate education.

Three or five hours a week, any quarter. Members of the graduate faculty.

398ab. PROBLEMS IN SECONDARY EDUCATION (3 to 5). Prerequisites, two courses in graduate secondary education.

Three hours a week, every quarter. Messrs. Gwynn, Plemmons.

DEPARTMENT OF ENGLISH

Professors: C. P. LYONS, *G. C. TAYLOR, *G. R. COFFMAN, A. P. HUDSON, A. C. HOWELL, DOUGALD MACMILLAN, R. P. BOND, RAYMOND ADAMS, W. A. OLSEN, †H. K. RUSSELL, SAMUEL SELDEN, WILLIAM WELLS, R. B. SHARPE, †N. E. ELIASON, EARL WYNN, E. W. TALBERT, FLOYD STOVALL, ROBERT PRATT, J. O. BAILEY

Associate Professors: E. H. HARTSELL, G. F. HORNER, N. W. MATTIS, L. A. COTTEN, C. H. HOLMAN

Assistant Professors: CHARLES EATON, MACON CHEEK, †J. M. STEADMAN, III

Instructors: J. R. GASKIN, RICHARD GEEHERN, G. M. HARPER, MARY FRANCES MINTON, F. H. MOORE, FRANCES PEDIGO, JESSIE REHDER

Part-time Instructors: J. A. ALLEN, J. Q. ANDERSON, ROY AYCOCK, W. J. BARNHART, J. C. BRODERICK, DAN COLLINS, T. E. CRAWLEY, F. B. DEDMOND, L. E. DOLLARHIDE, R. L. DUNLAP, ROBERT ESPY, M. L. FELDMAN, W. F. GOODYKOONTZ, T. L. HUGUELET, KERMIT HUNTER, GUY OWEN, W. M. PETERSON, J. W. PLATT, L. H. POTTER, LOGAN PRATT, R. P. ROGERS, J. B. SCHOLES, J. B. STROUP, J. A. VIVERETTE, T. E. WALKER, THOMAS WHEELER

Teaching Fellows: BARBARA BENNETT, RUTH FAUROT, THADDEUS SEYMOUR

Research Assistant: LORAIN E. ANDERSON

Graduate Assistants: LOIS BARR, CAMA CLARKSON, W. E. MORRIS

Courses for Undergraduates

Prerequisites: English 1, 2, and 3 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: A student choosing English as his major field should take (a) English 50; (b) one of the following: English 91, 93, 94, 95, 163; (c) one of the following: English 70, 75, 112; (d) one of the following: English 79, 81, 82, 83, 84, 88, 89, 111, 121; (e) four courses chosen as free electives from the advanced courses offered by the department (courses numbered from 40 to 199, with the exception of 51 and 59). In accordance with University regulations a student must have a grade of C or better in at least thirty quarter hours in the major.

Majors in English in the School of Education: Students aiming at a certificate in the public high schools, with a major in English should

* Kenan Professor Emeritus.

† Absent on leave, 1951-1952.

‡ Absent on leave for military duty.

consult the School of Education for the courses in education and for the minor. The English requirements are: (a) English 50; (b) English 96; (c) English 81 or 82; (d) one of the following: English 40, 41, 44; (e) one of the following: English 70, 75, 83, 91, 93; (f) one of the following: English 84, 88, 89, 94, 97, 98; (g) one elective in English. In accordance with University regulations a student must have a grade of C or better in at least thirty quarter hours in the major.

Minors in English in the School of Education: Students who choose a minor program in English will take: (a) English 50; (b) English 96; (c) English 81 or 82; (d) one of the following: English 83, 84, 88, 89, or by permission an elective in English provided the student has had English literature in the General College.

R. FRESHMAN ENGLISH: REMEDIAL.

Required of all freshmen who fail to qualify for English 1.

To students completing the course with grades of A or B, credit for English 1 will be allowed.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and the freshmen staff.

1. FRESHMAN ENGLISH: COMPOSITION AND RHETORIC (5).

Required of all freshmen except those qualifying for English 2.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and the freshmen staff.

2A. FRESHMAN ENGLISH: COMPOSITION AND RHETORIC (5).

Required of all freshmen who have passed English 1 or have been exempted from it and who do not elect English 2B.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and the freshmen staff.

2B. FRESHMAN ENGLISH: BUSINESS WRITING (5).

Required of all freshmen who have passed English 1 or have been exempted from it and who do not elect English 2A.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and the freshmen staff.

3. ENGLISH LITERATURE (5). Prerequisite, English 2.

Substantial readings in Chaucer, Shakespeare, and Milton. Required of all sophomores.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and staff.

4. ENGLISH LITERATURE (5). Prerequisites, English 2 and 3.

Substantial readings in major writers of the nineteenth century. Sophomore option.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and staff.

5. ENGLISH AND AMERICAN FICTION (5). Prerequisites, English 2 and 3.

Readings in the novel (Hawthorne, Hardy, Twain, Maugham, Wolfe) and in selected contemporary short stories. Sophomore option.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and staff.

6. AMERICAN LITERATURE (5). Prerequisites, English 2 and 3.

Substantial readings in Poe, Hawthorne, Whitman, Twain, Frost, and Hemingway. Sophomore option. This course will not satisfy the American literature requirements for the teacher's certificate.

Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and staff.

40. VOICE TRAINING (5).
Fall, winter, or spring quarter. Laboratory fee, \$1.50. Mr. Mattis.
41. THE ORAL INTERPRETATION OF LITERATURE (5).
Fall or spring quarter. Laboratory fee, \$1.50. Mr. Mattis.
44. PUBLIC SPEAKING (5).
 Composition and delivery of original speeches.
Fall, winter, or spring quarter. Laboratory fee, \$1.50. Messrs. Olsen, Mattis.
50. SHAKESPEARE (5).
 Study of about twenty representative comedies, histories, and tragedies.
Fall quarter, Mr. Lyons; winter quarter, Mr. Talbert; spring quarter, Mr. Lyons.
51. ADVANCED COMPOSITION: PRACTICAL EXPOSITION (5).
 Primarily for business administration and pharmacy students. Business forms, letters, reports, professional papers, and articles for the press. This course cannot be counted toward an English major.
Fall, winter, and spring quarters. Mr. Hartsell, Miss Rehder.
52. ADVANCED COMPOSITION: THE TECHNIQUE OF EXPOSITION (5).
 Prerequisite, permission of the instructor.
 Expository writing for students desiring practice in the organization of material.
Winter quarter, Mr. Cheek; spring quarter, Mr. Bailey.
53. CREATIVE WRITING I: INTRODUCTION TO THE SHORT STORY (5). Prerequisite, permission of the instructor.
 Class discussion of classic short stories and general literary principles; technical training in the writing of original short stories.
Fall and spring quarters. Mr. Eaton.
54. CREATIVE WRITING II (5). Prerequisite, permission of the instructor.
 An advanced course in imaginative writing for students who have had some previous experience in this field.
Winter quarter. Mr. Eaton.
55. ADVANCED VOICE TRAINING (5). Prerequisite, English 40 or permission of the instructor.
Winter quarter. Laboratory fee, \$1.50. Mr. Mattis.
56. ADVANCED PUBLIC SPEAKING (5). Prerequisite, English 44 or permission of the instructor.
 Composition and delivery of original speeches. Political speeches and analysis of propaganda techniques. Elementary semantics.
Winter quarter. Laboratory fee, \$1.50. Mr. Olsen.
59. SCIENTIFIC WRITING (5). 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 and winter quarters. Mr. Howell.
70. CHAUCER (5).
 The poet as literary artist in *The Canterbury Tales* and other selected works.
Fall quarter. Mr. Pratt.

72-73. COURSE FOR HONORS (10). See the Program for Honors Work in the Division of the Humanities.

Readings and the preparation of an essay under the direction of departmental advisers.

75. MILTON (5).

The works of Milton studied in the light of the life, times, and culture of the poet.

Winter quarter, Mr. Howell; *spring quarter*, Mr. Check.

79. ENGLISH LITERATURE, 1890-1920 (5).

Hardy, Henley, Housman, Kipling, Wilde, Shaw, Conrad, Galsworthy, and the Irish Revival.

Spring quarter. Mr. Cotten.

81. AMERICAN LITERATURE (5).

A survey, 1830 to 1855, with especial attention to Poe, Emerson, Thoreau, Lowell, Hawthorne, and Melville.

Fall quarter, Mr. Holman; *winter quarter*, Mr. Horner; *spring quarter*, Mr. Adams.

82. AMERICAN LITERATURE (5).

A survey from Whitman to the present, with emphasis on the literature of the South, the local-color movement, the rise of realism, and the social novel after 1880.

Fall quarter, Mr. Adams; *winter quarter*, Mr. Stovall.

83. PROSE AND POETRY OF THE CLASSICAL PERIOD (5).

Addison, Steele, Swift, Pope, Johnson, Boswell, Gray, Cowper.

Winter quarter. Mr. MacMillan.

84. THE CHIEF ROMANTIC POETS (5).

Wordsworth, Coleridge, Byron, Shelley, and Keats.

Fall quarter. Mr. Hudson.

87. THE LITERARY ASPECTS OF THE BIBLE (5).

The Old Testament and the New Testament will be taken up in alternate years.

Spring quarter. Mr. Howell.

88. VICTORIAN LITERATURE I, 1832-1860 (5).

Carlyle, Tennyson, Browning, Dickens, Thackeray, and Charlotte Brontë.

Fall quarter. Mr. Bailey.

89. VICTORIAN LITERATURE II, 1860-1890 (5).

Ruskin, Arnold, Rossetti, Morris, Swinburne, George Eliot, and Meredith.

Winter quarter. Mr. Cotten.

91. THE ENGLISH NOVEL (5).

The English novel from Defoe to Hardy.

Winter and spring quarters. Mr. Holman.

93. THE ENGLISH DRAMA (5).

The English drama from the beginnings to 1900.

Fall quarter. Mr. MacMillan.

94. PRINCIPLES OF LITERARY ART (5).

A study of the theories of literature through their application to specific English masterpieces.

Winter quarter. Mr. Bond.

95. THE ENGLISH LANGUAGE (5).

English of the present day, standard and dialectal, its historical background and development, British and American.

Spring quarter. Mr. Gaskin.

96. ENGLISH GRAMMAR (5).

A study of modern English grammar especially for prospective teachers; bases of grammatical rules, perspective *vs.* descriptive grammar, relationship of grammar and composition.

Fall quarter. Mr. Gaskin.

97. RECENT BRITISH AND AMERICAN PROSE (5).

A study of prose writings, chiefly fiction, since 1920.

Fall quarter, Mr. Holman; *spring quarter,* Miss Rehder.

98. RECENT BRITISH AND AMERICAN POETRY (5).

A study of the poetry written in English since 1920.

Winter quarter. Mr. Cotten.

Courses for Graduates and Advanced Undergraduates

NOTE: Except by permission juniors will not be admitted to these courses.

101. OLD ENGLISH GRAMMAR AND READINGS (5).

Primarily a linguistic course, the study of Old English grammar, but includes some translation of prose and poetry.

Fall quarter. Mr. Eliason.

105. MEDIEVAL ROMANCE IN ENGLISH (5).

A survey of romance materials in English literature, with particular attention to the Arthurian tradition.

(Not offered in 1951-1952.) Mr. Pratt.

111. ENGLISH LITERATURE OF THE RENAISSANCE (5).

A survey of the literature of the Elizabethan period, exclusive of the drama.

Fall quarter. Mr. Wells.

112. SPENSER (5).

The works of Spenser studied in the light of the life, times, and culture of the poet.

Spring quarter. Mr. Wells.

113. ENGLISH DRAMA TO 1600 (5).

English drama in the sixteenth century, with preliminary consideration of the medieval religious drama.

Fall quarter. Mr. Talbert.

114. ENGLISH DRAMA, 1600-1642 (5).

Jacobean and Caroline drama, with emphasis on Jonson, Chapman, Webster, Beaumont, Fletcher, Massinger, and Ford.

Winter quarter. Mr. Sharpe.

121. ENGLISH LITERATURE, 1616-1700 (5).

The non-dramatic literature of the period.

Spring quarter. Mr. Howell.

131. ENGLISH LITERATURE, 1700-1780 (5).

The non-dramatic literature of the period.

Fall quarter. Mr. Bond or Mr. MacMillan.

133. RESTORATION AND EIGHTEENTH-CENTURY DRAMA (5).

A study of the drama from 1660 to 1780.

Spring quarter. Mr. MacMillan.

148. NINETEENTH-CENTURY DRAMA, ENGLISH AND AMERICAN (5).

A survey of dramatic movements and writers from 1800 to 1900.

Fall quarter. Mr. Bailey.

153. SOUTHERN AMERICAN LITERATURE (5).

The three centuries from John Smith to Ellen Glasgow, treating major trends and authors.

(Not offered in 1951-1952.) Mr. Stovall.

155. THE AMERICAN NOVEL (5).

The American novel from its beginnings to the twentieth century.

Fall quarter. Mr. Stovall.

163. LITERARY CRITICISM (5).

The principles which have animated classical, romantic, and realistic literature.

Fall quarter. Mr. Bond.

164. BRITISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY
(Dramatic Art 164) (5).

A survey of dramatic movements and writers from 1900 to the present.

Spring quarter. Mr. Sharpe.

167. THE ENGLISH BALLAD (5).

English and Scottish popular ballads and their survivals in America, particularly in North Carolina.

Spring quarter. Mr. Hudson.

Courses for Graduates

201. STUDIES IN OLD ENGLISH LITERATURE: BEOWULF (5). Prerequisite, English 101.

Primarily a literary course; the whole body of Old English literature surveyed, but Beowulf given major attention.

Winter quarter. Mr. Eliason.

202. MIDDLE ENGLISH (5).

The literature of the period in relation to its social, political, and religious background.

Spring quarter. Mr. Pratt.

204. HISTORY OF THE ENGLISH LANGUAGE (5). Prerequisite, English 101 or permission of the instructor.

For students of linguistics and others wishing a thorough background for literary studies; an intensive study of the language according to historical methods.

Spring quarter. Mr. Eliason.

208. CHAUCER (5).

A reading of Chaucer's works with attention to critical, historical, and linguistic problems involved in their interpretation.

Winter quarter. Mr. Pratt.

225. MILTON (5).

An intensive study of Milton's works and thoughts.

Winter quarter. Mr. Wells.

231. SHAKESPEARE: THE COMEDIES (5).
Emphasis on historical and critical problems presented by Shakespeare's works.
Spring quarter. Mr. Talbert.
232. SHAKESPEARE: THE TRAGEDIES (5).
Emphasis on historical and critical problems presented by Shakespeare's works.
Winter quarter. Mr. Lyons.
241. ENGLISH LITERATURE, 1780-1839 (5).
A survey of the Romantic period, with especial attention to the greater poets.
Winter quarter. Mr. Hudson.
243. VICTORIAN LITERATURE: POETRY (5).
The major Victorian poets with emphasis on Tennyson and Browning.
Fall quarter. Mr. Cotten.
244. VICTORIAN LITERATURE: PROSE (5).
Primarily Ruskin, Morris, Eliot, Arnold, Hardy.
Winter quarter. Mr. Bailey.
282. EARLY AMERICAN LITERATURE (5).
A survey of the colonial, revolutionary, and early national periods, including Bryant, Irving, and Cooper.
Fall quarter. Mr. Horner.
283. AMERICAN LITERATURE, 1830-1855 (5).
English 282 precedes this survey, but is not prerequisite. Poe, Emerson, Thoreau, Longfellow, Lowell, and Hawthorne.
Winter quarter. Mr. Adams.
284. AMERICAN LITERATURE, 1855-1900 (5).
Chief authors: Melville, Whitman, Mark Twain, Bret Harte, Howells, and James. Realism, literary criticism, and the dominance of magazines.
Spring quarter. Mr. Stovall.
307. SEMINAR: STUDIES IN MEDIEVAL LITERATURE (5).
Research in special problems in the vernacular literature of the Middle Ages.
Winter quarter. Mr. Pratt.
310. I: SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (5).
Fall quarter. Messrs. Lyons, Talbert.
310. II: SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (5).
Spring quarter. Messrs. Lyons, Talbert.
312. SEMINAR: STUDIES IN SEVENTEENTH-CENTURY LITERATURE (5).
Fall quarter. Mr. Howell.
313. SEMINAR: STUDIES IN EIGHTEENTH-CENTURY LITERATURE (5).
Special problems in the literary and intellectual movements of the century.
Spring quarter. Mr. MacMillan or Mr. Bond.
317. SEMINAR: STUDIES IN NINETEENTH-CENTURY ROMANTICISM IN ENGLAND (5).
Two divisions in alternate years: Byron and Shelley problems; Wordsworth and Coleridge problems.
Spring quarter. Mr. Hudson.

318. SEMINAR: STUDIES IN AMERICAN LITERATURE (5).

Winter quarter. Mr. Adams or Mr. Stovall.

320. SEMINAR: STUDIES IN VICTORIAN LITERATURE (5).

The study of a Victorian writer selected by the seminar.

By special arrangement.

325. SEMINAR: MODERN DRAMA (Dramatic Art 325) (5).

Fall quarter. Messrs. Sharpe, Selden.

331. BIBLIOGRAPHY AND METHODOLOGY (5). 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 quarter, Mr. Bond; *winter quarter,* Mr. MacMillan.

340. SPECIAL READINGS (5).

341. SPECIAL RESEARCH (5).

Investigation in a special field, usually in the course of writing a thesis or dissertation, under the direction of a member of the department.

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 W. W. PIERSON, *Chairman*

Professors: A. P. HUDSON, *Secretary*, *J. P. GILLIN, U. T. HOLMES,
RICHARD JENTE, G. B. JOHNSON, J. E. KELLER, J. P. SCHINHAN

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 one 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

104. FOLK MUSIC (Music 104) (3).

A comparative study of the folk songs of various nations, with special emphasis on the American folk music of the South. Lectures, readings, and the study of music available in print or on phonograph records.

To be arranged. Mr. Schinhan.

* Absent on leave, fall and winter quarters, 1951-1952.

105. CELTIC: OLD IRISH (French 105) (5).

Winter quarter. Mr. Holmes.

122. CULTURAL ANTHROPOLOGY (Anthropology 122) (5).

Winter quarter. Materials fee, \$1.00. Messrs. Gillin, Johnson.

127. NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (Anthropology 127) (5). Prerequisite, Folklore 185. Not open to students credited with Anthropology 127 prior to fall quarter, 1950.

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.

(This course replaces, in part, former Anthropology 127.)

(1952-1953 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Gillin.

128. FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (5). Prerequisite, Folklore 185.

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. Consideration is given to this design for living in various parts of the world, with particular reference to the folk culture of southeastern United States.

(1952-1953 and alternate years.) *Fall quarter. Materials fee, \$1.00.* Mr. Gillin.

132. NATIVE PEOPLES AND CULTURES OF SOUTH AMERICA (Anthropology 132) (5). Prerequisite, Folklore 185. Not open to students credited with Anthropology 127 prior to fall quarter, 1950.

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.

(This course replaces, in part, former Anthropology 127.)

(1951-1952 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Gillin.

167. THE ENGLISH BALLAD (5).

English and Scottish popular ballads and their survivals in America, particularly in North Carolina.

Spring quarter. Mr. Hudson.

185. INTRODUCTION TO FOLKLORE (Comparative Literature 185) (5).

Definitions and examples of folklore in general and its various categories. Collection, classification, study, and analysis of folklore materials. Bibliography.

(1952-1953 and alternate years.) *Fall quarter.* Mr. Keller.

Courses for Graduates

203. PROVERBIAL SPEECH (5). Prerequisite, Folklore 185.

Study of origin, development, use, and dissemination of proverbs, maxims, Wellerisms, and proverbial phrases, their importance in life and literature, with emphasis on folk wit and humor.

Spring quarter. Mr. Jente.

*204-205. INTRODUCTION TO COMPARATIVE MUSICOLOGY (Music 204-205) (6). Prerequisite, a reading knowledge of one or more foreign languages, preferably German, Spanish, or French, a working knowledge of the theory and history of music, and permission of the instructor.

Three hours a week, fall and winter quarters. Mr. Schinhan.

* Will be given as the demand warrants.

210. FOLK SOCIOLOGY (Sociology 210) (5). Prerequisite, Folklore 185.
Spring quarter. Mr. Odum.

230. RACE AND CULTURE CONTACTS (Anthropology 230) (5). Prerequisite, Folklore 185.

This course describes and analyzes the problems of acculturation arising from the contacts of peoples of different racial or cultural heritages, with particular reference to Negro, white, and Indian relations in the New World.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Johnson.

314. FOLK NARRATIVE (5). Prerequisite, Folklore 185.

Study of origin, development, and dissemination of myths, legends, and folktales, with a survey of their use in masterpieces of world literature.

(1951-1952 and alternate years.) *Spring quarter.* Mr. Keller.

395. RESEARCH (5).

Research in a special field under the direction of members of the staff.

FRENCH

(See Romance Languages)

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Professors: S. T. EMORY, G. R. MACCARTHY, *W. A. WHITE

Associate Professors: J. S. GIBSON, R. L. INGRAM

Assistant Professors: D. G. BASILE, V. I. MANN

Instructor: W. H. WHEELER

Part-time Instructors: F. O. BOWMAN, JR., R. E. DAHLBERG, B. E. LOGAN

Teaching Fellow: M. E. SIMONS

Graduate Assistants: R. J. COUNCILL, E. O. GOOCH, W. G. HOOKS, J. M. JENNINGS, W. A. OLSEN, JR., J. E. PAYNE, W. W. TINGLE

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 41 and 42 (Geology 1 may be substituted for 41 if a grade of B or better is made on the course); (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.

* Absent on leave, winter quarter, 1952.

For B.S. in Geology the following are required:

GENERAL COLLEGE

English 1, 2, 3, 4	Geology 41, 42
Foreign language (4 courses) (French, German, or Spanish)	Mathematics 7, 8
Chemistry 1-2-31	Geography 38
Social Science 1-2	Physical Education
	Hygiene

UPPER COLLEGE

English 59	Geology 109, 110, 111, 112
Physics 24-25	Geography 171 or equivalent
Geology 101, 103, 104	Geology 128-129 (summer field course)
Geology 105, 106, 107	Elective—4 courses, not 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 and Geology 42.

1. ELEMENTS OF GEOLOGY (5). Freshman elective. This course is intended for the non-geology major.

Minerals, rocks, topographic maps, the development of land forms, geologic processes, history of the earth.

Four lecture and two laboratory hours a week, each quarter. Laboratory fee, \$3.50. Staff.

41. INTRODUCTION TO PHYSICAL GEOLOGY (6).

Nature and origin of minerals and rocks, volcanoes, earthquakes, interior of the earth, origin of mountains, soil development, subsurface water, coastal features, evolution of landscapes, effects of glaciers, streams, wind.

Four lecture and four laboratory hours a week, each quarter. Laboratory fee, \$3.50 a quarter. Staff.

42. INTRODUCTION TO HISTORICAL GEOLOGY (6).

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.

Four lecture and four laboratory hours a week, each quarter. Laboratory fee, \$3.50. Mr. Wheeler.

Courses for Graduates and Advanced Undergraduates

101. MINERALOGY (6). Prerequisites, Chemistry 1-2 and Geology 41, or special permission.

Three lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Mann.

103. GEOLOGIC FIELD METHODS (5). Prerequisites, Mathematics 8 and Geology 42.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. Ingram.

104. GEOMORPHOLOGY (6). Prerequisites, Geology 41, general physics.

Four lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$5.00. Mr. White.

105. STRATIGRAPHY (5). Prerequisite, Geology 42.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$5.00. Mr. Wheeler.

106. INVERTEBRATE PALEONTOLOGY (5). Prerequisite, Geology 42.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. Wheeler.

107. STRUCTURAL GEOLOGY (5). Prerequisites, Geology 103, general physics.

Four lecture and two laboratory hours a week, fall quarter. Laboratory fee, \$5.00. Mr. MacCarthy.

109. ELEMENTS OF GEOPHYSICS (5). Prerequisites, Geology 107, general physics.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. MacCarthy.

110. IGNEOUS ROCKS (6). Prerequisites, Geology 42 and 101.

The megascopic description, the origin, and economic geology of the igneous rocks.

Four lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$5.00. Mr. Mann.

111. SEDIMENTARY ROCKS (3). Prerequisites, Geology 42 and 101.

The megascopic description, the origin, and economic geology of the sedimentary rocks.

Two lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Ingram.

112. METAMORPHIC ROCKS (3). Prerequisites, Geology 110 and 111.

The megascopic description, the origin, and economic geology of the metamorphic rocks.

Two lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Mann.

117. ROCK WEATHERING AND SOIL FORMATION (5). Prerequisites, Geology 110, 111, 112.

Includes x-ray diffraction studies of clay minerals.

(1952-1953 and alternate years.) *Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Ingram.*

122. PHYSIOGRAPHY OF THE EASTERN UNITED STATES (5). Prerequisites, Geology 41, 42, and 104.

(1953-1954 and alternate years.) *Winter quarter. Materials fee, \$3.50. Mr. White.*

123. PHYSIOGRAPHY OF THE WESTERN UNITED STATES (5). Prerequisites, Geology 41, 42, and 104.

(1953-1954 and alternate years.) *Spring quarter. Materials fee, \$3.50. Mr. White.*

127. PETROLEUM GEOLOGY (5). Prerequisites, Geology 105, 107, and 111. (1952-1953 and alternate years.) *Fall quarter. Laboratory fee, \$2.00.* Mr. Ingram.
- 128-129. SUMMER FIELD COURSES IN GEOLOGY (12). Prerequisites, Geology 101, 103, 110, 111-112.
Equivalent to twelve hours a week for one quarter. Staff.
144. OPTICAL MINERALOGY (5). Prerequisites, Geology 101, Physics 25.
Two lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$5.00. Mr. Mann.
145. IGNEOUS PETROLOGY (5). Prerequisites, Geology 110, 144.
Megascopic and microscopic study of igneous rocks.
(1952-1953 and alternate years.) *Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$5.00.* Mr. Mann.
146. METAMORPHIC PETROLOGY (5). Prerequisites, Geology 112 and 144, permission of instructor.
Megascopic and microscopic study of metamorphic rocks.
(1952-1953 and alternate years.) *Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$5.00.* Mr. Mann.
147. DETERMINATIVE MINERALOGY (5). Prerequisite, Geology 101.
Ten laboratory hours a week, on demand. Laboratory fee, \$10.00. Mr. Mann.
166. VULCANOLOGY (5). Prerequisites, Geology 41 and, except by special permission, Geology 110.
This course serves as an introduction to vulcanism and related phenomena.
Winter quarter. Materials fee, \$3.50. Mr. MacCarthy.
- 168, 169. FIELD WORK IN GEOPHYSICS (5 each). Prerequisites, Geology 109, general physics.
Given any quarter, on application. Materials fee, \$5.00 each course. Mr. MacCarthy.

Courses for Graduates

- 221, 222, 223. ADVANCED STRUCTURAL GEOLOGY (5 each). Prerequisites, Geology 104, 105, 106, 107.
(1953-1954 and alternate years.) *Four lecture and two laboratory hours a week. Laboratory fee, \$5.00 each quarter.* Mr. MacCarthy.
- 224, 225, 226. ADVANCED ECONOMIC GEOLOGY (5 each). Prerequisites, Geology 104, 105, 112.
(1953-1954 and alternate years.) *Three lecture and four laboratory hours a week. Laboratory fee, \$3.50 each quarter.* Mr. Mann.
- 241, 242, 243. ADVANCED MINERALOGY (5 each). Prerequisites, Geology 144, 145, except by permission.
(Not offered in 1952-1953.) *Two lecture and six laboratory hours a week. Laboratory fee, \$5.00 each quarter.* Mr. Mann.
- 244, 245, 246. ADVANCED PETROLOGY (5 each). Prerequisites, Geology 144, 145.
(Not offered in 1952-1953.) *Two lecture and six laboratory hours a week. Laboratory fee, \$5.00 each quarter.* Mr. Mann.

247, 248, 249. SEDIMENTATION (5 each). Prerequisites, Geology 105, 106, 111. (1951-1952 and alternate years.) *Four lecture and two laboratory hours a week. Laboratory fee, \$5.00 each quarter.* Mr. Ingram.

261, 262. APPLIED GEOPHYSICS (5 each). Prerequisites, Geology 109, mathematics through calculus.

Three lecture and four laboratory hours a week, winter and spring quarters, on demand. Laboratory fee, \$5.00 each quarter. Mr. MacCarthy; assistant.

265. THE PHYSICS OF THE EARTH: GEODYNAMICS (5). Prerequisite, Geology 107, except by special permission.

Winter quarter. Materials fee, \$3.50. Mr. MacCarthy.

271, 272, 273. ADVANCED GEOMORPHOLOGY (5 each). Prerequisites, Geology 104, 107.

(1952-1953 and alternate years.) *Materials fee, \$2.00 each quarter.* Mr. White.

281, 282, 283. STRATIGRAPHY OF NORTH AMERICA (5 each). Prerequisites, Geology 105, 106.

(1952-1953 and alternate years.) *Materials fee, \$3.50 each quarter.* Mr. Wheeler.

284. PRINCIPLES OF PALEONTOLOGY (5). Prerequisites, Zoology 42, Geology 106.

(1951-1952 and alternate years.) *Fall quarter. Materials fee, \$3.50.* Mr. Wheeler.

285, 286. ADVANCED PALEONTOLOGY (5 each). Prerequisite, Geology 106. (1953-1954 and alternate years.)

Three lecture and four laboratory hours a week, winter and spring quarters. Laboratory fee, \$5.00 each quarter. Mr. Wheeler.

288, 289. MICROPALAEONTOLOGY (5 each). Prerequisite, Geology 106.

(Not offered in 1952-1953.) *Three lecture and four laboratory hours a week. Laboratory fee, \$5.00 each quarter.* Mr. Wheeler.

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 (3 or more). Mr. MacCarthy.

329. RESEARCH IN ECONOMIC GEOLOGY (3 or more). Mr. Mann.

341. RESEARCH IN MINERALOGY (3 or more). Mr. Mann.

348. RESEARCH IN SEDIMENTATION (3 or more). Mr. Ingram.

349. RESEARCH IN PETROLOGY (3 or more). Mr. Mann.

361. RESEARCH IN GEOPHYSICS (3 or more). Mr. MacCarthy.

371. RESEARCH IN GEOMORPHOLOGY (3 or more). Mr. White.

381. RESEARCH IN STRATIGRAPHY (3 or more). Mr. Wheeler.

389. RESEARCH IN PALEONTOLOGY (3 or more). Mr. Wheeler.

GEOGRAPHY

For A.B. with major in geography there are required, in addition to Geography 38 and Geology 41 or 1, six courses in geography and six courses in allied studies, selected with the approval of the chair-

man of the department. Six courses must be taken outside the Division of Natural Science.

Geography 38 is recommended as preparation for all advanced geography courses.

Courses for Undergraduates

38. INTRODUCTION TO GEOGRAPHY (6). 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.

Five lecture and two laboratory hours a week, each quarter. Laboratory fee, \$3.00. Messrs. Emory, Gibson, Basile.

64. INTRODUCTION TO THE STUDY OF THE WEATHER (5). Natural science credit.

Three lecture and four laboratory hours a week. Laboratory fee, \$3.50. Mr. Gibson.

75. TRADE ROUTES AND TRADE CENTERS (5).

(Not offered 1952-1953.) *Materials fee, \$2.00. Mr. Emory.*

Courses for Graduates and Advanced Undergraduates

117. SOILS (5). Prerequisites, Geology 1 or 41, Chemistry 1-2, or equivalent. Natural science credit.

A study of the nature and geographic distribution of the soils of the world, with special emphasis on Southeastern United States.

Five hours of lecture and field work a week, fall quarter. Materials fee, \$5.00. Mr. Gibson.

118. LAND UTILIZATION MAPPING, RURAL OR URBAN (5).

Materials fee, \$3.50. Messrs. Gibson, Emory.

131. REGIONAL GEOGRAPHY OF THE SOUTH (5).

Winter quarter. Materials fee, \$2.00. Mr. Gibson.

132. LAND UTILIZATION AND SOIL CONSERVATION (5). Prerequisites, Geography 38 and Geology 41 or 1.

Spring quarter. Materials fee, \$2.00. Mr. Gibson.

151. URBAN GEOGRAPHY (5). Prerequisites, Geography 38 and two other courses in Geography. Restricted at present to majors in geography.

On demand. Materials fee, \$2.00. Mr. Emory.

152. ECONOMIC GEOGRAPHY (5).

The study of the distribution, production and utilization of the world's basic commodities. The effects of the interrelationship of the physical and cultural environment are emphasized.

Materials fee, \$2.00. Mr. Basile.

153. POLITICAL GEOGRAPHY (5).

Materials fee, \$2.00. Mr. Emory.

154. GEOGRAPHICAL INFLUENCES IN AMERICAN HISTORY (5).

Materials fee, \$2.00. Mr. Emory.

155. CLIMATOLOGY (5). Natural science credit.

Materials fee, \$2.00. Mr. Gibson.

156. CONSERVATION OF NATURAL RESOURCES (5).

A study of American natural resources, particularly those of North Carolina and the South, with emphasis on their use, their abuse, and their conservation.

Five hours of lecture and field work a week. Materials fee, \$2.00. Mr. Gibson.

157. REGIONAL GEOGRAPHY OF NORTH AMERICA (5).

Materials fee, \$2.00. Mr. Emory.

158. REGIONAL GEOGRAPHY OF EUROPE (5).

An examination of the geographical factors affecting the resources, activities and population distribution of Europe.

Materials fee, \$2.00. Mr. Basile.

159. REGIONAL GEOGRAPHY OF SOUTH AMERICA (5).

A study of the physical environment, the resources, both natural and cultural, and the activities which characterize the various countries and geographic regions of continental South America.

Materials fee, \$2.00. Mr. Basile.

160. REGIONAL GEOGRAPHY OF MIDDLE AMERICA (5). A study of the physical environment, the resources and activities which characterize the countries on the mainland from Mexico to Panama as well as the islands of the Caribbean.

Materials fee, \$2.00. Mr. Basile.

164. SYNOPTIC METEOROLOGY (5). Prerequisites, Geography 64, general physics or equivalent.

(Not offered in 1952-1953.) *Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$3.50.* Mr. Gibson.

171. CARTOGRAPHY (5).

A study of the basic qualities and functions of maps, through the application of drafting techniques to the fundamental principles of map construction.

Two lecture and six laboratory hours a week. Laboratory fee, \$5.00. Mr. Gibson.

178, 179. FIELD COURSES IN GEOGRAPHY (6 each). Prerequisites, Geography 38, Geology 41.

Messrs. Emory, Gibson, Basile.

Courses for Graduates

211. SPECIAL WORK IN GEOGRAPHY (3 or more). Prerequisites, Geography 38, and two courses in the one hundred bracket.

Messrs. Gibson, Emory.

301. SEMINAR (3 or more).

On demand. Staff.

302. URBAN FIELD COURSE (5). Prerequisite, graduate status in geography.

On demand. Mr. Emory.

311. RESEARCH IN GEOGRAPHY (3 or more).

Messrs. Emory, Gibson.

315. THESIS (5 or more).

DEPARTMENT OF GERMAN

Professors: RICHARD JENTE, G. S. LANE, W. P. FRIEDERICH

Associate Professor: F. E. COENEN

Assistant Professor: *H. W. REICHERT

Lecturer in German: ERNST MORWITZ

Part-time Instructors: W. W. ARNDT, A. H. CHAPPEL, W. F. FLEISCHMANN, L. N. GOULD

Teaching Fellow: FRANCIS J. BROOKE, III

Students are requested to consult with the departmental adviser in regard to the requirements for a major in German.

Courses for Undergraduates

1-2. ELEMENTARY GERMAN (10).

Five hours a week, each quarter. Mr. Reichert; instructors.

3, 4. INTERMEDIATE GERMAN (10).

Five hours a week, each quarter. Mr. Coenen; instructors.

21, 22. INTRODUCTION TO GERMAN LITERATURE (5 each). Prerequisite, German 4 or equivalent.

Five hours a week, each quarter. Messrs. Jente and Friederich.

31, 32. SPOKEN AND WRITTEN GERMAN (5 each). Prerequisite, German 4 or equivalent.

Five hours a week, each quarter. Mr. Reichert.

RUSSIAN 76, 77, 78. ELEMENTARY AND INTERMEDIATE RUSSIAN (5 each).

Five hours a week, on demand. Mr. Arndt.

Courses for Graduates and Advanced Undergraduates

109. GERMAN PROSE IN THE NINETEENTH CENTURY (5). Prerequisite, German 22 or the equivalent.

Winter quarter. Mr. Coenen.

111. GERMAN DRAMA IN THE NINETEENTH CENTURY (5). Prerequisite, German 22 or the equivalent.

Spring quarter. Mr. Coenen.

115. THE GERMAN LYRIC FROM GOETHE TO THE PRESENT (5). Prerequisite, German 22 or the equivalent.

Fall quarter. Mr. Jente.

121. GOETHE'S EARLY WORKS (5). Prerequisite, German 22 or the equivalent.

Winter quarter. Mr. Jente.

122. GOETHE'S LATER WORKS (5). Prerequisite, German 22 or the equivalent.

Spring quarter. Mr. Friederich.

* Absent on leave, 1951-1952.

131. LESSING AND HIS CONTEMPORARIES (5). Prerequisite, German 22 or the equivalent.

Spring quarter. Mr. Friederich.

137. SURVEY OF GERMAN LITERATURE IN ENGLISH TRANSLATION (Comparative Literature 137) (5).

Fall quarter. Mr. Friederich.

141. SCHILLER (5). Prerequisite, German 22 or the equivalent.

Spring quarter. Mr. Jente.

145. GERMAN PHONETICS (5). Prerequisite, German 31.

One quarter, on demand. Mr. Coenen.

151. CONTEMPORARY GERMAN LITERATURE (1885-1930) (5). Prerequisite, German 22 or the equivalent.

Winter quarter. Mr. Reichert.

155. GOETHE IN ENGLISH TRANSLATION (Comparative Literature 155) (5).

Spring quarter. Mr. Friederich.

161. HISTORY OF THE GERMAN LANGUAGE (5). Prerequisite, a good reading knowledge of German.

Fall quarter. Mr. Lane.

171. GERMAN CIVILIZATION (5). Prerequisite, a knowledge of spoken German.

Winter quarter. Mr. Friederich.

Courses for Graduates

201. MATERIALS AND METHODS OF RESEARCH (2½).

One quarter, according to need. Staff.

221. GOTHIC (5).

Fall quarter. Mr. Lane.

222. OLD HIGH GERMAN (5).

Winter quarter. Mr. Lane.

223. COMPARATIVE GERMANIC GRAMMAR (5).

Spring quarter, on demand. Mr. Lane.

232. OLD SAXON (5).

One quarter, on demand. Mr. Lane.

233, 234. OLD NORSE (5 each).

Two quarters, on demand. Mr. Lane.

235, 236. MIDDLE HIGH GERMAN (5 each).

Two quarters, on demand. Mr. Jente.

240, 241. READING COURSE (10).

Through the year. Mr. Friederich.

252. THE RENAISSANCE AND REFORMATION (1400-1600) (5).

Fall quarter. Mr. Jente.

253. FROM OPITZ TO GOTTSCHED (5).

Winter quarter. Mr. Friederich.

261. PHILOSOPHICAL INFLUENCES ON GERMAN CLASSICISM AND ROMANTICISM (5).

Spring quarter. Mr. Reichert.

262. THE ROMANTIC SCHOOL IN GERMANY (5).

Spring quarter. Mr. Coenen.

341, 342. SEMINAR IN LITERATURE (5 each).

Five hours a week, according to need. Messrs. Jente, Friederich.

361, 362. SEMINAR IN LINGUISTICS (5 each).

Five hours a week, according to need. Mr. Lane.

395. RESEARCH (5).

GREEK

(See Classics)

DEPARTMENT OF HISTORY

Professors: W. E. CALDWELL, *A. R. NEWSOME, W. W. PIERSON, M. B. GARRETT, L. C. MACKINNEY, H. T. LEFLER, F. M. GREEN, C. H. PEGG, CECIL JOHNSON, J. C. SITTERSON, †J. L. GODFREY, J. W. PATTON

Associate Professor: H. A. BIERCK, JR.

Assistant Professors: C. O. CATHEY (half-time in Social Science), J. E. KING (half-time in Social Science), F. W. KLINGBERG

Part-time Instructors: H. H. CUNNINGHAM, C. C. MARTIN, J. H. STREET, JR.

Teaching Fellows: W. M. DRAKE, A. M. DRUMM

Waddell Memorial Fellows: H. J. DOHERTY, P. A. MARRÔTTE

Social Science Staff

Instructors in Social Science Affiliated with Department of History:
J. R. CALDWELL, J. B. MACLEOD, W. M. GEER

Instructor in Social Science Affiliated with Department of Political Science: F. H. HARRIS

Part-time Instructors: H. H. CUNNINGHAM, E. H. GIBSON, C. C. MARTIN, E. A. MILES, F. A. RYAN, J. C. WALLACE, P. A. WALKER, W. L. CUPP (of the Department of Sociology), W. G. MCCALL (of the Department of Political Science), J. F. STEELMAN

Graduate Assistant: ANNE SPAKE

* Died August 5, 1951.

† Absent on leave, 1951-1952.

A student choosing history as his department of major interest must elect either American history or European history as his field of specialization and complete a minimum of six approved courses. The requirement for the major in American history shall be eight approved courses if the student has not completed History 21 and 22 or History 71 and 72 with a minimal grade of C; and for a major in European history a like number (eight) if the student has not completed History 41 and 42, or History 44 and 45, or History 48 and 49 with a minimal grade of C. The student must take at least four of his six or five of his eight courses in his field of specialization; he may elect the remaining two or three courses of his major from the other field. History 41 and 42 or History 44 and 45, or History 48 and 49 may be credited toward a major in American history, and History 71 and 72 may be credited toward a major in European history. Transfer students who major in history must take at least three approved history courses in the University.

Courses for Undergraduates

1-2. SOCIAL SCIENCE (10). Freshman requirement. Prerequisite to all other courses in history.

Five hours a week for two quarters. Fee for materials, \$1.00 each quarter. Members of staff.

21, 22. AMERICAN HISTORY: GENERAL COURSE (10). Sophomore elective.

Five hours a week, fall, winter, and spring quarters. Messrs. Johnson, Cathey, and Cunningham.

41, 42. ANCIENT AND MEDIEVAL HISTORY: GENERAL COURSE (10).

Sophomore elective, open to juniors and seniors.

Five hours a week, winter and spring quarters. Messrs. Caldwell and MacKinney.

44, 45. ENGLISH HISTORY: GENERAL COURSE (10). Sophomore elective,

open to juniors and seniors.

Five hours a week, winter and spring quarters. Mr. Godfrey. (Mr. Martin, 1952.)

48. MODERN EUROPEAN HISTORY, 1500-1815 (5). Sophomore elective,

open to juniors and seniors.

Fall quarter. Mr. Garrett.

49. MODERN EUROPEAN HISTORY SINCE 1815 (5). Sophomore elective,

open to juniors and seniors.

Spring quarter. Mr. Garrett.

51. HISTORY OF THE ANCIENT NEAR EAST (5).

Fall quarter. Mr. Caldwell.

52. HISTORY OF GREECE (5).

Winter quarter. Mr. Caldwell.

53. HISTORY OF ROME (5).

Spring quarter. Mr. Caldwell.

65. EUROPE IN THE CRUSADING AGE, 1000-1300 (5).

Fall quarter. Mr. MacKinney.

66. THE AGE OF THE RENAISSANCE, 1250-1550 (5).

Winter quarter. Mr. MacKinney.

71. AMERICAN HISTORY TO 1865: GENERAL COURSE (5). Junior-senior elective.

Both 21 and 71 may not be taken for credit by a student.

Fall, winter, and spring quarters. Messrs. Cathey, Lefler, Sitterson, Klingberg.

72. AMERICAN HISTORY SINCE 1865: GENERAL COURSE (5). Junior-senior elective.

Both 22 and 72 may not be taken for credit by a student.

Fall, winter, and spring quarters. Messrs. Cathey, Lefler, Sitterson, Klingberg.

90. LATIN AMERICAN HISTORY: COLONIAL AND REVOLUTIONARY PERIODS (5).

Fall quarter. Mr. Bierck.

91. LATIN AMERICAN COUNTRIES DURING THE NATIONAL PERIOD (5).

Winter quarter. Mr. Bierck.

97. HONORS COURSE (5).

Required of all students reading for honors in history.

98. HONORS COURSE (5).

Required of all students reading for honors in European history.

99. HONORS COURSE (5).

Required of all students reading for honors in United States history.

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) (5).

Winter quarter. Mr. Allen (of the Department of Classics).

110. EUROPEAN COLONIZATION OF THE NEW WORLD (5). Not open to graduate majors in American history.

Fall quarter. Mr. Johnson.

111. EARLY AMERICAN HISTORY, 1689-1789 (5). Not open to graduate majors in American history.

Winter quarter. Mr. Lefler.

112. UNITED STATES HISTORY, 1789-1848 (5). Not open to graduate majors in American history.

Spring quarter. (Mr. Sitterson, 1952.)

113. UNITED STATES HISTORY, 1848-1897 (5). Not open to graduate majors in American history.

Fall quarter. Mr. Klingberg.

114. UNITED STATES HISTORY SINCE 1897 (5). Not open to graduate majors in American history.

Winter quarter. Mr. Sitterson.

121. MEDIEVAL CULTURAL LIFE (5).
(1952-1953 and alternate years.) *Fall quarter*. Mr. MacKinney.
122. SOCIAL-ECONOMIC HISTORY OF THE MIDDLE AGES (5).
(1951-1952 and alternate years.) *Fall quarter*. Mr. MacKinney.
123. HISTORY OF SPAIN (5).
(1952-1953 and alternate years.) *Winter quarter*. Mr. MacKinney.
125. THE INTELLECTUAL HISTORY OF EUROPE, SIXTEENTH AND SEVENTEENTH CENTURIES (5).
Winter quarter. Mr. King.
126. THE INTELLECTUAL HISTORY OF EUROPE, EIGHTEENTH AND NINETEENTH CENTURIES (5).
Spring quarter. Mr. King.
130. EUROPEAN FOUNDATIONS OF MODERN EDUCATION (Education 142) (5).
Winter quarter. Mr. Knight (of the School of Education).
131. THE PROTESTANT REVOLT (5).
(1951-1952 and alternate years.) *Fall quarter*. Mr. Garrett.
132. THE RISE OF ABSOLUTISM IN EUROPE (5).
(1952-1953 and alternate years.) *Fall quarter*. Mr. Garrett.
133. THE FRENCH REVOLUTION AND THE NAPOLEONIC PERIOD (5).
Winter quarter. Mr. Garrett.
134. RISE OF DEMOCRACY AND NATIONALISM IN MODERN EUROPE (5).
(1952-1953 and alternate years.) *Spring quarter*. Mr. Garrett.
135. EUROPE, 1870-1918 (5).
Winter quarter. Mr. Garrett.
136. EUROPE SINCE 1918 (5).
Spring quarter. Mr. Pegg.
137. MEDIEVAL ENGLAND (5).
(1951-1952 and alternate years.) *Winter quarter*. Mr. MacKinney.
138. ENGLAND FROM 1485 TO 1760 (5).
(1951-1952 and alternate years.) *Fall quarter*. Mr. Godfrey (Mr. King, 1951.)
139. GREAT BRITAIN FROM 1760 TO 1867 (5).
(1952-1953 and alternate years.) *Fall quarter*. Mr. Godfrey.
140. GREAT BRITAIN SINCE 1867 (5).
(Not offered in 1951-1952.) *Winter quarter*. Mr. Godfrey.
141. DEVELOPMENT OF THE ENGLISH CONSTITUTION (Political Science 154) (5).
(Not offered in 1951-1952.) *Fall quarter*. Mr. Godfrey.
142. HISTORY OF MODERN RUSSIA (5).
Fall quarter. Mr. Pegg.
143. THE DIPLOMATIC HISTORY OF THE UNITED STATES (5).
Winter quarter. Mr. Johnson.

159. THE BRITISH EMPIRE (Political Science 159) (5).
(Not offered in 1951-1952.) *Spring quarter*. Mr. Godfrey.
161. NORTH CAROLINA I, 1584-1835 (5).
Winter quarter. Mr. Lefler.
162. NORTH CAROLINA II, 1835-1950 (5).
Spring quarter. Mr. Lefler.
163. THE OLD SOUTH (5).
(Not offered in 1951-1952.) *Fall quarter*. Mr. Green.
164. THE SOUTH SINCE RECONSTRUCTION (5).
Spring quarter. Mr. Green.
167. ECONOMIC HISTORY OF THE UNITED STATES I, 1783-1860 (5).
(1952-1953 and alternate years.) *Spring quarter*. Mr. Sitterson.
168. ECONOMIC HISTORY OF THE UNITED STATES II, 1860-1941 (5).
(1951-1952 and alternate years.) *Spring quarter*. Mr. Sitterson.
170. SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES
(Education 143) (5).
Fall quarter. Mr. Knight (of the School of Education).
171. ARGENTINA, BRAZIL, AND CHILE (5).
(1952-1953 and alternate years.) *Fall quarter*. Mr. Bierck.
172. INTER-AMERICAN ECONOMIC AND CULTURAL RELATIONS (5).
Spring quarter. Mr. Bierck.
173. THE BOLIVARIAN STATES SINCE INDEPENDENCE (5).
(1951-1952 and alternate years.) *Fall quarter*. Mr. Bierck.
175. THE CONSTITUTION OF THE UNITED STATES (Political Science
155) (5).
Fall, winter and spring quarters. *Materials fee, \$1.00*. Mr. Jenkins (of the Department of Political Science).

Courses for Graduates

- 201ab. HISTORIOGRAPHY (6). Required of all graduate students in history.
Three hours a week, fall and winter quarters. Messrs. Caldwell and Sitterson.
206. GREEK HISTORY, 500-146 B.C. (5).
(1952-1953.) *Fall quarter*. Mr. Caldwell.
207. ROMAN HISTORY, 133-31 B.C. (5).
(1952-1953.) *Spring quarter*. Mr. Caldwell.
208. ROMAN HISTORY, 31 B.C.-180 A.D. (5).
(1951-1952.) *Spring quarter*. Mr. Caldwell.
224. THE AGE OF THE RENAISSANCE, 1250-1550 (5).
Spring quarter. Mr. MacKinney.
233. THE FRENCH REVOLUTION AND THE NAPOLEONIC PERIOD (5).
(1951-1952 and alternate years.) *Spring quarter*. Mr. Garrett.
236. RECENT AND CONTEMPORARY EUROPEAN HISTORY (5).
Winter quarter. Mr. Pegg.

249. CIVILIZATION IN THE AMERICAN COLONIES (5).
(1952-1953 and alternate years.) *Spring quarter*. Mr. Lefler.
250. THE AMERICAN REVOLUTION AND ITS BACKGROUND (5).
(1951-1952 and alternate years.) *Spring quarter*. Mr. Lefler.
251. THE FEDERAL PERIOD, 1783-1815 (5).
(1952-1953 and alternate years.) *Fall quarter*.
252. THE MIDDLE PERIOD, 1815-1860 (5).
(1951-1952 and alternate years.) *Fall quarter*. (Mr. Green, 1951.)
254. CIVIL WAR AND RECONSTRUCTION (5).
(1952-1953 and alternate years.) *Winter quarter*. Mr. Green.
255. FOUNDATIONS OF MODERN AMERICA (5).
(1951-1952 and alternate years.) *Winter quarter*. Mr. Klingberg.
256. RECENT AND CONTEMPORARY UNITED STATES (5).
(1952-1953 and alternate years.) *Winter quarter*. Mr. Sitterson.
271. LATIN AMERICAN HISTORY: THE COLONIAL PERIOD AND THE WARS OF INDEPENDENCE (5).
(1951-1952 and alternate years.) *Spring quarter*. Mr. Bierck.
272. LATIN AMERICAN HISTORY: DEVELOPMENT OF NATIONALITY IN SOUTH AMERICA (5).
(1952-1953 and alternate years.) *Spring quarter*. Mr. Bierck.
- 301a. ANCIENT HISTORY (3).
Conference and reports.
Winter quarter. Mr. Caldwell.
- 311a. MEDIEVAL HISTORY (3).
Conference and reports.
Fall quarter. Mr. MacKinney.
- 321ab. MODERN EUROPEAN HISTORY (6).
Conference and reports.
Fall and winter quarters. Mr. Pegg.
- 323ab. MODERN ENGLISH HISTORY (6).
Conference and reports.
Fall and winter quarters. Mr. Godfrey.
- 331a. AMERICAN COLONIAL HISTORY (3).
Conference and reports.
Winter quarter. Mr. Lefler.
- 333ab. HISTORY OF THE UNITED STATES, 1783-1860 (6).
Conference and reports.
(Not offered in 1951-1952.) *Fall and spring quarters*.
- 335abc. HISTORY OF THE SOUTH (9).
Conference and reports.
Fall, winter, and spring quarters. Mr. Green.
- 337a. RECENT HISTORY OF THE UNITED STATES (3).
Conference and reports.
Fall quarter. Mr. Sitterson.

341. READING COURSE (5).

Any quarter. Members of the graduate faculty.

370a. LATIN AMERICAN HISTORY (3).

Conference and reports.

Winter quarter. Mr. Bierck.

370b. LATIN AMERICAN HISTORY (3).

Conference and reports.

Spring quarter. Mr. Pierson.

375. THESIS COURSE (5 or 10).

Any quarter. Members of the graduate faculty.

SCHOOL OF JOURNALISM

Professors: O. J. COFFIN, C. P. RUSSELL, *J. R. PARKER, WALTER SPEARMAN

Associate Professors: S. W. SECHRIEST, THOMAS J. LASSITER

Assistant Professor: J. L. MORRISON

Instructor: LOLA LEE MUSTARD

Director of Advertising: L. M. POLLANDER

The courses in the School of Journalism are open generally to undergraduates of the University, but registration should be made only after consultation with a member of the Journalism faculty.

Curriculum Leading to the Degree of A.B. in Journalism: The course of study for the first two years is the same as that required of other candidates for the A.B. degree. The following courses are specified in the junior and senior years: one course in economics, two courses in American history or North Carolina history, two courses in political science (American government), six to eight courses in journalism, electives to complete hours and courses for the A.B. degree.

Since all journalism assignments must be typewritten, it is advisable for every student to be able to type with reasonable skill.

Courses for Undergraduates

30. COLLEGE REPORTING.

A course with a maximum credit of five quarter hours for reporting done on the student newspaper under the supervision of the Department of Journalism. Registration with department required.

31. COLLEGE EDITING.

A similar credit course for those who do the desk work of the student newspaper. Registration with department required.

* Professor Emeritus.

53. NEWS WRITING I (5). Prerequisite for Journalism 54.
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Morrison, Sechriest, Lassiter.
54. NEWS WRITING II (5). Prerequisite, Journalism 53 or the equivalent.
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Spearman, Morrison, Sechriest, Lassiter.
55. NEWS WRITING III (5). Prerequisites, Journalism 53 and 54 or the equivalent.
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Coffin, Spearman.
- 56abc. FEATURE WRITING (3 each).
Fall, winter, and spring quarters. Messrs. Coffin and Morrison.
57. NEWS METHODS AND TREATMENTS (5). Prerequisite, Journalism 53 or 54.
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Mr. Sechriest.
58. EDITORIAL WRITING (3).
Fall, winter, and spring quarters. Mr. Coffin.
59. COUNTRY NEWSPAPER PRODUCTION (5).
Fall and spring quarters. Laboratory fee, \$2.00. Mr. Lassiter.
60. BOOK REVIEWING AND DRAMATIC CRITICISM FOR NEWSPAPERS (3).
Winter quarter. Mr. Spearman.
61. HISTORY OF JOURNALISM (3).
Fall and spring quarters. Mr. Russell.
62. NEWSPAPER ADVERTISING I (5).
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Mr. Pollander, Miss Mustard.
63. NEWSPAPER ADVERTISING II (5). Prerequisite, Journalism 62.
Fall and spring quarters. Laboratory fee, \$2.00. Mr. Pollander.
- 64, 65, 66. CREATIVE WRITING (5 each). Instructor's permission necessary.
Continuing courses, one taught each quarter. Mr. Russell.
- NOTE: These courses elective, by arrangement with the instructor, to those with majors in other fields. See English 53.
67. ADVERTISING COPYWRITING (3). Prerequisite, Journalism 62.
Fall, winter, and spring quarters. Laboratory fee, \$2.00. Miss Mustard.
73. RADIO JOURNALISM (5).
Fall and spring quarters. Laboratory fee, \$2.00. Mr. Morrison.
74. BUSINESS JOURNALISM (3).
Fall and winter quarters. Mr. Morrison.
80. NEWS PHOTOGRAPHY (3). Instructor's permission necessary.
Fall, winter, and spring quarters. Laboratory fee, \$5.00. Mr. Sechriest.

LATIN

(See Classics)

DEPARTMENT OF LIBRARY SCIENCE

Professor: SUSAN G. AKERS

Assistant Professors: MARGARET E. KALP, ELAINE VON OESON

Instructor: MRS. JEAN H. PELLEGRIN

The courses listed below 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. They are planned for students who wish to meet the requirements for certification as part- or full-time school librarians in North Carolina. Besides the courses listed below, the student will take the courses in education required for certification and a major or minor program in English, French, Latin, mathematics, natural science, or social science. These programs are outlined under the School of Education (pp. 161-71).

Students who choose a major program in library science will take all of the courses listed below; those who choose a minor program will omit Library Science 96 and take 95 as a three-hour course.

The courses described below also meet the requirements in library science for admission to the program leading to the degree of Master of School Librarianship.

Courses for Undergraduates

*93. SURVEY AND EVALUATION OF BOOKS AND RELATED MATERIALS FOR CHILDREN (3).

Fall and winter quarters. Miss Kalp.

94. PLACE OF THE LIBRARY IN THE SCHOOL (3).

Fall quarter. Miss Kalp.

95. SELECTIONS AND USE OF REFERENCE MATERIALS (3 or 5).

Fall quarter. Miss von Oesen.

96. CATALOGUING AND CLASSIFICATION FOR SCHOOL LIBRARIES (5).

Winter quarter. Mrs. Pellegrin.

122. THE SELECTION OF BOOKS AND RELATED MATERIALS FOR YOUNG PEOPLE (5).

Winter quarter. Miss Kalp.

123. THE SELECTION OF BOOKS AND RELATED MATERIALS FOR CHILDREN (5).

Spring quarter. Miss Kalp.

143. SCHOOL LIBRARY ORGANIZATION AND ADMINISTRATION (5).

Spring quarter. Miss Kalp.

* Not included in the 28 quarter hour program for school librarians; a special course for elementary school teachers.

DEPARTMENT OF MATHEMATICAL STATISTICS

Professors: HAROLD HOTELLING, RAJ CHANDRA BOSE, SAMARENDRA NATH ROY, H. E. ROBBINS

Assistant Professors: G. E. NICHOLSON, JR., WASSILY Hoeffding

This department is devoted chiefly to graduate teaching and to research in the theory of statistics, but qualified undergraduates are admitted, by special permission only, to courses with numbers below 200. The minimum prerequisite for courses with numbers above 130 is advanced calculus or other mathematical analysis higher than elementary integral calculus, for example theory of functions or differential equations.

Undergraduates looking forward to advanced work in statistics are strongly urged to acquire as much advanced mathematics as possible, and also to lay a groundwork of solid knowledge of some field in which statistical methods are applied. Examples of such fields are economics, sociology, psychology, genetics, astronomy, and many others. Applied statistical work of the highest grade requires a combination of knowledge of the nature of the application with the substantial knowledge of mathematical statistics and the supporting mathematics necessary for working out new substitutes for standard techniques when, as often happens, the latter do not fit the need. For this purpose it is not enough merely to know standard methods. Their underlying assumptions and mathematical derivations must also be clearly understood, and the statistician on these high levels must be proficient in the mathematical type of research needed.

The Institute of Statistics is an agency of the consolidated University of North Carolina and includes the Department of Mathematical Statistics at Chapel Hill as one of its parts. It also includes the Department of Experimental Statistics at Raleigh. Graduate students majoring in either of these departments normally take some work in the other and schedules and transportation are arranged to facilitate this. Recently certain Experimental Statistics courses have been offered in Chapel Hill. Further information may be found in the Institute of Statistics section of this catalogue, p. 430, and full details are in the separately issued Graduate School pamphlet on Statistics.

The attention of students of statistics is called to closely related courses in other departments, especially to Mathematics 110 (Finite Differences), Philosophy 134 and 235 (Symbolic Logic), Physics 221 (Statistical Mechanics), Chemistry 284 and 285 (Statistical Problems

in Chemistry), Economics 170 (Economic Statistics) and 172 (Index Numbers and Analysis of Economic Time Series), Psychology 132 (Test Construction), and Sociology 197 (Population Statistics).

Courses for Graduates and Advanced Undergraduates

The courses numbered 100 to 153 inclusive below do not carry any course or hour credit toward bachelors' degrees granted at Chapel Hill, except by special permission of the Dean of the College of Arts and Sciences.

The courses 100, 104, and 105 are intended for students whose major fields will be other than statistics, and not as initial steps to an advanced specialization in statistics. For the latter purpose Statistics 131 and 132 are basic.

100. PRINCIPLES OF STATISTICAL INFERENCE (5). Same as Statistics 512 (Experimental Statistics). Prerequisite, college algebra.

An introduction to fundamental concepts of statistical inference, using as little mathematics as possible. Emphasis on comprehension and interpretation. The probability basis of statistics. The most common statistical techniques, illustrated with data from biological, psychological, economic, and other fields. Designed to supplement courses given in departments of application.

Fall and winter quarters. Mr. Nicholson.

104. INTRODUCTION TO STATISTICS I (5). Prerequisite, integral calculus. Classification of data. Distributions. Probability. Moments. Order statistics. Binomial, Poisson, and normal distributions. Nature of statistical hypotheses. Testing hypotheses. Efficiency of tests and estimates. Large-sample theory. Practical applications.

Winter quarter. Mr. Nicholson.

105. INTRODUCTION TO STATISTICS II (5). Prerequisite, Mathematical Statistics 104.

A continuation of 104. Regression and correlation from the point of view of least squares and the analysis of variance. Bivariate and multivariate distributions. Theory and application of chi tests. Efficient designs of experiments. Illustrations from numerous fields of application.

Spring quarter. Mr. Nicholson.

126. SAMPLE SURVEYS (5). Prerequisite, Statistics 105 or Statistics 132.

Different types of sampling with reference to finite as well as infinite populations. Non-response. Optimum allocation of resources. Practical problems arising in the planning, execution and analysis of a survey. Different types of surveys with illustrations.

Spring quarter. Mr. Bose.

131. ELEMENTARY PROBABILITY (5). Prerequisite, advanced calculus.

Logical foundations. Permutations and combinations. Variates, expectations, moments, and cumulants. Characteristic functions. Limit Theorems. Laws of great numbers.

Fall quarter. Mr. Robbins.

132. STATISTICAL INFERENCE (5). Prerequisite, Statistics 131.

Fundamentals of the use of observations to test hypotheses and estimate unknown quantities. The accuracy of means and variances. Illustrations from physical, biological, and social sciences.

Winter quarter. Mr. Hotelling.

133. LEAST SQUARES AND TIME SERIES (5). Prerequisites, Statistics 132 and Mathematics 147 (Matrices).

The method of least squares, with probability interpretations, and applications to social and natural sciences. Time series problems, including trends, seasonal variations, periodicities, correlations.

Spring quarter. Mr. Hotelling.

143. SEQUENTIAL ANALYSIS (5). Prerequisite, Statistics 132.

Methods in which the number of observations is not predetermined but depends on the observations themselves. Applications to design of experiments and industrial quality control.

Spring quarter. Mr. Hoeffding.

144. CORRELATION, CONTINGENCY, AND CHI TESTS (5). Prerequisite, Statistics 132; corequisite, Mathematics 147 (Matrices).

Elements of the theory of testing composite hypotheses. General multivariate distributions and their characteristic functions. The meaning of population correlations. Multivariate normal populations; total, partial and multiple correlations. The best sample estimate of each of these and the best test of any hypothesis concerning any of them. 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.

Fall quarter. Mr. Roy.

145. MULTIVARIATE ANALYSIS (5). Prerequisites, Statistics 144 and Mathematics 147 (Matrices).

Optimum tests of hypotheses concerning means of multivariate normal populations. Generalization of Student's ratio. Power of this test. Optimum tests, for different classes of alternatives, of the hypothesis of equality of two dispersion matrices for two p-variate normal populations. Tests of independence of sets of variates. Relations between two sets of variates. Canonical correlations.

Winter quarter. Mr. Roy.

147. ANALYSIS OF VARIANCE AND COVARIANCE (5). Prerequisites, Statistics 131 and Mathematics 147 (Matrices); corequisite, Statistics 132.

(Not offered in 1951-1952 or 1952-1953.)

148. LINEAR ESTIMATION AND ANALYSIS OF VARIANCE AND COVARIANCE (5). Prerequisites, Statistics 132 and Mathematics 147 (Matrices).

Theory of linear estimation and tests of linear hypotheses. One- and many-way classifications with equal or unequal numbers in the cells. Interaction. Components of variance. Orthogonal polynomials. Missing variates. Analysis of covariance. Transformations. Applications.

Fall quarter. Mr. Bose.

153. RANK ORDER STATISTICS AND NON-PARAMETRIC INFERENCE (5). Prerequisite, Statistics 132.

Estimation and testing of hypotheses when the functional form of the underlying distribution is unknown. Rank order statistics, rank and sign tests, and tests based on permutations of observations. Theory of runs. Non-parametric tolerance limits.

Winter quarter. Mr. Hoeffding.

182. MATHEMATICAL ECONOMICS (Economics 182) (5). 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 controls of various kinds. Index numbers.

(1952-1953 and alternate years.) *Fall quarter*. Mr. Hotelling.

183. ADVANCED MATHEMATICAL ECONOMICS (Economics 183) (3). Prerequisites, Statistics 182 and Mathematics 141 (Differential Equations).

Dynamic variations in the economy. Development of elements of the calculus of variations and of stochastic difference equation theory, with applications to economic problems. Mathematical treatment of business cycles. Valuation of property taking account of depreciation and depletion. Most profitable rates of exploitation of mineral and biological resources. Relation of private exploitation to the public welfare and effects of various taxes and regulations.

(1952-1953 and alternate years.) *Winter quarter*. Mr. Hotelling.

Courses for Graduates Only

216. ADVANCED MULTIVARIATE ANALYSIS (5). Prerequisite, Statistics 145.

Optimum tests (for different classes of alternatives) of the hypothesis of equality of corresponding means for $k (>2)$ p -variate normal populations. The multivariate analysis of variance. The power functions of such tests. The power functions of the optimum tests for the hypothesis of equality of dispersion matrices. The problem of the rank of a set of observed variates, and some aspects of factor analysis. Some recent work in multivariate analysis.

Spring quarter. Mr. Roy.

225. THEORY OF ESTIMATION AND TESTING HYPOTHESES (5). Prerequisite, Statistics 132.

Consistent, efficient and sufficient statistics. Unbiased estimates of minimum variance. Estimates that minimize the maximum risk. Maximum likelihood estimates. The theory of testing hypotheses. The theory of confidence intervals.

Fall quarter. Mr. Hoeffding.

230. INTERMEDIATE PROBABILITY (5). Prerequisites, Statistics 131 and Mathematics 176 (Complex Variables I).

The general theory of measure and integration, with special reference to random variables. Properties of characteristic functions. Central limit theorems.

Winter quarter. Mr. Robbins.

231. ADVANCED PROBABILITY (5). Prerequisite, Statistics 230.

Continuation of Statistics 230. Probability distributions in spaces of an infinite number of dimensions. Strong convergence and ergodic theory.

(Not offered in 1951-1952.) Mr. Robbins.

232. STATISTICAL DECISION PROBLEMS (5). Prerequisite, Statistics 230.

A survey of the general theory of statistical decision which has been developed during the last few years and which goes beyond the classical theory of estimation and testing hypotheses. Topics covered include the general multi-decision problem, admissibility, Bayes and minimax solutions, and complete classes of decision functions. Wald's book *Statistical Decision Functions* will be used as a text.

Spring quarter. Mr. Robbins.

235. STOCHASTIC PROCESSES AND THEIR APPLICATIONS (5). Prerequisite, Statistics 131; corequisites, Mathematics 147 (Matrices), Mathematics 176 (Complex Variables I).

Cumulated random motions and other examples of stochastic processes from the physical, biological, and social sciences. Elements of the general theory. Discrete and continuous processes; stationary and evolutionary processes. Bearing on the statistical analysis of time series.

Fall quarter. Mr. Hotelling.

237. THEORY OF TIME SERIES (5). Prerequisite, Statistics 132; corequisite, Statistics 133.

Evolutionary and stationary discrete processes. Methods of analysing non-stationary series; trend lines, moving averages, variate differences. Elements of the theory of stationary discrete processes; the decomposition theorem. Special models: the sinusoidal limit theorem. Linear stochastic difference equations. Tests for randomness. Distribution of the serial correlation coefficient. Periodogram. Correlogram.

(Not offered in 1951-1952 or 1952-1953.)

250. MATHEMATICS OF EXPERIMENTAL DESIGN (5). Prerequisites, Statistics 132 and 148.

Unified mathematical theory for the analysis of data from experimental designs. Applications to randomized blocks, Latin squares, lattice designs, balanced and partially balanced incomplete block designs and Youden squares. Modification for missing plots. Intra-block and inter-block analysis. Split plot and factorial designs. Applications of the methods of modern algebra and finite geometry to the combinatorial problems arising in the design of experiments.

Winter quarter. Mr. Bose.

352. SEMINAR ON THEORETICAL AND APPLIED STATISTICS (5). Prerequisite, work more advanced than Statistics 132.

353. SEMINAR IN ADVANCED MATHEMATICAL STATISTICS (5). Prerequisite, a course requiring Statistics 132 as prerequisite; also a knowledge of matrices, finite differences, and complex variables.

Winter quarter. Mr. Hotelling.

361, 362, 363. SPECIAL PROBLEMS (5 each).

371, 372, 373. ADVANCED RESEARCH (5 each).

DEPARTMENT OF MATHEMATICS

Professors: W. M. WHYBURN, T. F. HICKERSON, J. W. LASLEY, JR., A. W. HOBBS, E. T. BROWNE, E. L. MACKIE, J. B. LINKER, M. A. HILL, A. S. WINSOR, R. M. TRIMBLE, V. A. HOYLE, *E. A. CAMERON, A. T. BRAUER, F. B. JONES

Visiting Professor: †A. B. COBLE

Associate Professor: L. L. GARNER

Assistant Professors: *I. R. HERSHNER, JR., W. R. MANN

Part-time Instructors: R. M. ACKERSON, R. R. CROXTON, A. S. DAVIS, JOHN JONES, JR., H. T. LABORDE, L. F. MCAULEY, H. C. MILLER, JR., T. J. PIGNANI, S. J. SCOTT, B. M. SEELBINDER, MARGARET SEELBINDER, P. TERWEY, JR., ELIZABETH SNOW WOLF

Teaching Fellows: E. E. GRACE, E. J. PELLICCIARO

* Absent on leave, 1951-1952.

† Winter and spring quarters, 1952.

For the degree of A.B. with major in mathematics there are required:

I. From six to eight courses beyond Mathematics 31. These courses shall include:

(a) Mathematics 32, 33, 36; or 34-35, 36; or their equivalent.

(b) At least three courses numbered 100 or above, of which two or more shall be in pure mathematics.

II. From five to seven courses from the departments of Botany, Chemistry, Geology, Physics, Psychology, Zoology and Philosophy 21, 134 or 141.

III. From five to seven courses outside the Division of Natural Sciences.

Those students who plan to teach in the public schools should read the statement on pages 161-62.

The following curriculum leading to the Bachelor of Science degree in Mathematics is now available:

FRESHMAN YEAR

Mathematics 7, 8, 31

Social Science 1, 2

English 1, 2

French or German—Two courses
of one language

Hygiene 11 and freshman physical
education

SOPHOMORE YEAR

Mathematics 34-35, 36; or 32, 33, 36

English 3, and 4 or 5 or 6 or elective
in the fine arts; or two courses in
classical language or literature

French or German—Two courses,
continuing the language begun in
the first year

Physics 24, 25; or 34, 35; or Chemistry
1, 2, 3 (or 1, 2, 31), if the two

physics courses are elected in the
junior or senior years

Sophomore physical education

JUNIOR AND SENIOR YEARS

Six courses in mathematics, including
141, and 131 or 136

Six divisional courses of which one
must be Botany 41 or Zoology 41,
and among which no mathematics

courses except Mathematics 41
and/or 51 may be included

Four non-divisional courses

Two free electives

The department has a committee to advise students interested in preparation for actuarial work.

Before registering for Mathematics R or Mathematics 7, each student is required to take a mathematics placement test.

Courses for Undergraduates

R. INTERMEDIATE ALGEBRA (0).

Five hours a week, each quarter during 1951-1952. Staff.

7X. COLLEGE ALGEBRA (5).

This course is for students who have taken and passed Mathematics R.
Each quarter. Staff.

7. COLLEGE ALGEBRA (5).

Each quarter. Staff.

8. PLANE TRIGONOMETRY (5).

Each quarter. Staff.

9. TRIGONOMETRY AND MATHEMATICS OF FINANCE (5).

Each quarter. Staff.

10. MATHEMATICS OF FINANCE (5).

Each quarter. Staff.

31. PLANE ANALYTIC GEOMETRY (5). Prerequisites, Mathematics 7 and 8.

Each quarter. Staff.

32. DIFFERENTIAL CALCULUS (5). Prerequisite, Mathematics 31.

Each quarter. Staff.

33. INTEGRAL CALCULUS (5). Prerequisite, Mathematics 32.

Winter and spring quarters. Staff.

34-35. INTENSIVE COURSE IN THE DIFFERENTIAL AND INTEGRAL CALCULUS (10). Prerequisite, Mathematics 31.

A two-quarter course in which calculus principles and operations share emphasis. Designed especially for majors in mathematics and closely related fields.

Five hours a week, fall and winter quarters. Messrs. Mackie and Winsor.

36. TOPICS IN CALCULUS (5). Prerequisite, Mathematics 33 or 35.

Partial differentiation, limits and continuity, multiple integrals, series.

Five hours a week, spring quarter. Messrs. Mackie and Winsor.

41. MECHANICAL DRAWING (5).

Six hours a week, winter quarter. Laboratory fee, \$1.00. Mr. Trimble.

51. PLANE SURVEYING (5). Prerequisites, Mathematics 7 and 8.

Four lecture and two field hours a week, fall and spring quarters. Laboratory fee, \$4.00. Mr. Trimble.

62. INTRODUCTORY STATISTICS (5). Prerequisites, Mathematics 7 and 8

or 10.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Hill.

Courses for Graduates and Advanced Undergraduates

102. ELEMENTARY ALGEBRA FROM AN ADVANCED VIEWPOINT (5).

Prerequisite, Mathematics 33.

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. Among the topics included are: rational, real, and complex numbers; systems of equations; determinants; probability.

Fall quarter. Mr. Hoyle.

103. COLLEGE GEOMETRY (5). Prerequisite, Mathematics 33.

A triangle and its associated circles. Orthogonal circles and inverse points. Poles and polars. Coaxial circles. Isogonal lines. Similitude. Inversion. Brocard's figures. Lemoine circles.

Spring quarter. Mr. Winsor.

110. CALCULUS OF FINITE DIFFERENCES (5). 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 quarter. Mr. Garner.

111. ELEMENTARY MATHEMATICAL STATISTICS (5). 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.

Winter quarter. Mr. Hill.

121. THEORETICAL AND APPLIED MECHANICS: STATICS (5). Prerequisite, Mathematics 32.

Force systems; friction; centroids; moment of inertia.

Fall quarter. Mr. Hickerson.

122. THEORETICAL AND APPLIED MECHANICS: KINEMATICS AND KINETICS (5). Prerequisite, Mathematics 33.

Motion of particles and rigid bodies; force, mass, and acceleration; work and energy; impulse and momentum; vibrations.

Winter quarter. Mr. Hickerson.

123. STRENGTH OF MATERIALS (5).

Stresses and strains in structural materials; riveted and welded joints; torsion and bending; stresses in beams and columns; deflection of beams; special topics.

Spring quarter. Mr. Hickerson.

124. HYDRAULICS (5). Prerequisites, Mathematics 121, 123.

(1952-1953 and alternate years.) *Winter quarter.* Mr. Trimble.

131. THEORY OF EQUATIONS (5). 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.

Winter quarter. Mr. Brauer.

136. INTRODUCTION TO MODERN ALGEBRA (5). Prerequisite, Mathematics 33 or equivalent.

Introduction to integral domains, fields, groups, vector spaces, theory of linear dependence, systems of linear equations, linear transformations, and matrices.

Spring quarter. Mr. Browne.

141. DIFFERENTIAL EQUATIONS (5). 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 quarters. Messrs. Linker, Hoyle.

143. PARTIAL DIFFERENTIAL EQUATIONS (5). Prerequisite, Mathematics 141.

A study of some of the partial differential equations of physics and boundary problems.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Hobbs.

147. INTRODUCTION TO THE THEORY OF DETERMINANTS AND MATRICES (5). Prerequisite, Mathematics 33 or equivalent.

A study of the basic concepts and theorems concerning determinants and matrices; designed principally for students of statistics but open also to other students of mathematics.

Fall quarter. Mr. Browne.

150. SYNTHETIC PROJECTIVE GEOMETRY (3). Prerequisite, Mathematics 33 or equivalent.

A study of forms of the first and second orders by synthetic methods. Projective correspondences, poles and polars, metric specializations.

Summer session. Mr. Lasley.

151. ANALYTIC PROJECTIVE GEOMETRY I (5). Prerequisite, Mathematics 33 or equivalent.

Projective geometry of one-dimensional forms, treated analytically, with special emphasis on applications to theory of equations.

Winter quarter. Mr. Lasley.

152. ANALYTIC PROJECTIVE GEOMETRY II (5). Prerequisite, Mathematics 151.

Projective geometry of two-dimensional forms, treated analytically, with special emphasis on the theory of conics.

Spring quarter. Mr. Lasley.

161. ANALYTIC GEOMETRY OF SPACE (5). Prerequisite, Mathematics 33.

A study from the analytic point of view of loci in three dimensions, with special emphasis on systems of planes and on quadric surfaces.

Winter quarter. Mr. Browne.

163. ELEMENTARY POINT-SET THEORY (5). Prerequisites, Mathematics 31, 32, 33, or Mathematics 34, 35, 36.

Introduction to the study of point sets on the line and in the plane with applications to the foundations of calculus and analysis.

(1952-1953.) *Winter quarter*. Mr. Jones.

166. THEORY OF FUNCTIONS OF REAL VARIABLES I (5). Prerequisite, Mathematics 171.

The real number system; point sets, theory of measure; correspondences and transformations.

Spring quarter. Mr. Whyburn.

171. ADVANCED CALCULUS I (5). Prerequisite, Mathematics 33 or equivalent. Mathematics 36 and 141 are recommended.

Limits, continuity, infinitesimals, differentials, power series, partial and implicit differentiation, definite and line integrals.

Fall quarter. Mr. Hobbs.

172. ADVANCED CALCULUS II (5). Prerequisite, Mathematics 171.

Gamma and beta functions; Legendre polynomials; Bessel functions; Fourier series; Laplace's equation; Harmonic functions; Potential.

Winter quarter. Mr. Hobbs.

173. TOPICS IN APPLIED MATHEMATICS (5).

A study of special methods useful in the solution of boundary value problems associated with second order partial differential equations—Orthonormal expansions, Laplace transform, conformal mapping, perturbation methods, methods of characteristics, etc.

Spring quarter. Mr. Mann.

176. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE I (5). Prerequisite, Mathematics 36 or equivalent. Mathematics 171 is recommended.

Differentiation and integration of a function of a complex variable, mapping of elementary functions, infinite series, analytical continuation and properties of analytic functions.

Fall quarter. Mr. Mackie.

177. SERIES EXPANSIONS (5). Prerequisites, Mathematics 171, 172.

Power series; uniform convergence of series and infinite integrals; change of order in multiple limit processes; Dirichlet's conditions for the convergence of Fourier series; properties of the Fourier constants; proof of the closure and completeness of the eigen functions associated with the Sturm-Liouville boundary value problem; expansion theorems for Bessel functions, Legendre polynomials and Hermite polynomials.

Fall quarter. Mr. Mann.

178. SPECIAL FUNCTIONS (5). 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.

Winter quarter. Mr. Mann.

181. ELEMENTARY THEORY OF NUMBERS (5).

An elementary course in theory of rational integers, divisibility, scales, simplest properties of prime numbers, Diophantine equations, congruences, quadratic residues. Applications in elementary mathematics and mathematical games.

Fall quarter. Mr. Brauer.

191. VECTOR AND TENSOR ANALYSIS (5). 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.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Hoyle.

Courses for Graduates

207. ADVANCED THEORY OF FUNCTIONS OF A COMPLEX VARIABLE (5). Prerequisite, Mathematics 176.

Topics cover properties of analytic functions, calculus of residues, contour integration, integral functions, meromorphic functions, periodic functions, Riemann Surfaces, and conformal representation.

Winter quarter. Mr. Coble.

208. CONFORMAL MAPPING (5). Prerequisite, Mathematics 207.

This course treats the modern aspects of the theory of conformal mapping. (1951-1952 and alternate years.) *Spring quarter.* Mr. Coble.

209. NORMAL FAMILIES (5). Prerequisite, Mathematics 207.

This course will treat Normal Families of analytic functions and their applications.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Hershner.

226. FOUNDATIONS OF GEOMETRY (5).

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. Whyburn.

230. ADVANCED NUMBER THEORY OF RATIONAL INTEGERS I (5).

Prerequisite, Mathematics 181.

Recent results in elementary number theory. Arithmetic theory of binary quadratic forms.

(1951-1952 and alternate years.) *Winter quarter*. Mr. Brauer.

231. ADVANCED NUMBER THEORY OF RATIONAL INTEGERS II (5).

Prerequisite, Mathematics 181.

Selected problems of additive number theory and the geometry of numbers. Introduction to the analytic theory of numbers.

(1951-1952 and alternate years.) *Spring quarter*. Mr. Brauer.

232. ALGEBRAIC THEORY OF NUMBERS I (5). Prerequisites, Mathematics

131 and 181.

Existence of transcendental numbers, transcendence of e and π ; number theory in Euclidean fields, biquadratic and cubic residues; general algebraic fields; theory of ideals.

(1952-1953 and alternate years.) *Winter quarter*. Mr. Brauer.

233. ALGEBRAIC THEORY OF NUMBERS II (5). Prerequisite, Mathematics 232.

Continuation of 232. Discriminants of algebraic fields, unities, quadratic, cubic, and cyclotomic fields; Diophantine equations of higher degree, Fermat's Last Theorem.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Brauer.

235. SOME RECENT RESULTS IN ALGEBRA (5).

Five hours a week, summer session. Mr. Brauer.

236. HIGHER PLANE CURVES (5). Prerequisite, Mathematics 151.

Applications of projective geometry to curves of degree higher than two; special types of curves; relationships; properties.

(1951-1952 and alternate years.) *Spring quarter*. Mr. Lasley.

241. LIE'S THEORY OF DIFFERENTIAL EQUATIONS (5). Prerequisite, Mathematics 141.

An introduction to continuous groups and to the theory of differential equations.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Hobbs.

246. MODERN HIGHER ALGEBRA (5). Prerequisite, Mathematics 131.

A course dealing with certain fundamental aspects of modern algebra, including the topics of groups, rings, and fields.

Spring quarter. Mr. Browne.

247. THE THEORY OF MATRICES (5). 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.

Winter quarter. Mr. Browne.

256. ALGEBRAIC INVARIANTS (5). Prerequisites, Mathematics 131 and 152. An introduction to the non-symbolic theory of invariants of binary forms with applications to geometry, followed by an explanation of the symbolic notation of Clebsch with practice in its use. Based on Dickson's Algebraic Invariants.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Browne.

261. DIFFERENTIAL GEOMETRY (5). Prerequisites, Mathematics 141 and 161.

A study of the metric differential properties of curves, surfaces, and curves on surfaces by means of differential equations.

(1951-1952 and alternate years.) *Fall quarter*. Mr. Lasley.

267. THEORY OF FUNCTIONS OF REAL VARIABLES II (5). Prerequisite, Mathematics 166.

Functions, continuity, measurability, Riemann and Lebesgue integration, Baire classes.

Fall quarter. Mr. Whyburn.

268. ADVANCED DIFFERENTIAL EQUATIONS (5). Prerequisite, Mathematics 267 or equivalent.

Fundamental existence theorems for ordinary equations, boundary value problems, applications to classical problems of mathematical physics.

Winter quarter. Mr. Whyburn.

280. CALCULUS OF VARIATIONS (5). Prerequisites, Mathematics 141 and 171.

The determination of necessary and sufficient conditions for functions which minimize certain definite integrals.

(1952-1953 and alternate years.) *Fall quarter*. Mr. Mackie.

281. GENERAL TOPOLOGY I (5).

A general introduction to point-set theoretic methods and axiomatic foundations.

Fall quarter. Mr. Jones.

282. GENERAL TOPOLOGY II (5). Prerequisite, Mathematics 281.

A continuation of Mathematics 281.

Winter quarter. Mr. Jones.

283. GENERAL TOPOLOGY III (5). Prerequisite, Mathematics 282.

A continuation of Mathematics 282.

Spring quarter. Mr. Jones.

284. GENERAL TOPOLOGY IV (5). Prerequisite, Mathematics 283.

A continuation of Mathematics 283.

Fall quarter. Mr. Jones.

285. GENERAL TOPOLOGY V (5). Prerequisite, Mathematics 284.

A continuation of Mathematics 284.

Winter quarter. Mr. Jones.

291. THEORY OF GROUPS (5). Prerequisite, Mathematics 136 or equivalent. A study of properties of abstract groups, including subgroups, factor groups, homomorphisms and automorphisms, composition series, direct products, groups with operators, and special properties of abelian groups.

(1952-1953 and alternate years.) *Fall quarter*. Mr. Cameron.

297. GALOIS THEORY (5). Prerequisite, Mathematics 246.

A development of Galois theory by the methods of Artin, applications to solvability of equations and other problems.

(1952-1953 and alternate years.) *Winter quarter.* Mr. Cameron.

SEMINARS AND THESES (5).

351, Mr. Whyburn; 352, Mr. Hickerson; 356, Mr. Lasley; 357, Mr. Jones; 361, Mr. Hobbs; 366, Mr. Browne; 367, Mr. Garner; 371, Mr. Winsor; 372, Mr. Hoyle; 376, Mr. Mackie; 377, Mr. Hill; 381, Mr. Brauer; 382, Mr. Cameron; 386, Mr. Hershner; 387, Mr. Mann.

DEPARTMENT OF MUSIC

Professors: GLEN HAYDON, EARL SLOCUM, J. P. SCHINHAN

Associate Professor: W. S. NEWMAN

Assistant Professors: JOEL CARTER, WILTON MASON

Instructor: EDGAR ALDEN

Part-time Instructors: ALLEN GARRETT, ROBERT WEAVER

Assistants: MELVIN BERNSTEIN, MARY GRAY CLARKE, JOHN FESPERMAN, JR., WILLIAM HEADLEE, ANNE LYNCH, THOMAS NICHOLS, WILLIS QUANT, WILLIAM WHITESIDES, JOSEPH WOOD

The courses in music are designed to perform a threefold function in the University: (a) to give the student electing music as his chief interest a thorough training in the practical, theoretical, and historical aspects of the subject as a part of the general liberal arts curriculum for the A.B. degree; (b) to give the student interested in the scholarly aspects of the subject the basic training necessary for successful graduate work; (c) to afford students in other departments the opportunity to take music as an elective for its cultural value in the liberal arts program.

Course leading to the A.B. degree with music as the major: Students who take music as the major must 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 1 and 14-15, and mathematics or Latin or Greek. Courses in the regular freshman program postponed to make way for the music must be taken at some later time. Similar arrangements must be made in the sophomore year to provide for Music 21, 44-45, and 47.

The undergraduate major in music consists of from thirty to forty quarter hours beyond the freshman-sophomore requirements and must include Music 48, 61, 64, 71, 74, and 101. Attention is called to the special requirements in applied music. See pages 324-26.

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 the 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 conjunction 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

1. NOTATION, SIGHT-SINGING, AND DICTATION (5).

Ten laboratory hours a week, fall quarter. Messrs. Carter, Alden, Weaver, Miss Clarke.

1-x. SIGHT-SINGING (2½).

Five laboratory hours a week, any quarter. Messrs. Carter, Weaver.

1-y. DICTATION (2½).

Five laboratory hours a week, any quarter. Mr. Carter.

14-15. HARMONY (10). Prerequisite or corequisite, Music 1.

Five hours a week, winter and spring quarters. Mr. Alden, Miss Clarke.

21. NOTATION, SIGHT-SINGING, AND DICTATION (2½). Prerequisite, Music 1. Sophomore requirement for those who will have music as a major.

Five laboratory hours a week, spring quarter. Mr. Carter.

*41. MUSIC APPRECIATION (5).

A general introduction, through readings, demonstrations, lectures, and listening, of the principal elements, forms, characteristics, and names in music. No prerequisite. May be substituted for the fourth quarter of English in the General College.

Any quarter. Fee, \$1.00. Mr. Newman.

44-45. ADVANCED HARMONY (10). Prerequisites, Music 1, Music 14-15. Sophomore requirement for those who will have music as a major.

Five hours a week, fall and winter quarters. Messrs. Schinhan, Mason.

47, 48. THE HISTORY OF MUSIC (5 each). Requirement for those who will have music as a major.

Five hours a week, winter and spring quarters. Mr. Mason.

* Will not be accepted as part of a major.

*54. MUSIC APPRECIATION: INSTRUMENTAL MUSIC OF THE CLASSICAL PERIOD (5).

A survey through lectures, readings, and listening, of important solo and ensemble instrumental music, musical forms, and composers of the seventeenth and eighteenth centuries. No prerequisite.

Fall quarter. Fee, \$1.00. Mr. Alden.

*55. MUSIC APPRECIATION: INSTRUMENTAL MUSIC OF THE ROMANTIC AND MODERN PERIODS (5).

A survey through lectures, readings, and listening, of important solo and ensemble instrumental music, musical forms, and composers of the nineteenth and twentieth centuries. No prerequisite.

Winter quarter. Fee, \$1.00. Mr. Alden.

*56. MUSIC APPRECIATION: A SURVEY OF VOCAL MUSIC (5).

A survey through lectures, readings, and listening, of important solo and ensemble vocal music (including opera), musical forms, and composers. No prerequisite.

Spring quarter. Fee, \$1.00. Mr. Alden.

61. MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE (5). Prerequisite, Music 14-15.

Study and practice of the contrapuntal technique of the sixteenth century; the writing of simple motets.

Spring quarter. Messrs. Schinhan and Mason.

64. TONAL COUNTERPOINT (5). Prerequisite, Music 14-15.

Study and practice of the contrapuntal technique with particular reference to the style of Bach; writing of two- and three-part inventions.

Fall quarter. Mr. Slocum.

71. INSTRUMENTATION, ORCHESTRATION, AND ELEMENTARY CONDUCTING (5). Prerequisite, Music 44-45.

Spring quarter. Mr. Slocum.

74. ANALYSIS AND COMPOSITION IN THE SMALLER FORMS (5). Prerequisite, Music 44-45.

Winter quarter. Mr. Slocum.

Courses for Graduates and Advanced Undergraduates

101. INTRODUCTION TO MUSICOLOGY (5).

A study of the problems and methods in the various fields, historical and systematic, of musical research. Prerequisite, a reading knowledge of one or more of the important foreign languages, a fair knowledge of musical theory, and some skill in practical applied music.

Fall quarter. Mr. Haydon.

102. INTRODUCTION TO MUSICOLOGY (3). Continuation of 101.

To be arranged. Mr. Haydon.

104. FOLK MUSIC (3 or 5).

A comparative study of the folk songs of various nations, with special emphasis on the American folk music of the South. Lectures, readings, and the study of music available in print or on phonograph records.

To be arranged. Mr. Schinhan.

* Will not be accepted as part of a major.

121, 122, 123. STUDIES IN THE HISTORY OF MUSIC (3 or 5). Prerequisites, Music 44-45 and 47, 48.

A critical study of certain composers, style species or style periods, such as Bach, the sonata, or the music of the sixteenth century.

Three or five hours a week, fall, winter, and spring quarters. Mr. Newman.

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.

*204-205. INTRODUCTION TO COMPARATIVE MUSICOLOGY (6).

Three hours a week, fall and winter quarters. Mr. Schinhan.

214. APPLIED HARMONY (5). Prerequisites, Music 44, 45, 61, 64, 71, 74.

Fall quarter. Mr. Schinhan.

261. ADVANCED MODAL COUNTERPOINT IN THE SIXTEENTH-CENTURY STYLE (5). Prerequisite, Music 44, 45, 61, 64, 71, 74.

Fall quarter. Mr. Mason.

264. ADVANCED TONAL COUNTERPOINT (5). Prerequisites, Music 44, 45, 61, 64, 71, 74.

Winter quarter. Mr. Slocum.

274. ADVANCED COMPOSITION (5). Prerequisites, Music 214, 261.

Winter quarter. Mr. Schinhan.

271. ADVANCED ORCHESTRATION (5). Prerequisites, Music 214, 261, 264.

Spring quarter. Mr. Slocum.

299. THESIS (5).

Spring quarter. Staff.

301, 302, 303. SEMINAR: MUSICOLOGY (9-15).

Three or five hours a week (to be arranged), fall, winter, and spring quarters. Mr. Haydon.

Applied Music

The following courses in applied music are open to students in any department of the University having the necessary technical equipment. The work in applied music is regarded not merely as technical training in performance, but also as a study of the standard literature for the particular instrument or ensemble group. Credit in general will be given on the basis of one quarter hour credit a year in the first and second years; two quarter hours credit a year in the third and fourth years. Credits in applied music will be reported to the Registrar, normally at the end of each academic year. Credit in the School of Education will be given on the basis of one and one-half quarter hours per quarter. For those whose major is not music a total credit

* Will be given as the demand warrants.

not to exceed ten quarter hours may be counted as electives in the A.B. curriculum. Those whose major is music must offer at least ten quarter hours in applied music and may offer a total not to exceed twenty-five quarter hours in this field, of which not more than ten may be ensemble courses. All students with majors in music, unless given special permission by the chairman of the department, must continue individual instruction in applied music throughout the four years. Students planning to teach instrumental music in the public schools will arrange their schedule for the study of the wind and stringed instruments in consultation with the department.

The general prerequisite work for entrance into the first-year courses is ability to perform music of difficulty rated as grade three for the particular instrument. Copies of the course of study for each instrument will be sent upon request. Students who do not have this prerequisite will repeat the preparation 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 other instrument 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.

Students seeking the A.B. degree with a major in music will be required to participate in the musical organizations of the department and students in advanced applied music courses must take part in recitals as prescribed by the department.

Fees

Fees for individual instruction are: \$22.50 per quarter for one lesson a week; \$45.00 per quarter for two lessons a week. Fee for one daily practice period (room with piano), \$3.75 per quarter; fee for two hours daily practice, \$6.25 per quarter. Other fees in proportion. Fee for six hours practice a week on Reuter four-manual organ, \$18.75 per quarter; on Allen or Reuter practice organ, \$15.00 per quarter; on Estey practice organ, \$7.50 per quarter. Arrangements for applied music are made in the office of the Department of Music.

Individual Instruction

A. PREPARATORY ORGAN (no credit).

One or two half-hour lessons and six or twelve hours of practice a week, every quarter. Messrs. Schinhan, Headlee.

1A. FIRST-YEAR ORGAN (1 or 2). 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 or two quarter hours, respectively, for one or two lessons and six or twelve hours of practice a week through three quarters. Messrs. Schinhan, Headlee.

21A. SECOND-YEAR ORGAN (1 or 2). Prerequisite, Music 1A.

Value and hours as in 1A. Messrs. Schinhan, Headlee.

51A. THIRD-YEAR ORGAN (2 or 4). Prerequisite, Music 21A.

Value, two or four quarter hours, respectively, for one or two lessons and six or twelve hours of practice a week through three quarters. Messrs. Schinhan, Headlee.

81A. FOURTH-YEAR ORGAN (2 or 4). Prerequisite, Music 51A.

Value and hours as in 51A. Messrs. Schinhan, Headlee.

91A. FIFTH-YEAR ORGAN (9). Prerequisite, Music 81A. 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. Schinhan, Newman, Mason, Nichols, Bernstein, Weaver.

C. VOICE. Messrs. Carter, Whitesides, Miss Lynch.

D. VIOLIN OR OTHER STRINGED INSTRUMENT. Mr. Alden, Miss Clarke.

E. FLUTE OR OTHER BAND OR ORCHESTRAL INSTRUMENT. Messrs. Haydon, Slocum, Garrett, Wood.

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. FIRST-YEAR BAND (1 for year). Prerequisite, approval of instructor based upon a "try-out" given at the beginning of each quarter.

A minimum of two hours a week through three quarters. Mr. Slocum.

21F. SECOND-YEAR BAND (1 for year).

Hours and value as in preceding course. Messrs. Slocum, Wood.

51F. THIRD-YEAR BAND (2 for year).

A minimum of two hours a week through three quarters. Messrs. Slocum, Wood.

81F. FOURTH-YEAR BAND (2 for year).

Hours and value as in preceding course. Messrs. Slocum, Wood.

Similar numbering, prerequisite work, value, and hours apply to each of the following courses in applied music:

G. ORCHESTRA. Messrs. Slocum, Alden.

H. GLEE CLUB. Mr. Carter.

I. PIANO ENSEMBLE OR OTHER INSTRUMENTAL ENSEMBLE. Staff.

DEPARTMENT OF NAVAL SCIENCE

Professor: J. S. KEATING, *Captain, USN*

Associate Professor: F. L. EDWARDS, *Commander, USN*

Assistant Professors: J. A. MATTHEWS, *Lieutenant Commander, USN*;
F. C. CALDWELL, *Major, USMC*; T. E. BASS, III, *Lieutenant Commander, USN*; G. E. FRENCH, *Lieutenant Commander, USNR*; L. F. COONEY, JR., *Lieutenant, USN*; L. E. WOODALL, *Lieutenant, Supply Corps, USNR*

General Statement

The purpose of the Naval Reserve Officers Training Corps is to provide a steady supply of well-educated junior officers for the Line and Staff Corps of the Navy and Marine Corps, and to build up a reserve of trained officers who will be ready to serve the country at a moment's notice in a national emergency. Students enrolled in the NROTC are of two categories—*regular* and *contract*. All procedures, benefits and requirements described hereinafter apply to both categories of NROTC students unless specifically indicated as pertaining to only one of the two types.

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.

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.

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 Pensacola, Florida, and the amphibious indoctrination is usually conducted at Little Creek, Virginia.

Contract students: Contract students are required to take only one summer cruise during the summer between their junior and senior years, the cruise being of approximately three 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.

University Status

The Naval ROTC Unit is a recognized department of instruction within the University (Department of Naval Science). Full credit toward degrees is granted Naval Science courses as in other departments.

Military Status

NROTC students wear the uniform only on such occasions as prescribed by the Professor of Naval Science. Normally, this will be at drills, ceremonies, and on cruises. In addition to the ordinary requirements of gentlemanly conduct, they are subject to naval discipline and must conduct themselves at all times in a military manner when under naval jurisdiction, that is, when attending naval science classes, drills and exercises, and during summer training periods.

With the exception of the above described instances, NROTC students are in the same category as other students of the University.

Draft Deferment

Students enrolled in the Naval ROTC will be deferred from the draft (Selective Service Act of 1948 and Universal Military Training Act of 1951) under the following conditions:

1. He pursues the Navy ROTC course for four full years, including the summer training period applicable to his status as a 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 eight 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 eight years and to serve not less than three years on active duty as an officer, if called by the Secretary of the Navy.

Status on Graduation

Contract students: After completion of their academic requirements for a baccalaureate degree and the four years of Naval require-

ments, 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 Reserve, inactive. They are eligible for call to active duty as indicated above under "Draft Deferment."

Regular students: Upon graduation, regular students are commissioned as ensigns in the U. S. Navy or second lieutenants in the U. S. Marine Corps. They are normally required to serve on active duty for a maximum period of three years. At the end of this period they may request to remain on active duty as career officers. If they do not so request, or if not selected, they are released to an inactive status in the Reserve.

Eligibility Requirements

A candidate 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.
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 of the U. S. Naval Academy.
8. If a contract student, agree to 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 for three years as an ensign, U. S. Navy, or second lieutenant, U. S. Marine Corps.

Selection Procedures

Contract students are enrolled by the Professor of Naval Science upon their own application and are subject to selection and physical examination at the University within a limited quota as assigned by the Navy Department to each University. These students are taken primarily from the entering freshman class at the beginning of the fall quarter.

Inasmuch as the selection of contract students is completed during the first week of the fall quarter and in view of the fact that the con-

tract quota is limited, all students who desire to be considered for the NROTC program should apply previous to the first day of classes in the fall. An application is not binding, and, even after enrollment in the program, a contract student may withdraw from the program, without prejudice, upon his own request at any time within the first two years.

Regular students enter the NROTC through a nation-wide Aptitude-for-Learning test and selection system conducted by the College Entrance Examining Board, Princeton, New Jersey, and the Navy Department, respectively. The competitive examination is conducted in the late fall of the year, approximately nine months before enrollment of the applicant.

Transfer from contract to regular status: Contract NROTC students may compete for regular status and if selected will be enrolled as regular students without loss of standing.

Curricula

General: In order to obtain a commission either in the U. S. Navy, U. S. Naval Reserve, U. S. Marine Corps, or U. S. Marine Corps Reserve, students are required to obtain a baccalaureate degree and complete forty-eight quarter hours in the Department of Naval Science. During each quarter every student is required to attend one laboratory period of two hours' duration each week. By the end of the sophomore year every student must have satisfactorily completed one year of mathematics through trigonometry. In addition, each regular student must complete one year of college physics. Every student must achieve proficiency in written and oral expression in accordance with the standards of proficiency set by the University. Three separate curricula in naval science subjects are offered, leading to commissions in the Line of the Navy, the Supply Corps of the Navy, and the Marine Corps.

N. S. 111 NAVAL ORIENTATION (4).

Three lecture and two laboratory hours a week, fall quarter.

N. S. 112 NAVAL ORIENTATION (4).

Three lecture and two laboratory hours a week, winter quarter.

N. S. 113 NAVAL ORIENTATION (4).

Three lecture and two laboratory hours a week, spring quarter.

N. S. 211 NAVAL WEAPONS (4).

Three lecture and two laboratory hours a week, fall quarter.

N. S. 212 NAVAL WEAPONS (4).

Three lecture and two laboratory hours a week, winter quarter.

N. S. 213 NAVAL WEAPONS (4).

Three lecture and two laboratory hours a week, spring quarter.

N. S. 311 NAVIGATION (4).

Three lecture and two laboratory hours a week, fall quarter.

N. S. 312 NAVIGATION (4).

Three lecture and two laboratory hours a week, winter quarter.

N. S. 313 NAVIGATION (4).

Three lecture and two laboratory hours a week, spring quarter.

N. S. 311M EVOLUTION OF THE ART OF WAR (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, fall quarter.

N. S. 312M EVOLUTION OF THE ART OF WAR AND BASIC STRATEGY AND TACTICS (Part I) (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, winter quarter.

N. S. 313M BASIC STRATEGY AND TACTICS (Part II) (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, spring quarter.

N. S. 311S NAVAL SUPPLY (4). (For Navy Supply officer candidates.)

Three lecture and two laboratory hours a week, fall quarter.

N. S. 312S NAVAL SUPPLY (4). (For Navy Supply officer candidates.)

Three lecture and two laboratory hours a week, winter quarter.

N. S. 313S NAVAL SUPPLY (4). (For Navy Supply officer candidates.)

Three lecture and two laboratory hours a week, spring quarter.

N. S. 411 NAVAL MACHINERY (4).

Three lecture and two laboratory hours a week, fall quarter.

N. S. 412 DIESEL ENGINES AND SHIP STABILITY (4).

Three lecture and two laboratory hours a week, winter quarter.

N. S. 413 NAVAL JUSTICE AND LEADERSHIP (4). (For all seniors except Marine officer candidates.)

Three lecture and two laboratory hours a week, spring quarter.

N. S. 411M AMPHIBIOUS WARFARE (Part I) (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, fall quarter.

N. S. 412M AMPHIBIOUS WARFARE (Part II) (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, winter quarter.

N. S. 413M LEADERSHIP, UNIFORM CODE OF MILITARY JUSTICE (4). (For Marine officer candidates.)

Three lecture and two laboratory hours a week, spring quarter.

N. S. 411S NAVAL SUPPLY (4). (For Supply officer candidates.)

Three lecture and two laboratory hours a week, fall quarter.

N. S. 412S NAVAL SUPPLY (4). (For Supply officer candidates.)

Three lecture and two laboratory hours a week, winter quarter.

DEPARTMENT OF PATHOLOGY

Professors: K. M. BRINKHOUS, *J. B. BULLITT

Associate Professor: C. B. TAYLOR

Assistant Professor: J. B. GRAHAM

Instructors: JUNE U. GUNTER, *Director of Watts Hospital Laboratories,*

R. D. LANGDELL, G. D. PENICK, MARGARET SWANTON

Fellows: J. B. CAULFIELD, C. M. MILLER

Courses for Undergraduates

51. CLINICAL PATHOLOGY (6). Prerequisite, Pathology 161a.

The object of this course is to familiarize the student with routine examinations of the blood, urine, feces, gastro-intestinal contents, sputum, transudates, and exudates; to acquire accuracy in such procedures; and to secure a general understanding of their relation to the diagnosis of disease.

One lecture and two laboratory hours, last five weeks, winter quarter; three lecture and four laboratory hours, spring quarter. Dr. Gunter and staff.

52. CLINICAL PATHOLOGY (4). Prerequisites, general chemistry and one course in zoology.

A course designed to give undergraduate students an introduction to hematology, urinalysis, and some of the other technical procedures commonly employed in hospital and biological research laboratories.

Two lecture and four laboratory hours a week, spring quarter. Dr. Langdell.

Courses for Graduates and Advanced Undergraduates

161ab. PATHOLOGY (18). Prerequisites, anatomy, histology, physiology, biochemistry.

Four lecture and eight and a half laboratory hours a week, fall quarter; four lecture and eight and a half laboratory hours a week, winter quarter. Dr. Brinkhous and staff.

NOTE: Hours, credits, and instructor for courses 162 (I, II, III) to be arranged.

162 (I). SURGICAL PATHOLOGY. Prerequisite, Pathology 161.

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.

170. SYSTEMIC PATHOLOGY (2). Designed for dental students.

The major disease processes of the body are studied. Gross and microscopic pathologic preparations are used for illustrative purposes.

One lecture and three laboratory hours a week, winter quarter. Dr. Taylor and staff.

* Professor Emeritus.

171. CLINICAL PATHOLOGY (3). Designed primarily for dental students. Major emphasis is on hematology. The student becomes familiar with the technique and interpretation of various common examinations of blood, sputum, and exudates, including exfoliative cytology.

Two lecture and two laboratory hours a week, spring quarter. Drs. Langdell, Miller, and Caulfield.

DEPARTMENT OF PHARMACOLOGY

Kenan Research Professor Emeritus: *W. DEB. MACNIDER

Professor: T. C. BUTLER

Associate Professor: F. W. ELLIS

Assistant Professor: T. Z. CSAKY

Technical Assistant: L. T. COLIE

Course for Undergraduates

55. PHARMACOLOGY (5). Prerequisites, Physiology 51, Materia Medica 68-69. A course for pharmacy students.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Staff.

Courses for Graduates

134. PHARMACOLOGY (5). A course for second-year students of dentistry.

The course will be devoted not only to those drugs of greatest interest in dental practice but will emphasize general principles of pharmacology and will give the student an acquaintance with all of the more important modern therapeutic agents.

Four lecture and three laboratory hours a week, winter quarter. Staff.

171ab. PHARMACOLOGY (10). Prerequisites, anatomy, physiology, biological chemistry. A course for second-year medical students.

The principal objective is to give an understanding of the scientific basis of the use of drugs in modern therapeutics.

Three lecture and three laboratory hours a week, fall quarter; four lecture and three laboratory hours a week, winter quarter. Laboratory fee for non-medical students, \$15.00 a quarter. 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.

* Died May 31, 1951.

DEPARTMENT OF PHILOSOPHY

Professors: L. O. KATSOFF, S. A. EMERY

Assistant Professors: E. M. ADAMS, C. P. CAVARNOS, W. H. POTEAT

Part-time Instructor: E. J. NAUSS

The Department of Philosophy is a member of each division. 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.

No fixed group of courses in philosophy is required for an undergraduate major. Each student will decide his junior and senior program in consultation with his advisor. For General College students who are considering a major in philosophy the introductory courses, both systematic (21, 22, 41) and historical (42), are recommended.

Courses for Undergraduates

21. INTRODUCTORY LOGIC (5).

A study of the fundamental principles of efficient thinking as a basis for rational belief and intelligent action. Linguistic obstacles to clear and straight thinking; standards of valid reasoning, methods of inquiry.

Each quarter. Staff.

22. INTRODUCTORY ETHICS (5).

An examination of the ethical systems of Western civilization; their relevance to the goals of human life and the means of attaining them.

Each quarter. Staff.

41. THE FIELDS OF PHILOSOPHY: A SYSTEMATIC INTRODUCTION (5).

A survey of the chief philosophic fields, their interrelations and typical problems. Introduces the student to the major divisions of philosophic inquiry: ethics, epistemology, metaphysics, etc., through a program of readings from those thinkers who have most profoundly affected the contemporary mind.

Each quarter. Staff.

42. THE DEVELOPMENT OF PHILOSOPHY: AN HISTORICAL INTRODUCTION (5).

An historical survey of Western philosophy from the early Greeks to the present. Emphasis on the metaphysical, epistemological, and ethical theories of the leading thinkers.

Each quarter. Staff.

56. THE DEVELOPMENT OF ANCIENT PHILOSOPHY (5).

The growth of philosophic thought from the dawn of Greek philosophy to the beginning of the Christian era. Special attention to Plato and Aristotle.

Fall quarter. Mr. Cavarnos.

57. THE DEVELOPMENT OF MEDIAEVAL PHILOSOPHY (5).

The growth of philosophic thought in the East (Byzantium) and West from the beginning of the Christian era to the Renaissance. Special attention to Plotinus, Augustine, John the Damascene, Aquinas, and Duns Scotus.

Winter quarter. Mr. Cavarnos.

58. THE DEVELOPMENT OF MODERN PHILOSOPHY (5).

The growth of philosophic thought from the Renaissance through the nineteenth century. Chief emphasis on the seventeenth and eighteenth centuries.

Spring quarter. Mr. Emery.

63. CONTEMPORARY PHILOSOPHY (5).

A study of representative recent philosophies both as outgrowths of important movements in the history of philosophy and as interpretations of twentieth-century culture.

Fall quarter. Mr. Emery.

76. AESTHETICS (5).

Ancient, mediaeval, modern, and contemporary theories of beauty and aesthetic experience. A brief analysis of architecture, painting, literature, and music.

Spring quarter. Mr. Cavarinos.

81. PHILOSOPHICAL IDEAS IN CONTEMPORARY LITERATURE (5).

The mutual influence of technical philosophy and *belle lettres* as seen in selected recent poems, essays, plays, and novels.

(Not offered in 1952-1953).

91. PHILOSOPHY OF THE STATE (5).

A survey of the conceptions of the just state from Plato to contemporary times with special attention to the relations between theories of government and more general philosophical problems such as the nature of man, theory of knowledge, ontology, ethics, and the basis and meaning of law.

Winter quarter. Mr. Poteat.

96. PHILOSOPHY OF RELIGION (5).

Analysis of elements of religious thought and practice with reference to chief philosophers from Descartes through Dewey. Problems of knowledge and faith; the existence and nature of God.

Fall quarter. Mr. Poteat.

100a, 100b, 100c. COURSES FOR HONORS (5 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

121. KANT (5). Prerequisite, Philosophy 58 or special permission.

A study of Kant's critical philosophy as rooted in eighteenth-century rationalism and empiricism and as initiating German idealism.

(1952-1953 and alternate years). *Winter quarter.* Mr. Emery.

122. PLATO AND ARISTOTLE (5). Prerequisite, Philosophy 56 or special permission.

Plato's and Aristotle's theories of the Universe, God, and Man. Their teaching on fine art and on the good life.

(1952-1953 and alternate years). *Winter quarter.* Mr. Cavarinos.

123. CONTINENTAL RATIONALISM (5). Prerequisite, Philosophy 58 or special permission.

The metaphysical systems of Descartes, Spinoza, and Leibniz as seventeenth-century attempts to reconcile the mediaeval tradition and the early developments of modern natural science.

(1952-1953 and alternate years). *Fall quarter.*

124. PHILOSOPHY OF THE NINETEENTH CENTURY (5). Prerequisite, Philosophy 58 or special permission.

German idealism, materialism, and voluntarism; French positivism and its opponents; English empiricism and its idealistic critics. Mutual influences and bearings on the twentieth century.

(1951-1952 and alternate years). *Spring quarter*.

125. BRITISH EMPIRICISM (5). Prerequisite, Philosophy 58 or special permission.

An epistemological study of Locke, Berkeley, and Hume in relation to the preceding continental rationalism and the subsequent Kantian synthesis.

(1951-1952 and alternate years). *Spring quarter*. Mr. Emery.

126. CONTEMPORARY AMERICAN PHILOSOPHY (5). Prerequisite, Philosophy 22 or 41 or 58 or special permission.

The major problems considered by such contemporary American philosophers as Dewey, Whitehead, Santayana and others. The approach is in terms of such fields as philosophy of religion, of science and of metaphysics. The influence of contemporary events on the selection of problems.

(1952-1953 and alternate years). *Spring quarter*. Mr. Kattsoff.

127. AUGUSTINE AND AQUINAS (5). Prerequisite, Philosophy 56 or 57 or 122 or special permission.

A study of the philosophy of Augustine, and Aquinas; their theories of God, Nature, Man, and the State; their significance for modern man.

(1951-1952 and alternate years). *Winter quarter*. Mr. Cavarinos.

128. PROBLEMS IN CONTEMPORARY PHILOSOPHY (5). Prerequisite, Philosophy 63 or special permission.

Careful discussion of a few selected topics especially important in current philosophical literature.

(Not offered in 1952-1953).

129. THE DEVELOPMENT OF AMERICAN PHILOSOPHY (5). Prerequisite, Philosophy 58 or special permission.

The gradual emergence of systematic American Philosophy from its matrix in earlier theological, social, and literary thought. Chief emphasis on the late nineteenth century.

(1952-1953 and alternate years). *Spring quarter*. Mr. Emery.

131. HEGEL (5). Prerequisite, Philosophy 58 or special permission.

Hegel's Absolute Idealism: its roots in Kant's critical philosophy and its influence on subsequent thought in Europe and America.

(1952-1953 and alternate years). *Spring quarter*.

134. INTRODUCTION TO SYMBOLIC LOGIC (5).

The symbolic approach to the logic of classes, propositions, propositional functions, and the nature of implication.

Winter quarter. Mr. Kattsoff.

141. PHILOSOPHY OF MATHEMATICS (5). Prerequisite, a fair degree of mathematical maturity.

The foundations of mathematics. Some metaphysical implications of the general structure of mathematics. A consideration of the major schools of thought on the problems connected with the foundation of mathematics. The solutions of Formalism, Intuition, and Logistics to such questions as the definition of number, the paradoxes, etc. will be studied.

(1951-1952 and alternate years). *Winter quarter*. Mr. Kattsoff.

142. FOUNDATIONS OF THE SOCIAL SCIENCES (Sociology 142) (5).

Prerequisites, two courses in philosophy, psychology, or sociology.

An attempt to establish an approach to the social sciences based on the notion of purposive behavior. The course seeks to construct a theoretical framework for a modern social science and a possible science of man.

Spring quarter. Mr. Kattsoff.

143. BASIC CONCEPTS OF THE NATURAL SCIENCES (5).

Reason and Nature. Scientific method. The concepts of physics, biology, and psychology. The implications of contemporary science for the nature of reality, religion, and man.

Fall quarter. Mr. Kattsoff.

182. PHILOSOPHY OF SOCIAL ETHICS (5). Prerequisites, two courses in philosophy, psychology, or sociology, or special permission.

An analysis of scientific, technological, and ethical inquiry and their respective roles in the processes of government.

Fall quarter. Mr. Adams.

235. ADVANCED TOPICS IN LOGIC (5). Prerequisites, Philosophy 21 and 134.

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.

(1952-1953 and alternate years). *Fall quarter.* Mr. Kattsoff.

263. CONCEPTS IN POLITICAL PHILOSOPHY (5). Prerequisite, Philosophy 91 or special permission.

An examination of the basic concepts of political philosophy such as the state, law, right, power, authority, in relation to metaphysics and ethics.

(1952-1953 and alternate years). *Spring quarter.* Mr. Poteat.

301. SEMINAR IN METAPHYSICS (5).

Fall quarter. Mr. Kattsoff or Mr. Cavarinos.

302. SEMINAR IN EPISTEMOLOGY (5).

Winter quarter. Mr. Adams.

303. SEMINAR IN PHILOSOPHY OF VALUES (5).

Spring quarter. Mr. Adams.

304, 305, 306. SEMINARS IN THE HISTORY OF PHILOSOPHY (5 each).

Topics will be decided in personal conference.

(Not offered in 1952-1953).

307. SEMINAR IN PHILOSOPHY OF RELIGION (5). Prerequisite, Philosophy 96 or special permission.

A consideration of advanced topics in the philosophy of religion with an emphasis upon the explication of constructive positions on such topics as the relation of faith and reason, the nature of God, the nature of man, and related subjects.

(1951-1952 and alternate years). *Spring quarter.* Mr. Poteat.

311. SPECIAL READINGS (5).

Each quarter. Staff.

DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

Director: R. A. FETZER

Professors: O. K. CORNWELL, R. E. JAMERSON, G. E. SHEPARD

Associate Professors: RUTH WHITE FINK, *H. C. HOUSE, JR., C. E. MULLIS, W. H. PEACOCK

Assistant Professors: †E. M. ALLEN, W. W. RABB, RUTH PRICE, DORIS HUTCHINSON, L. R. CASEY

Instructors: CARL BLYTH, JAMES CAMP, ‡ROBERT COX, C. P. ERICKSON, JAMES GILL, THEODORE HAZELWOOD, BUNN HEARN, JOSEPH HILTON, †CHARLES JUSTICE, MARY FRANCES KELLAM, J. F. KENFIELD, FITZ LUTZ, WILLIAM MEADE, WALTER PUPA, GEORGE RADMAN, M. D. RANSOM, M. Z. RONMAN, TOM SCOTT, CARL SNAVELY, HAMMOND STRAYHORN, R. A. WHITE

Graduate Assistants: THEODORE BONDI, DONALD BORING, PATRICK F. EAREY, GAYLER EUGENE HOOKS, CHARLES C. RICE, ELIZABETH UMSTEAD, ERNEST WILLIAMSON

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 help to meet the need in North Carolina for knowledge about individual and public health and to promote widespread participation in wholesome recreation.

Students who choose a major in health and physical education will take the following courses: Physical Education 75, 76, 77, 78, 79, 86, 87. In addition men will take Physical Education 65, 66, 67, 68, 69, 70; women will take Physical Education 54, 55, 56, 57, 58, 59, 83a. For teacher certification both men and women will take Education 41, 71, 99, 63, 64. Those who choose a minor will select twenty hours of work from Physical Education 77, 78, 86, Education 63, and electives from Physical Education 65, 66, 67, 68, 69, and 70 for men, and Physical Education 54, 55, 56, 57, 58, and 59 for women.

All majors in health and physical education must have ten hours in biological science to satisfy state certification standards.

* Absent on leave, 1951-1952.

† Absent on leave for military duty.

‡ Resigned March 1, 1952.

Courses for Undergraduates

HYGIENE 11. PERSONAL HYGIENE (3). Required of freshmen.

Three hours a week, fall, winter, or spring quarter. Staff.

HYGIENE 11W. PERSONAL HYGIENE (3). Required of freshmen women.

Three hours a week, fall quarter. Miss Hutchinson.

HYGIENE 12W. HYGIENE (3). For women.

Three hours a week, fall, winter, or spring quarter. Miss Hutchinson.

1, 2, 3. PHYSICAL EDUCATION (1 each). Required of freshmen men.

Three hours a week, fall, winter, and spring quarters. Staff.

4, 5, 6. PHYSICAL EDUCATION (1 each). Required of sophomore men.

Three hours a week, fall, winter, and spring quarters. Staff.

11W, 12W, 13W. PHYSICAL EDUCATION (1 each). Required of freshmen women.

Two hours a week, fall, winter, and spring quarters. Staff.

21W, 22W, 23W. PHYSICAL EDUCATION (1 each). Required of sophomore women.

Two hours a week, fall, winter, and spring quarters. Staff.

31W, 32W, 33W. PHYSICAL EDUCATION (1 each). Required of junior women. (See 31E.)

Two hours a week, fall, winter, and spring quarters. Staff.

31E, 32E, 33E. PHYSICAL EDUCATION (1 each). Required of all junior women majoring in elementary education.

Two hours a week, fall, winter, and spring quarters. Staff.

For Women Who Are Majoring in Physical Education:

54. PHYSICAL EDUCATION (2).

This course includes the fundamental skills, techniques, and teaching methods in field hockey, soccer, speedball, field ball, and volleyball. Opportunity is given for students to take National Officials' Rating examinations.

Six hours a week, fall quarter. Misses Kellam, Hutchinson.

55. PHYSICAL EDUCATION (3).

This course presents methods and materials in the teaching of basketball, stunts and tumbling, and conditioning exercises. Opportunity is given for students to take the National Officials' Rating Test in basketball.

Nine hours a week, winter quarter. Mrs. Fink, Misses Kellam, Hutchinson.

56. PHYSICAL EDUCATION (3).

This course includes the methods and materials in the conduct of camping, including experience in the planning and execution of camping and other outing trips.

Nine hours a week, spring quarter. Miss Hutchinson.

57. PHYSICAL EDUCATION (3).

This course presents the fundamental skills and teaching methods in archery, swimming, tennis, and recreational games. Opportunity is given for students to take National Officials' Rating examinations in tennis.

Nine hours a week, fall quarter. Miss Kellam, Mrs. Fink, Miss Hutchinson.

58. PHYSICAL EDUCATION (2).

This course includes the methods and materials in the teaching of folk, square, social, and modern dance.

Six hours a week, winter quarter. Miss Price.

59. PHYSICAL EDUCATION (3).

This course presents the fundamental skills and teaching methods in badminton, golf, lifesaving, and softball. Opportunity is given for students to take National Officials' Rating examinations.

Nine hours a week, spring quarter. Misses Kellam, Hutchinson.

For Men Who Are Majoring in Physical Education:

65. PHYSICAL EDUCATION (3).

This course includes theory, technics, and skills in the coaching of basketball and tennis.

Nine hours a week, fall and spring quarters. Messrs. Scott, Kenfield.

66. PHYSICAL EDUCATION (3).

This course includes technics and skills in the coaching of football; technics and skills in teaching handball.

Nine hours a week, winter and spring quarters. Messrs. House, Strayhorn.

67. PHYSICAL EDUCATION (3).

Methods, materials, and practice in tumbling, boxing, and wrestling for prospective teachers in public schools and colleges.

Nine hours a week, fall and winter quarters. Messrs. Meade, Ronman, Peacock.

68. PHYSICAL EDUCATION (3).

This course includes theory, technics, and skills in the coaching of baseball and track.

Nine hours a week, fall and spring quarters. Messrs. Rabb, Ranson, Hilton.

69. PHYSICAL EDUCATION (3).

Methods, materials, and practice in rhythmic and recreational games for teachers in public schools and colleges.

Six hours a week, fall and winter quarters. Mr. Rabb, Miss Price.

70. PHYSICAL EDUCATION (3).

Methods, materials, and practice in swimming, speedball, soccer, volleyball.

Six hours a week, winter and spring quarters. Messrs. Allen, Jamerson, Casey.

For All Undergraduate Majors in Physical Education:

75. ANATOMY (5).

This course is designed to teach the fundamentals of anatomy as they apply functionally to the area of health and physical education.

Fall and winter quarters. Mr. Blyth.

76. PHYSIOLOGY (5). Prerequisite, Physical Education 75 or the equivalent of Zoology 41, 42.

A lecture course in elementary physiology covering the various systems of the body.

Winter and spring quarters. Mr. Blyth.

77. PRINCIPLES OF PHYSICAL EDUCATION (3).

A study of the relationship and contribution of physical education to general education; historical backgrounds, basic biological, physiological, psychological, and sociological backgrounds of the modern program.

Three hours a week, winter and spring quarters. Mr. Shepard.

78. PERSONAL AND COMMUNITY HYGIENE (5).

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.

Fall and spring quarters. Mr. Mullis.

79. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION (3).

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.

Three hours a week, fall and spring quarters. Mr. House.

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. Required of women majoring in physical education and of elementary education majors.

Three hours a week, fall, winter, and spring quarters. Miss Hutchinson.

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.

Three hours a week, fall and winter quarters. Mr. Casey.

86. ORGANIZATION AND ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION (5).

This course deals with the policies and problems of organization and administration of health and physical education programs in schools.

Fall and winter quarters. Mrs. Fink, Mr. Jamerson.

87. INDIVIDUAL PHYSICAL EDUCATION (5).

This course is a study of problems relating to body mechanics, the needs of the physically handicapped student, and the prevention and treatment of athletic injuries.

Winter and spring quarters. Mr. Rabb, Mrs. Fink.

Courses for Graduates and Advanced Undergraduates

120. PRINCIPLES OF PHYSICAL EDUCATION (3). Prerequisite, undergraduate work in education and psychology.

Three hours a week, fall quarter. Mr. Jamerson.

121ab. ADMINISTRATION OF PHYSICAL EDUCATION (5).

Fall quarter. Mr. Shepard, Mrs. Fink.

123. PERSONAL HYGIENE (3). Prerequisite, basic courses in science.

Three hours a week, winter quarter. Mr. Jamerson.

126ab. INDIVIDUAL PHYSICAL EDUCATION (5). Prerequisite, anatomy and physiology, or equivalent.

Spring quarter. Mr. Jamerson, Mrs. Fink.

127. INTRAMURAL AND EXTRAMURAL ACTIVITIES FOR SCHOOLS AND COLLEGES (3).

Three hours a week, fall quarter. Mr. Jamerson.

173. COMMUNITY RECREATION (Sociology 173) (5). Mr. Meyer.

175. EXTRACURRICULAR ACTIVITIES (Education 175) (5). Mr. Plemmons.

Courses for Graduates

220. TESTS AND MEASUREMENTS IN HEALTH AND PHYSICAL EDUCATION (3).

Three hours a week, spring quarter. Messrs. Cornwell, Peacock.

221. PHYSIOLOGY OF EXERCISE (5). Prerequisites, zoology, anatomy, and physiology.

Three lecture and four laboratory periods a week, winter quarter. Laboratory fee, \$5.00. Mr. Miller.

222. PRINCIPLES OF HEALTH EDUCATION (3). Prerequisite, adequate background in science.

Three hours a week, spring quarter.

224. SCHOOL AND COMMUNITY HYGIENE (3). Prerequisite, adequate background in science.

Three hours a week, spring quarter. Mrs. Fink, Mr. Cornwell.

225. MODERN PROBLEMS IN PHYSICAL EDUCATION (3). Prerequisites experience and advanced work in physical education and education.

Three hours a week, winter quarter. Messrs. Cornwell, Peacock, Shepard.

320. RESEARCH IN PHYSICAL EDUCATION (3). Prerequisites, experience and advanced work in the field.

Fall quarter. Messrs. Cornwell, Peacock, Mrs. Fink.

341abc. SEMINAR COURSE (3 each). Prerequisites, adequate training and experience, and consent of the instructor.

Three hours a week, fall, winter, or spring quarter. Messrs. Cornwell, Jamerson, Shepard, Peacock.

DEPARTMENT OF PHYSICS

Professors: P. E. SHEARIN, OTTO STUHLMAN, JR., KARL FUSSLER, NATHAN ROSEN

Associate Professors: J. W. STRALEY, W. A. BOWERS, A. V. MASKET

Assistant Professors: E. D. PALMATIER, LANGDON BERRYMAN

Part-time Instructors: H. R. BREWER, D. F. HERRING, F. E. KINARD, J. T. MEERS, ROSS SCROGGS, ROBERT VAN NOSTRAND

Teaching Fellow: ROBERT W. BREHME

Technician: NESTORE DICOSTANZO

Apparatus Custodian: W. D. HARRELL

Requirements for Bachelor of Science in Physics

GENERAL COLLEGE

English 1, 2, 3, 4 (See p. 143)	Social Science 1-2
German or French (See p. 143)	Physics 34, 35 (or 24-25), 54 or 52
Mathematics 7, 8; 31, 32, 33 (or 31, 34-35-36)	Physical Education 1, 2, 3, 4, 5, 6 Hygiene 11

JUNIOR YEAR

Chemistry 1-2, 31 (Chem. 3 may be substituted for 31)	Mathematics 141 Physics 52 or 54, 53, 56, 61, 62
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SENIOR YEAR

*English 59	B. Mathematics 110, 111, 131, 147, 149, 171, 172, 176, 191
Three courses from group A: A. Physics 91, 92, 99, 101, 102, 103, 120, 141, 150, 158, 160, 161, 162, 163, 170	Chemistry 31, 41, 42, 61, 62, 181, 182, 183
Two courses from group B:	Three non-divisional electives

Requirements for graduation, at least 188 quarter hours.

Courses for Undergraduates

20. TWENTIETH-CENTURY PHYSICS (6). No prerequisite.

An introductory course dealing with modern developments in physics. Includes such topics as X-rays, structure of atoms and molecules, the neutron, radioactivity, the atomic bomb, and cosmic rays.

Five lecture and two laboratory hours a week, any quarter. Laboratory fee, \$4.00. Staff.

24-25. GENERAL PHYSICS (12). Prerequisite or corequisite, Mathematics 7 or equivalent.

NOTE: Both parts must be completed in order to receive any credit.

Five lecture and two laboratory hours a week, any quarter. Laboratory fee, \$4.00. Staff.

34-35. GENERAL PHYSICS (12) Prerequisites, Mathematics 7, 8.

Similar to Physics 24-25 but at a more advanced level. Recommended primarily for physics majors and others who plan to take advanced courses in physics.

Five lecture and two laboratory hours a week, any quarter. Laboratory fee, \$4.00 a quarter. Staff.

45. PHOTOGRAPHY (5).

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Scroggs.

51. X-RAY TECHNIQUE: BIOPHYSICS (5). Prerequisite, one year of general college physics.

Radiographic theory and technique, primarily for premedical students, pre-dental students, and medical technologists. May be used as a third or fourth year elective for S.B. in Medical Technology.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$15.00. Mr. Stuhlman.

* A non-divisional elective may be substituted if permission be granted by the physics department.

52. MECHANICS (5). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, integral calculus.

Four lecture and three laboratory hours a week, fall and spring quarters. Laboratory fee, \$3.00. Mr. Fussler.

53. OPTICS (5). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, integral calculus.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Stuhlman.

54. MODERN DEVELOPMENTS IN PHYSICS (5). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, differential calculus.

Winter and spring quarters. Mr. Shearin.

56. HEAT (5). Prerequisite, Physics 35 or 25 with permission of instructor, and integral calculus.

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Straley.

57. BIOPHYSICS (5). Prerequisite, Physics 25 or 35. For biophysicists, pre-medical or pre-dental students, and medical technologists.

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Stuhlman.

61. ELECTRICITY AND MAGNETISM (5). Prerequisite, Physics 35 or 25 with permission of the instructor; prerequisite or corequisite, integral calculus.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Palmatier.

62. ALTERNATING CURRENT CIRCUITS (5). Prerequisite, Physics 61.

Four lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Masket.

91, 92. RESEARCH FOR SENIORS (3 each).

Laboratory fee, \$5.00 each quarter. Staff.

99. INTRODUCTORY MATHEMATICAL PHYSICS (5). Prerequisites, Physics 52, 56, 61, 62, Mathematics 141.

This course will stress the application of mathematical techniques such as vector analysis, Fourier Series, and Green's Functions to physical problems. It is intended primarily for seniors who do not take Physics 101, 102, 103.

Fall quarter. Mr. Masket.

NOTE: Courses in Directed Teaching of High School Science and in Materials and Methods of Teaching High School Science will be found under the Department of Education.

Courses for Graduates and Advanced Undergraduates

101, 102, 103. INTRODUCTION TO THEORETICAL PHYSICS (5 each). Prerequisites, Physics 52, 56, 62, Mathematics 141; Mathematics 171 highly desirable but may be taken concurrently.

Fall, winter, and spring quarters. Mr. Bowers.

120. HEAT AND THERMODYNAMICS (5). Prerequisite, Physics 50, or by permission.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Straley.

141. ELECTRICITY AND MAGNETISM (5). Prerequisites, Physics 52 and 62, Mathematics 141.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Masket.

150. PHYSICAL OPTICS (5). Prerequisites, Physics 53, Mathematics 141.

(1952-1953 and alternate years.) *Fall quarter. Mr. Bowers.*

158. SOUND (5). Prerequisites, Physics 52 and Mathematics 141.

(1951-1952 and alternate years.) *Four lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Shearin or Mr. Berryman.*

160. ELECTRONICS AND ATOMIC PHYSICS (5). Prerequisites, calculus and two of the following: Physics 52, 53, 54, 61.

(1952-1953 and alternate years.) *Spring quarter. Mr. Stuhlman.*

161. NUCLEAR PHYSICS (5). Prerequisites, Physics 54, and one of the following: Physics 52, 53, 56, 61; Mathematics 141.

Fall quarter. Mr. Shearin.

162. ATOMIC SPECTROSCOPY (5). Prerequisite, Physics 54.

Four lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Straley.

163. MOLECULAR SPECTROSCOPY (5). Prerequisite, one of the following: Physics 53, 54, 56.

(1951-1952 and alternate years.) *Fall quarter. Mr. Straley.*

Courses for Graduates

201. BOUNDARY PROBLEMS IN CLASSICAL PHYSICS (5). Prerequisites, Mathematics 141, 172, Physics 103; Mathematics 149 is desirable.

(1952-1953 and alternate years.) *Winter quarter. Mr. Rosen.*

210. ELASTICITY AND HYDRODYNAMICS (6). Prerequisites, Mathematics 141, Physics 103.

Summer session only. Mr. Rosen.

221. KINETIC THEORY AND STATISTICAL MECHANICS (5). Prerequisites, Physics 103 and 120, except by permission; Physics 260 is desirable.

(1952-1953 and alternate years.) *Spring quarter. Mr. Bowers.*

240. ADVANCED ELECTROMAGNETIC THEORY (5). Prerequisites, Physics 103 or 141 and Mathematics 141.

(1951-1952 and alternate years.) *Fall quarter. Mr. Rosen.*

260, 261, 262. QUANTUM MECHANICS (5 each). Prerequisites, Physics 103 and 162; Mathematics 149 is desirable.

Fall, winter, and spring quarters. Mr. Rosen.

264. SPECTROSCOPY OF THE INFRA-RED (5). Prerequisites, Physics 53 and 260.

(1952-1953 and alternate years.) *Spring quarter. Mr. Straley.*

267. CURRENT ADVANCES IN PHYSICS (5). Prerequisite, permission of the instructor.

Fall, winter, or spring quarter. Any of the graduate professorial staff.

268. ADVANCED THEORETICAL NUCLEAR PHYSICS (5). Prerequisites, Physics 161 and 262, except by permission.
(1952-1953 and alternate years.) *Fall quarter*. Mr. Rosen.
269. ADVANCED EXPERIMENTAL NUCLEAR PHYSICS (5). Prerequisites, Physics 161, 261.
(1951-1952 and alternate years.) *Spring quarter*. Mr. Masket.
271. THEORY OF THE SOLID AND LIQUID STATES (5). Prerequisite, Physics 260.
(1951-1952 and alternate years.) *Winter quarter*. Mr. Bowers.
275. THEORY OF RELATIVITY (5). Prerequisites, Mathematics 141, Physics 103.
(1951-1952 and alternate years.) *Spring quarter*. Mr. Rosen.
280. COSMIC RAYS (5). Prerequisites, Physics 103 and 161.
(1951-1952 and alternate years.) *Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$5.00.* Mr. Palmatier.
301. RESEARCH (5 or more).
Ten or more laboratory or computation hours a week, any quarter. Any member of the graduate professorial staff.

DEPARTMENT OF PHYSIOLOGY

Professors: J. H. FERGUSON, A. T. MILLER

Associate Professor: E. P. HIATT

Assistant Professor: J. H. BROWN

Part-time Instructors: E. I. GREENE, P. H. MUEHLKE, W. C. NUNGESSER

Technicians: R. S. SPARROW, D. C. WHITTINGHILL

Courses for Undergraduates

51. GENERAL COURSE IN PHYSIOLOGY (5). Prerequisites, general courses in zoology and chemistry. *Elective.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Messrs. Ferguson, Hiatt, Brown, and staff.

106. PHYSIOLOGY A (9). 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, the autonomies, and central nervous system. 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. Laboratory fee for non-dental students, \$7.50. Messrs. Ferguson, Miller, Hiatt, Brown, and staff.

141. PHYSIOLOGY OF NERVOUS SYSTEM I (3). Prerequisite, consult the instructors. *Elective.

Three lecture hours a week, winter quarter. Fee for non-medical students, \$5.00. Messrs. Ferguson, Miller, Hiatt, Brown, and staff.

* Before registering for this work the academic student must secure the permission of his dean.

142. GENERAL COURSE IN PHYSIOLOGY II (15). Prerequisite, consult the instructors. *Elective.

Seven lecture and sixteen laboratory hours a week, spring quarter. Laboratory fee for non-medical students, \$10.00. Messrs. Ferguson, Miller, Hiatt, Brown, and staff.

Courses for Graduates

201. ENDOCRINOLOGY (5). Available to selected students.

Three lecture and four laboratory hours a week, fall or winter quarter. Laboratory fee, \$10.00. Mr. Brown.

202. BLOOD (5). Available to selected students.

Three lecture and four laboratory hours a week, fall or winter quarter. Laboratory fee, \$10.00. Mr. Ferguson.

211. EXERCISE AND STRESS PHYSIOLOGY (5). Prerequisites, Physiology 141, 142, Biological Chemistry 101 and 102.

Three lecture and four laboratory hours a week, fall or winter quarter. Laboratory fee, \$10.00. Mr. Miller.

212. RENAL PHYSIOLOGY AND WATER BALANCE (5). Prerequisites, Physiology 141, 142, Biological Chemistry 101 and 102.

Three lecture and four laboratory hours a week, fall or winter quarter. Laboratory fee, \$10.00. Mr. Hiatt.

301, 302, 303. RESEARCH IN PHYSIOLOGY (5 or more).

Hours to be arranged with instructor. Fall, winter, and spring quarters. Laboratory fee, \$5.00. Messrs. Ferguson, Miller, Hiatt, Brown, and staff.

DEPARTMENT OF POLITICAL SCIENCE

Professors: *C. B. ROBSON, W. W. PIERSON, E. J. WOODHOUSE, K. C. FRAZER, P. W. WAGER, W. S. JENKINS, †F. W. COKER, ‡S. V. LINARES-QUINTANA, G. A. HEARD

Associate Professors: F. G. GIL, D. G. MONROE

Assistant Professors: F. N. CLEVELAND, W. R. PULLEN

Part-time Instructors: W. W. BROWN, E. C. BUELL, R. L. DUNCAN, W. G. MCCALL, G. S. PARTHEMOS, S. H. RIES, J. S. ROBERTS, W. W. THOMAS, L. W. WILLIAMSON, G. D. WILSON

Instructor in Social Science: F. H. HARRIS

Teaching Fellow: C. B. STEPHENSON

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, 52, 53, 81, 86, and 87), and a sufficient number of other political science courses to make a total of eight. The courses must be distri-

* Absent on leave, 1951-1952.

† Burton Craige Visiting Professor of Jurisprudence, winter quarter, 1952.

‡ Burton Craige Visiting Professor of Jurisprudence, fall quarter, 1951.

buted 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 the United States Civil Service Commission's annual examination for positions as Junior Management Assistants. He may also obtain the foundation for graduate professional training in public administration.

Because 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 24-25, Political Science 101, History 22 or 72 or 114, Economics 170, Business Administration 71, and English 52.

The department will be glad to advise students interested in preparing for the public service.

Courses for Undergraduates

41. INTRODUCTION TO GOVERNMENT IN THE UNITED STATES (5).

The nature of the "state," the role of the government, Colonial heritages, framing of the U. S. Constitution, principles underlying constitutional government, citizenship, civil rights, political parties and the national electoral process, the national executive, congressional organization and the process of law making, the federal judiciary, with some references to intergovernmental relations, areas of national action and the administrative process.

Each quarter. Materials fee, \$1.00. Mr. Monroe, Chairman.

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 (5).

Designed as complementary to Political Science 41, especially for students not majoring in political science. 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. The opening phase of the course discusses the nature of politics and the role played by politicians, certain characteristics of political behavior in the United States, and the functions of political parties and pressure groups—all as an aid in understanding how government policies are formed.

Winter and spring quarters. Materials fee, \$1.00. Mr. Roberts.

52. THE GOVERNMENTS OF EUROPE (5).

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 quarters. Materials fee, \$1.00. Mr. Heard.

53. THE FAR EAST IN WORLD POLITICS (5).

A survey of the international relations of the Far East and an examination of postwar developments, with emphasis on the occupation of Japan, Communist China, the rise of the United States of Indonesia and the Philippine Republic.

Winter quarter. Materials fee, \$1.00. Mr. Shen.

54. THE SCANDINAVIAN DEMOCRACIES (5).

The structure and activities of the governments of Denmark, Norway, and Sweden with references to Finland and Iceland. Particular attention given to social welfare legislation, economic regulation, and foreign policy.

Spring quarter. Mr. Roberts.

81. STATE GOVERNMENT IN THE UNITED STATES (5).

The organization and administrative methods of state government, with some examination of the relationships between the state government and the counties, cities, and towns.

Each quarter. Materials fee, \$1.00. Mr. Monroe.

86. INTERNATIONAL RELATIONS AND WORLD POLITICS (5).

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 quarters. Materials fee, \$1.00. Messrs. Frazer, McCall.

87. INTERNATIONAL RELATIONS OF THE LATIN AMERICAN REPUBLICS (5).

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 and spring quarters. Materials fee, \$1.00. Mr. Gil.

91-92. HONORS COURSES (10). Required of all students reading for Honors in Political Science.

Courses for Graduates and Advanced Undergraduates

101. PUBLIC ADMINISTRATION (5).

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 quarters. Materials fee, \$1.00. Messrs. Wager, Cleaveland.

105. PUBLIC PERSONNEL ADMINISTRATION (5).

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.

Winter quarter. Materials fee, \$1.00. Mr. Wager.

121. THE GOVERNMENT OF ENGLAND (5).

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 1951-1952.) *Winter quarter. Materials fee, \$1.00. Mr. Robson.*

123. COMPARATIVE GOVERNMENT (5).

A comparative study of the principles, structure, and operation of contemporary governmental systems with special attention to those of continental Europe.

Winter quarter. Materials fee, \$1.00. Mr. Heard.

126. THE HISPANIC EMPIRES IN AMERICA (5).

A study of the political and social institutions in the Spanish and Portuguese colonial systems and their development.

Fall quarter. Materials fee, \$1.00. Mr. Gil.

127. GOVERNMENT OF LATIN AMERICAN STATES (5).

The forms of organization, the functions and operations of government in Latin America with emphasis on present conditions, tendencies, and peculiar types of institutions.

Winter quarter. Materials fee, \$1.00. Messrs. Pierson, Gil.

128. COMPARATIVE LAW OF LATIN AMERICA (5).

A comparative study of fundamental problems of public law in Latin America. Special emphasis is given to a comparison of the United States system and that of Argentina with specific reference to jurisprudence, and a parallel study of *The Federalist* and the *Bases* of Alberdi, and of methods in Latin America.

Fall quarter. Materials fee, \$1.00. Mr. Linares-Quintana.

132. MUNICIPAL GOVERNMENT IN THE UNITED STATES (5).

Chartered city and town government, its origins, history, forms, and relations to national, state, and county governments.

Fall quarter. Materials fee, \$1.00. Mr. Woodhouse.

133. MUNICIPAL ADMINISTRATION IN THE UNITED STATES (5).

Administrative organization, procedure, and problems of cities and towns.
Winter quarter. Materials fee, \$1.00. Mr. Woodhouse.

134. COUNTY GOVERNMENT AND ADMINISTRATION (5).

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 quarter. Materials fee, \$1.00. Mr. Wager.

141. INTRODUCTION TO INTERNATIONAL LAW (5).

Treatises, documents, and cases are studied to acquaint the student with the history and the principles of the law of nations, and the organization and procedure of international tribunals.

Fall quarter. Materials fee, \$1.00. Mr. Frazer.

142. INTERNATIONAL ORGANIZATION AND INSTITUTIONS (5).

The organization and work of the United Nations and other international institutions are studied in connection with the general principles of international organization.

Winter quarter. Materials fee, \$1.00. Mr. Frazer.

144. THE ORGANIZATION AND CONDUCT OF THE FOREIGN RELATIONS OF THE UNITED STATES (5).

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.

Spring quarter. Materials fee, \$1.00. Mr. Frazer.

145. CONTEMPORARY INTERNATIONAL RELATIONS OF THE UNITED STATES (5). 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.

Spring quarter. Materials fee, \$1.00. Mr. Frazer.

147. INTER-AMERICAN REGIONAL ORGANIZATIONS (5).

The evolution of the inter-American security system, recent Pan-American conferences and the activities and problems of the various continental agencies.

Spring quarter. Materials fee, \$1.00. Mr. Gil.

151. THE ELEMENTS OF POLITICAL SCIENCE (5).

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 quarter. Materials fee, \$1.00. Mr. Pierson.

154. DEVELOPMENT OF THE ENGLISH CONSTITUTION (History 141) (5).

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.

(Not offered in 1951-1952.) *Fall quarter.* Mr. Godfrey.

155. THE CONSTITUTION OF THE UNITED STATES (History 175) (5).

A study of the fundamental principles of constitutional interpretation and practice in the United States by means of lectures, textbooks, and cases.

Each quarter. Materials fee, \$1.00. Mr. Jenkins.

156. CONTEMPORARY PROBLEMS IN GOVERNMENT (5).

Laboratory problems in international, national, state, and local government and administration based on general comparison of United States, British, and Canadian governments.

Spring quarter. Materials fee, \$1.00. Mr. Woodhouse.

157. HISTORICAL JURISPRUDENCE, ANCIENT AND MEDIEVAL (5).

Babylonian, Egyptian, Greek, and Hebrew Law; intensive study of evolution of Roman Law, of its revival under Justinian, and a survey of its influence in the medieval and the modern worlds.

Winter quarter. Materials fee, \$1.00. Mr. Woodhouse.

158. HISTORICAL JURISPRUDENCE, ANGLO-AMERICAN (5).

Evolution of English Law to the American Revolution, its adaptation to colonial conditions, the development of branches of it in forty-seven states of the United States.

Spring quarter. Materials fee, \$1.00. Mr. Woodhouse.

159. THE BRITISH EMPIRE (History 159) (5).

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.

(Not offered in 1951-1952.) *Spring quarter. Mr. Godfrey.*

162. AMERICAN POLITICAL THOUGHT (5).

An analysis of the ideas underlying government and politics in the United States. (Not offered in 1951-1952.) *Fall quarter. Materials fee, \$1.00. Mr. Robson.*

165. POLITICAL THOUGHT OF THE EIGHTEENTH CENTURY (5).

The development of liberal and democratic political thought, with emphasis on the ideas of the American and the French Revolutions.

Spring quarter. Materials fee, \$1.00. Mr. Pierson.

166. RECENT AND CONTEMPORARY POLITICAL THOUGHT (5).

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.

Winter quarter. Materials fee, \$1.00. Mr. Coker.

167. POLITICAL THOUGHT IN LATIN AMERICA (5).

An analysis of the development of political philosophy in Latin America with an examination of the evolution of democratic thought.

(Not offered in 1951-1952.) *Spring quarter. Materials fee, \$1.00. Mr. Pierson.*

175. POLITICAL PARTIES AND ELECTORAL PROBLEMS IN THE UNITED STATES (5).

Development of political parties and of nomination and election machinery and procedure. Intensive study of present organization, procedure, and problems of parties and of national, state, and local election laws.

Fall quarter. Materials fee, \$1.00. Mr. Woodhouse.

181. RECENT NATIONAL POLICY AND ADMINISTRATION (5). 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 quarter. Materials fee, \$1.00. Mr. Cleaveland.

185. FINANCIAL ADMINISTRATION (5).

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.

Spring quarter. Materials fee, \$1.00. Mr. Wager.

191. PUBLIC FINANCE (Economics 141) (5). Additional prerequisite, Economics 31-32 or equivalent.

Every quarter. Messrs. Heer, Ashby.

192. PROBLEMS IN FEDERAL FINANCE (Economics 242) (5). Additional prerequisite, Economics 141.

(1951-1952 and alternate years.) *Fall quarter. Mr. Heer.*

193. PROBLEMS IN STATE AND LOCAL FINANCE (Economics 143) (5). Additional prerequisite, Economics 141.

Winter quarter. Mr. Heer.

197. GOVERNMENT AND BUSINESS (Economics 197) (5). Additional prerequisite, Economics 31-32 or equivalent.

Winter and spring quarters. Messrs. Hobbs, Carter.

Courses for Graduates

200. THE POLITICAL PROCESS (5).

An examination of government in action, with emphasis on the relationship between the formal and informal and between government and society.

Spring quarter. Mr. Heard.

209. PLANNING AND GOVERNMENT (City and Regional Planning 209) (5).

Survey of nature and scope of government planning, its relation to other governmental activities, and its administrative and organizational problems.

Winter quarter. Mr. Cleaveland.

210. PUBLIC ADMINISTRATION OF RESOURCES (5). 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.

Fall quarter. Materials fee, \$1.00. Mr. Wager.

221. ADMINISTRATIVE LAW (5). 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.

(1952-1953 and alternate years.) *Winter quarter. Materials fee, \$1.00. Mr. Monroe.*

225. ADMINISTRATIVE ORGANIZATION AND MANAGEMENT (5). 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 quarter. Materials fee, \$1.00. Mr. Cleaveland.

231. THE LEGISLATIVE PROCESS (5).
(1951-1952 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Jenkins.
235. THE JUDICIAL PROCESS (5). Additional prerequisite, Political Science 155 or equivalent.
(1952-1953 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Jenkins.
241. INTERNATIONAL LAW (5). Additional prerequisite, Political Science 141 or equivalent.
A study of the law of nations, chiefly as interpreted and applied by the courts and other organs of the government of the United States.
(Not offered in 1951-1952.) *Fall quarter. Materials fee, \$1.00.* Mr. Frazer.
242. INTERNATIONAL ORGANIZATIONS (5).
A course having to do with the nature, organization, and problems of international organizations. Special emphasis will be placed upon the pursuit of national interests in international organizations.
Winter quarter. Mr. Frazer.
255. PROBLEMS IN CONSTITUTIONAL LAW (5).
Fall quarter. Materials fee, \$1.00. Mr. Jenkins.

Seminar Courses for Graduates

- Prerequisite, a political science major or the equivalent.
- 301abc. MODERN INTERNATIONAL RELATIONS (9).
Conferences, three hours a week, fall, winter, and spring quarters. Materials fee, \$1.00. Mr. Frazer.
305. SEMINAR IN COUNTY ADMINISTRATION (5).
Winter or spring quarter. Materials fee, \$1.00. Mr. Wager.
- 311abc. SEMINAR IN AMERICAN POLITICAL THEORY (9).
Conferences, three hours a week, fall, winter, and spring quarters. Materials fee, \$1.00. Mr. Pierson.
- 321abc. STATE AND LOCAL GOVERNMENT (9).
Conferences, three hours a week, fall, winter, and spring quarters. Materials fee, \$1.00. Mr. Woodhouse.
331. PROBLEMS IN PUBLIC ADMINISTRATION (5).
Individual and group research projects on particular administrative agencies and significant problems of administrative theory and practice.
Winter or spring quarter. Materials fee, \$1.00. Mr. Cleveland.
341. SEMINAR COURSE (5).
A research or reading course in a special field.
Any quarter. Any member of the graduate faculty.
342. READING COURSE IN LATIN AMERICAN GOVERNMENT (5).
Any quarter. Materials fee, \$1.00. Messrs. Gil, Pierson.
343. READING COURSE IN POLITICAL THEORY (5).
Any quarter. Materials fee, \$1.00. Mr. Pierson.
355. RESEARCH IN PUBLIC RECORDS (5).
Open to advanced graduate students in any of the social sciences.
Spring quarter. Messrs. Jenkins and Pullen.

361. PROBLEMS IN RECENT AND CONTEMPORARY POLITICAL THEORY (5).

Any quarter. Materials fee, \$1.00. Messrs. Pierson, Coker.

375. THESIS COURSE (5).

Any quarter. Members of the graduate faculty.

PORTUGUESE

(See Romance Languages)

DEPARTMENT OF PSYCHOLOGY

Professors: DOROTHY C. ADKINS, J. F. DASHIELL, H. W. CRANE, ENGLISH
BAGBY

Research Professor and Director of the Psychometric Laboratory: *L.

L. THURSTONE

Associate Professors: W. J. DANIEL, I. S. WOLF, H. G. MCCURDY, J. G.
DAWSON

Assistant Professors: E. R. LONG, DOROTHY TERRY, LLOYD BORSTEL-
MANN

Part-time Instructors: HAROLD VAN COTT, CARL COCHRANE, LEE PAUL,
WILLIS FOSTER, WALLACE LAMBERT, BERNARD LEVIN

Teaching Fellow: HARRY LEONHARDT

Graduate Assistant: J. M. THOMAS

Undergraduate students intending to major in psychology are advised to include courses in biology, physics, mathematics, sociology, and anthropology in their studies. Programs for majors with varying directions of interest should include the following. For a *liberal education*: Psychology 122 or 126 or 133, 140 or 144 as well as courses in economics, history, sociology, anthropology, and philosophy. Students who anticipate graduate training as preparation for *teaching and research* should include Psychology 122, 126, 130, 140 or 144, 146 and courses in biology, physics, and mathematics as well as in the social sciences. For a professional career in *personnel*: Psychology 130, 132, 135, 136, 148, 181 and courses in mathematics, economics, and business administration. Students who plan to enter the profession of *clinical psychology* should include Psychology 122, 126, 130, 140 or 144, 141, 145, 146, 148 and courses in physiology, educational-vocational guidance, sociology, and anthropology.

* Beginning March, 1952.

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 advisor, 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.

Personnel and material facilities for graduate level professional training in clinical psychology are available both on and off the campus. The department participates in the clinical training programs sponsored by the Veterans Administration and the United States Health Service.

Courses for Undergraduates

24, 25. GENERAL PSYCHOLOGY (6 each).

Psychology is presented by lectures, demonstrations, and laboratory work, as a biological science. Practical applications are made secondary to the understanding of basic concepts and phenomena.

Five lecture and demonstration hours and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00 a quarter. Lecturers: Messrs. Dashiell, Daniel, McCurdy, Wolf, Long. Laboratory: Messrs. Van Cott, Leonhardt, Cochrane, Foster, Lambert.

NOTE: Although these courses may be elected separately, it is strongly urged that Psychology 24 be taken before Psychology 25. Neither may be elected as a student's first course in natural science. No student may register for the laboratory without the lectures except majors in psychology who have passed a qualifying examination.

40. THE PSYCHOLOGY OF PERSONALITY (5). No prerequisite. May not be counted toward a major.

An elementary presentation of the part played by intelligence, emotionality, and modes of adjustment in personal problems. Some mention of types and traits of people.

Mr. Bagby.

Courses for Graduates and Advanced Undergraduates

NOTE: Psychology 24 and 25 are prerequisite to all courses numbered above 100.

104. ADVANCED GENERAL PSYCHOLOGY (5).

A survey of recent major experiments, to serve as an intensive review, especially for first-year graduate students. Emphasis is upon methodology.

Five lecture hours, or equivalent, a week. Messrs. Daniel, Long, Dashiell, Wolf.

122. HUMAN LEARNING (5).

The many technical and theoretical problems involved in memorizing, conditioning, and problem-solving.

Messrs. Daniel, Long, Dashiell.

126. CHILD DEVELOPMENT (5).

Survey of development of the normal child, with particular attention to social relations. Biological and cultural factors are considered.

Messrs. McCurdy, Borstelmann, Wolf.

130. ELEMENTARY PSYCHOLOGICAL STATISTICS (5).

Distributions and correlations, as in the conventional courses in the subject. Psychological types of problems used.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$2.00. Miss Adkins, Mr. Paul.

132. TEST CONSTRUCTION (5). Prerequisites, Psychology 130, 148.

Training in the 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.

Three lecture and four laboratory hours a week. Laboratory fee, \$2.00. Miss Adkins, Mr. Paul.

133. INTRODUCTION TO SOCIAL PSYCHOLOGY (5).

Social groupings; dynamics of person-to-person relations.

Mr. McCurdy.

135. PERSONNEL PSYCHOLOGY (5).

Methods of analyzing jobs and of selecting, training, motivating, and evaluating employees.

Four lecture and two laboratory hours a week. Laboratory fee, \$2.00. Miss Adkins, Mr. Shepard.

136. INTERVIEWING TECHNIQUES (5).

Emphasis is placed upon the interview and a technical analysis of what procedures do and do not fit particular needs.

Miss Terry.

140. PERSONALITY (5).

Development and modern application of the concept of personality as a more or less self-determining system of beliefs, values, and behavior tendencies.

Mr. McCurdy.

141. INTRODUCTION TO THE PSYCHOLOGICAL CLINIC (5). Prerequisites, Psychology 146; and any one of 140, 144, 145, or 148.

A survey of the function of the clinic, types of cases seen, various techniques utilized to understand (diagnose) and to treat maladjusted persons; functions of the various personnel.

Mr. Wolf.

144. MENTAL HYGIENE (5).

A genetic approach to problems of adjustment in relation to causative factors found in infancy, preschool, school, and adult periods. Case material is used with direct application to specific problems.

Messrs. Crane, Wolf.

145. THE DEVIANT CHILD (5).

Causes, physical basis, and characteristics of deviant children; their part in education, delinquency, and occupations.

Mr. Crane, Miss Terry, Mr. Wolf.

146. PSYCHONEUROSES AND PSYCHOSES (5).

Sensory, emotional, memory, etc., abnormalities; their neural bases; their groupings into the syndromes of the major and minor mental disorders.

Messrs. Crane, Wolf.

148. TESTS AND MEASUREMENTS (5).

Survey of principal types of psychological measuring instruments.

Four lecture and two laboratory hours a week. Laboratory fee, \$3.00. Mr. Crane.

151, 152, 153. ORIGINAL PROBLEMS (5 each).

One lecture and eight laboratory hours a week, fall, winter, or spring quarter. Laboratory fee, \$3.00 a quarter. Staff.

181. LABORATORY ANALYSIS IN PERSONNEL WORK (5). Advised prerequisite, Psychology 135 or Business Administration 155.

A laboratory course in personnel techniques, as applied practically to job analysis, constructing application blanks, rating scales, etc.

Ten laboratory hours a week. Laboratory fee, \$3.00. Miss Adkins, Mr. Paul.

Courses for Graduates

201, 202. EXPERIMENTAL METHODS AND PROCEDURES (5 each). Prerequisite, Psychology 130.

Laboratory working over of the principal problems of classic experimentation: psychophysics, sensory qualities, perception, reaction time, feeling, work and fatigue, conditioning, etc. Intensive study of principles of experimental design.

One lecture and eight laboratory hours a week. Laboratory fee, \$3.00. Messrs. Daniel, Long.

205. NEUROPHYSIOLOGICAL PSYCHOLOGY (5).

The neural bases of behavior, with emphasis upon structural character of cord, brain, and sense organs. Laboratory work with slides and specimens.

Three lecture and four laboratory hours a week. Laboratory fee, \$3.00. Mr. Crane.

206. PHYSIOLOGICAL BASIS OF BEHAVIOR (5).

Functioning of various organs and organ-systems (motor, emotional, endocrine, and neural) as determinants of over-all behavior.

Messrs. Long, Dashiell.

211. HISTORICAL SURVEY OF PSYCHOLOGY (5).

Most emphasis is upon developments of the eighteenth and nineteenth centuries in German experimental, French clinical, British biological, and Russian objective movements.

Messrs. Dashiell, McCurdy.

212. CONTEMPORARY PSYCHOLOGICAL TRENDS (5).

Readings in the original writings of structuralism, behaviorism, gestalt, psychoanalysis, and other recent movements.

Messrs. Dashiell, McCurdy.

225. ANIMAL BEHAVIOR (5).

Survey of experimental work in motivation and development, sensory capacities, learning, and other basic psychological concepts. Laboratory work to familiarize the student with simple research procedures.

Four lecture and two laboratory hours a week. Laboratory fee, \$2.00. Mr. Daniel.

226. METHODS IN CHILD DEVELOPMENT (5).

A survey of research contributions to the field of development, as regards both aspects (physical, emotional, etc.) and age periods (neonate, preschool, adolescent, etc.). Methodology in research to be emphasized. Experiments and controlled observations.

Four lecture and two laboratory hours a week. Laboratory fee, \$2.00. Mr. Dashiell.

230. ADVANCED PSYCHOLOGICAL STATISTICS (5). Prerequisite, Psychology 130.

Extends the concept of correlation to include multivariate analysis, including partial and multiple correlation, reliability, factor analysis; also curve fitting, sampling, etc.

Three lecture and four laboratory hours a week. Laboratory fee, \$2.00. Miss Adkins.

232. TEST THEORY AND ANALYSIS (5). Prerequisite, Psychology 130; 132 and 230 desirable.

Principles of mental measurement; theoretical bases of analyzing tests; selection and weighting of composite tests; scaling theory.

Three lecture and four laboratory hours a week. Laboratory fee, \$2.00. Miss Adkins.

233. METHODS OF SOCIAL PSYCHOLOGY (5).

An analysis of methods of investigation in social psychology with their application to the social sciences. Major attention will be focused upon survey methodology with particular emphasis upon the techniques, contributions, and limitations of public opinion polling.

234. MATHEMATICAL PSYCHOLOGY (5). 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 as demand warrants. Miss Adkins.

240. PSYCHODYNAMICS OF BEHAVIOR (5). Prerequisites, Psychology 140, 201 or 202.

Laboratory-lecture study of selected topics in the general area of emotion and motivation.

Three lecture and four laboratory hours a week. Mr. McCurdy.

246. ADVANCED ABNORMAL PSYCHOLOGY (5). Prerequisites, 140, 146 or 212.

Consideration of major current personality theories with special reference to their interpretation of the principal abnormal behavior syndromes.

Mr. Wolf.

247. METHODS OF MENTAL EXAMINATION (5). -

Methods of securing information pertinent to adequate evaluation of the problems leading to case referral, procedures to be utilized in case study, and interpretation of test data.

Four lecture and two laboratory hours a week. Laboratory fee, \$3.00. Mr. Crane.

249. CLINICAL PRACTICES, INDIVIDUAL TESTS (CHILDREN) (5). Prerequisites, Psychology 148 and permission of the instructor.

Emphasis is upon the acquisition of skill in the administration, scoring, and interpretation of intelligence tests most frequently used in the examination of children but with some reference to the testing of adults.

Ten laboratory hours a week. Laboratory fee, \$3.00. Miss Terry.

250. CLINICAL PRACTICES, INDIVIDUAL TESTS (ADULTS) (5). Prerequisites, Psychology 146 and 148 and permission of the instructor.

Emphasis is upon the acquisition of skill in the administration, scoring, and interpretation of intelligence tests most frequently used in the examination of adults but with some reference to the testing of children.

Ten laboratory hours a week. Laboratory fee, \$3.00. Miss Terry.

251, 252, 253. RESEARCH IN PSYCHOLOGY (5 each). Prerequisite, permission of the instructor under whom research is to be conducted.

Ten laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00 a quarter. Staff.

255. THEORY OF PROJECTIVE TECHNIQUES (5). Prerequisites, Psychology 140, 141, 249, 250.

As clearly distinguished from other psychometric methods, projective methods of examination as now widely employed, their psychological assumptions, validity, and reliability.

Three lecture and four laboratory hours a week. Mr. Borstelmann.

256-257. CLINICAL PRACTICES IN PROJECTIVE TECHNIQUES (5 each). Prerequisites, Psychology 255 and permission of the instructor.

256: To develop competence in the scoring and interpretation of projective tests administered to normal subjects. 257: To obtain experience in examining clinical cases.

Ten hours a week, winter and spring quarters. Messrs. Dawson, Borstelmann.

258. METHODS OF PSYCHOTHERAPY (5). Prerequisite, Psychology 255. An intensive survey of the theories and techniques of the most frequently employed methods of psychotherapy.

Mr. Wolf.

259-261. CLINICAL PRACTICES IN PSYCHOTHERAPY (5 each). Prerequisites, Psychology 258 and permission of the instructor.

Supervised training in psychotherapeutic procedures with clinical subjects, further study of the literature, and participation in clinical staff conferences.

Ten hours a week. Messrs. Dawson, Crane.

271. BEHAVIOR THEORIES (5).

Contemporary theories of behavior and learning taken up critically and comparatively. Student to design problems within each.

Mr. Daniel.

325. SEMINAR IN THEORETICAL-EXPERIMENTAL PSYCHOLOGY (5).

The topic will vary with the interests of students and staff members.

Fall or winter or spring quarter, to be specially announced. Staff.

326. SEMINAR IN CLINICAL PSYCHOLOGY (3).

Systematic surveys of research in (a) personality dynamics; (b) techniques currently employed with specific traits; (c) techniques employed in personality analysis; and (d) techniques with maladjusted persons as shock, drug, hypnotic, etc.

Each quarter. Staff.

327. SEMINAR IN ABNORMAL PSYCHOLOGY (3).

Systematic reviews of theoretical and experimental studies in psychopathology, animal neuroses, and related topics.

Offered as needed. Staff.

341, 342. ADVANCED RESEARCH (5 each).

Five laboratory hours a week, any quarter. Laboratory fee, \$3.00 for each course. Staff.

NOTE: Some additions to the teaching staff of the Department of Psychology will be made in conjunction with research projects of the new Psychometric Laboratory, and additional courses will be given in 1952-1953 in such fields as factor analysis, psychophysics, attitude measurement, and other aspects of psychometrics. These will be announced later. The student is referred also to courses in educational psychology, statistics, neurology, physiology, sociology, and anthropology listed in other departments of the University.

SCHOOL OF PUBLIC HEALTH

Professors: E. G. MCGAVRAN, H. G. BAITY, S. S. CHIPMAN, RUTH W. HAY, R. W. HOWELL, LUCY S. MORGAN, A. H. BRYAN, J. E. LARSH, JR., J. J. WRIGHT

Research Professors: H. J. MAGNUSON, W. P. RICHARDSON

Associate Professors: MARGARET BLEE, E. T. CHANLETT, G. O. DOAK, B. G. GREENBERG, G. L. KELSO, ROSEMARY M. KENT, C. FRANCES MACKINNON, JEAN I. REBENTISCH, C. G. SHEPS, HENRY TAUBER, EUNICE N. TYLER

Visiting Associate Professors: DERWIN COOPER, J. W. R. NORTON

Assistant Professors: MARGARET B. DOLAN, L. D. FREEDMAN, M. L. GRANSTROM, J. R. HENDRICKS, CHARLOTTE P. MCLEOD, ELTA M. MAST, J. D. THAYER

Visiting Assistant Professors: O. D. GARVIN, R. J. MURPHY

Instructors: HANS JAFFE, ALPHA K. KENNY, E. E. TAYLOR, W. E. VANNIER

Part-time Instructors: C. O. BAUGHN, C. H. CAMPBELL

Visiting Instructors: BLANCHE L. VINCENT, EDITH P. BROCKER

*Teaching Fellow: NOBIE W. JONES

Graduate Assistants: H. W. COX, J. G. HALL, R. G. HOFFMAN, C. W. KIM, C. R. MUNSEY, HARRY SMITH, JR.

Research Associate: MARGARET G. HARRIS

Research Assistants: W. F. ELKIN, JEANNE L. JENKINS, MARGARET S. MILLER, MARY T. MURRILL, GERTRUDE N. ROSE, CELIA R. WEBB

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 schools of the Division of Health Affairs are exempted from the payment of the laboratory fees listed in the following course descriptions.

* State Board of Health Teaching Fellow.

For further information see the special catalogue of the School of Public Health.

Courses for Undergraduates

- P.H. 10ab. PRINCIPLES OF PUBLIC HEALTH (5 each quarter).
Three lecture and four laboratory hours a week, fall and winter quarters. Mrs. Kent.
- P.H. 11. ORGANIZATION AND ADMINISTRATION OF SCHOOL HEALTH PROGRAMS (3).
Two lecture and two observation hours a week, fall quarter. Mrs. Kent.
- P.H. 15. PRINCIPLES OF COMMUNITY ORGANIZATION FOR HEALTH (3).
Two lecture and two laboratory hours a week, winter quarter. Miss Morgan.
- P.H. 16. METHODS AND MATERIALS IN PUBLIC HEALTH EDUCATION (Education 93) (5).
Two lecture and two laboratory hours a week, winter quarter. Miss Mast.
- P.H. 17. PRACTICE TEACHING IN COMMUNITY HEALTH EDUCATION (Education 94) (15).
Spring quarter. Fee, \$20.00. Mrs. Kent, Miss Mast.

Courses for Graduates and Advanced Undergraduates

- P.H. 102a. PUBLIC HEALTH PRACTICE (PRINCIPLES) (4).
Winter quarter. Drs. McGavran, Wright, Miss Hay.
- P.H. 102b. PUBLIC HEALTH PRACTICE (PRACTICE) (4).
Winter quarter. Drs. McGavran, Wright, Miss Hay, and staff.
- P.H. 106. VENEREAL DISEASE CONTROL PROBLEMS (2).
An introductory course designed for public health personnel without previous medical or nursing background.
Fall quarter. Dr. Magnuson.
- P.H. 114. MENTAL HEALTH (2).
Winter quarter. Dr. Howell.
- P.H. 115. INTRODUCTION TO PUBLIC HEALTH EDUCATION (2).
Three lecture and demonstration hours a week, fall or winter quarter. Miss Morgan, staff.
- P.H. 118. HEALTH AND SICKNESS IN MODERN SOCIETY (3).
Fall and summer quarters. Dr. Sheps.
- P.H. 121. PUBLIC HEALTH STATISTICS (3½).
Two lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Greenberg.
- P.H. 131. PARASITISM AND HUMAN DISEASE (3½). Prerequisites, Zoology 41, 42 or equivalent.
Two lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$4.00. Messrs. Larsh, Hendricks, assistants.

P.H. 135. HUMAN PARASITOLOGY (3½). Prerequisite, P.H. 131 or equivalent.

Two lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Messrs. Larsh, Hendricks, assistants.

P.H. 140. PUBLIC HEALTH PROBLEMS (2½-5). Prerequisite, consult the department concerned; hours to be arranged.

Five to ten hours a week, each quarter. Staff of the School of Public Health.

P.H. 141. PUBLIC HEALTH NUTRITION (3).

Two lecture and two laboratory hours a week, fall quarter. Miss MacKinnon.

P.H. 148. ELEMENTARY BIOCHEMISTRY AND NUTRITION (Biochemistry 108) (5). Prerequisites, Chemistry 61, 62, or equivalent.

An introduction to the science of nutrition. Offered jointly by the departments of Biological Chemistry and Nutrition and of Public Health Nutrition. For students of the biological sciences.

Spring quarter. Mr. Andrews and staff; Dr. Bryan and staff.

P.H. 153. PROBLEMS IN MATERNAL AND CHILD HEALTH (2-5). Prerequisites depend upon the problem to be studied and will be arranged with the faculty in each individual case.

Winter and spring quarters. Dr. Chipman, Miss Rebentisch.

P.H. 158. GROWTH AND DEVELOPMENT (3).

An introductory course aimed at developing an understanding of the process through which the human organism grows to maturity and of the factors which influence this process.

Winter quarter. Miss Rebentisch.

P.H. 161. THE PRINCIPLES OF SANITATION (4).

Three lecture and two laboratory hours a week, fall quarter. Mr. Chanlett.

P.H. 162. SANITARY CHEMISTRY AND BIOLOGY I (3). Prerequisite, general chemistry.

Fall quarter. Mr. Granstrom.

P.H. 163. SANITARY CHEMISTRY AND BIOLOGY II (5). Prerequisite, P.H. 162.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$5.00. Mr. Granstrom.

P.H. 164. SANITARY CHEMISTRY AND BIOLOGY III (5). Prerequisites, P.H. 162, 163.

Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. Granstrom.

P.H. 165. ENVIRONMENTAL SANITATION METHODS (3½). Prerequisites or corequisites, P.H. 102a, 131, 161.

Two lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.50. Mr. Chanlett.

P.H. 181. PUBLIC HEALTH PROBLEMS IN INDUSTRY (3). Corequisite or prerequisite, P.H. 102a.

Winter quarter. Mr. Chanlett.

P.H. 190. PRINCIPLES AND PRACTICES OF PUBLIC HEALTH NURSING (4).

Fall quarter. Miss Hay, Mrs. Dolan.

P.H. 191. PUBLIC HEALTH NURSING ORGANIZATION AND ADMINISTRATION (4).

Winter quarter. Miss Hay, Mrs. Dolan.

P.H. 192. GROUP WORK: ITS INTERPRETIVE FACTORS (3).

Winter quarter. Miss Blee.

P.H. 193. APPLIED PUBLIC HEALTH NURSING FIELD PRACTICE (15).
Special programs will be arranged with consideration of the experience and particular needs of the students.

Five and one-half days a week. Misses Hay, Blee, and Mrs. Dolan.

P.H. 194. VENEREAL DISEASE CONTROL (2).

A course for nurses reviewing the medical aspects of the venereal diseases which are of public health importance.

Winter quarter. Dr. Magnuson.

P.H. 195. THE PUBLIC HEALTH NURSE IN A MATERNAL HEALTH PROGRAM (3).

Fall quarter. Miss Blee.

P.H. 196. SPECIAL FIELDS IN PUBLIC HEALTH NURSING (10). Prerequisites, two of the following P.H. Nursing courses: P.H. 190, 191, 192, 195, or with permission of the instructor.

Twenty lecture hours a week, summer quarter. Misses Hay, Blee.

P.H. 197. PHILOSOPHY AND PRINCIPLES OF SUPERVISION IN PUBLIC HEALTH NURSING (3). Prerequisites, public health nursing experience or with permission of the instructor.

Fall quarter. Miss Hay, staff.

Courses for Graduates

P.H. 201. EPIDEMIOLOGY (5).

Spring quarter. Drs. McGavran, Wright, Sheps.

P.H. 202. TUBERCULOSIS CONTROL METHODS (3). Prerequisite, medical degree.

Two lecture hours and two clinic demonstrations a week, winter quarter. Drs. Wright, Cooper.

P.H. 203. STATISTICAL METHODS IN EPIDEMIOLOGY (2½). Prerequisites, P.H. 102ab, 121.

One lecture and three laboratory hours a week, spring quarter. Drs. Wright, McGavran, Mr. Greenberg.

P.H. 204. THE CONTROL OF ACUTE COMMUNICABLE DISEASES (3).

Winter quarter. Dr. McGavran and staff.

P.H. 206. VENEREAL DISEASE CONTROL METHODS (2½). Prerequisite, medical degree.

A general course to acquaint the health officer with clinical, epidemiological, and control problems encountered in the venereal diseases.

Two lecture hours and one clinic demonstration a week, spring quarter. Dr. Magnuson.

P.H. 211. PUBLIC HEALTH ADMINISTRATION (5). Prerequisite, P.H. 102ab.

Three lecture and four or more field-trip hours a week, spring quarter. Drs. Wright, Richardson, Sheps.

P.H. 212. THE PLANNING OF ENVIRONMENTAL SANITATION PROGRAMS (3). Prerequisites, P.H. 102a, 161.

Two lecture and two laboratory hours a week, spring quarter. Mr. Chanlett.

P.H. 213. MEDICAL CARE (2).

Spring quarter. Dr. Sheps.

P.H. 215. COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (3).

Five lecture and demonstration hours a week, fall or winter quarter. Miss Morgan and visiting lecturers.

P.H. 216. FIELD WORK IN PUBLIC HEALTH EDUCATION (15).

This course is open only to students majoring in health education.

Spring quarter. Miss Morgan, Mrs. Tyler, Miss Mast, and health education consultants of training centers.

P.H. 217abc. PROBLEMS IN HEALTH EDUCATION (2½-5).

Five lecture and demonstration hours a week, fall, winter, and summer quarters. Mrs. Tyler and visiting lecturers.

P.H. 218. METHODS IN PUBLIC HEALTH EDUCATION (3).

Fall or winter quarter. Miss Morgan, Mrs. Tyler.

P.H. 219. SCHOOL HEALTH EDUCATION (3).

Four lecture and demonstration hours a week, fall or winter quarter. Miss Mast and visiting lecturers.

P.H. 220. INTRODUCTION TO SPECIAL FIELDS IN PUBLIC HEALTH EDUCATION (10). Prerequisite, P.H. 115 or 215.

Summer quarter. Department of Public Health Education Staff and visiting lecturers.

P.H. 221. THE ROLE OF VITAL STATISTICS IN ADMINISTRATION (3).

Prerequisite, P.H. 121.

Spring quarter. Mr. Greenberg.

P.H. 222. FIELD WORK IN PUBLIC HEALTH STATISTICS (15).

Open only to students majoring in this field.

Summer quarter. Mr. Greenberg and statistical consultants in state health departments.

P.H. 232. PARASITOLOGICAL METHODS (5). Prerequisite, P.H. 135.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$8.00. Mr. Hendricks, assistants.

P.H. 233. MALARIOLOGY (5). Prerequisite, P.H. 131 or Zoology 41, 42, or equivalent.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Messrs. Larsh, Baity, Hendricks, assistants.

P.H. 234. MEDICAL ENTOMOLOGY AND INSECT CONTROL (3½). Prerequisites, Zoology 41, 42, and P.H. 131 and 135 or equivalent.

Two lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Hendricks, assistants.

- P.H. 241. PRINCIPLES OF PUBLIC HEALTH NUTRITION (3).
Winter quarter. Dr. Bryan, Miss MacKinnon.
- P.H. 242. ADVANCES IN HUMAN NUTRITION (3). Prerequisite, a major in nutrition or equivalent courses in biochemistry and physiology.
Fall quarter. Dr. Bryan.
- P.H. 243. PROGRAMS IN PUBLIC HEALTH NUTRITION (5). Prerequisite, P.H. 242.
A course for students majoring in the field.
Winter quarter. Miss MacKinnon.
- P.H. 244. FIELD WORK IN PUBLIC HEALTH NUTRITION (15). Prerequisite, P.H. 243.
Open only to students majoring in the field.
Spring quarter. Miss MacKinnon and nutrition consultants in state health departments.
- P.H. 245. SEMINAR IN PUBLIC HEALTH NUTRITION (3). Prerequisite, P.H. 242, 243, or equivalent.
Open only to students majoring in the field.
Summer quarter. Miss MacKinnon.
- P.H. 246. THE NUTRITION SURVEY (3). Prerequisite, P.H. 242 or equivalent.
Two lecture and two seminar hours a week, summer quarter. Dr. Bryan, Miss MacKinnon.
- P.H. 249. WORKSHOP IN PUBLIC HEALTH NUTRITION (3-9).
Open by special permission to a limited number of qualified graduate students.
Any quarter. Dr. Bryan, Miss MacKinnon.
- P.H. 250a. MATERNAL AND CHILD HEALTH (5).
A seminar course dealing with the principles and patterns of development and the problems of premarriage and the early family. For students majoring in maternal and child health.
Fall quarter. Dr. Chipman, Miss Rebentisch.
- P.H. 250b. MATERNAL AND CHILD HEALTH (5). Prerequisite, 250a.
This portion of the course deals with the needs and problems encountered in infant, preschool and school age children, adolescents and the handicapped children.
Winter quarter. Dr. Chipman, Miss Rebentisch.
- P.H. 251. PROGRAMS AND SERVICES IN MATERNAL AND CHILD HEALTH (4).
Seminar course designed for students majoring in maternal and child health and directed at the needs and problems discussed in P.H. 250a and 250b.
Spring quarter. Dr. Chipman, Miss Rebentisch.
- P.H. 252abc. CLINICAL TRAINING IN MATERNAL AND CHILD HEALTH (2 each).
Planned on the basis of individual student interest and need. Offered concurrently with P.H. 250 and 251.
Fall, winter, and spring quarters. Dr. Chipman, Misses Rebentisch, MacKinnon.

P.H. 254. SOCIAL AND PSYCHOLOGICAL PROBLEMS OF CHILDREN (3).

This course is given in conjunction with members of the departments of Sociology and Psychology.

Spring quarter. Dr. Chipman, Miss Rebentisch, and guest lecturers.

P.H. 255. FIELD TRAINING OR EXPERIENCE IN MATERNAL AND CHILD HEALTH (3-8).

For majors in the field of maternal and child health.

Any quarter. Dr. Chipman.

P.H. 258. MATERNAL AND CHILD HEALTH (5).

An introductory course for students not majoring in maternal and child health.

Fall quarter. Dr. Chipman, Miss Rebentisch.

P.H. 261. MILK AND FOOD CONTROL (3). Prerequisites, P.H. 102a, 131, and 161.

Two lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.50. Mr. Chanlett.

P.H. 262. LIMNOLOGY AND STREAM POLLUTION (5). Prerequisites, P.H. 162 and 163.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Baity.

P.H. 271. HYDROLOGY (3). Prerequisite, Hydraulics (Mathematics 124).

Fall quarter. Mr. Granstrom.

P.H. 272. WATER SUPPLY AND SEWERAGE (5). Prerequisites, Hydraulics (Mathematics 124), Strength of Materials (Mathematics 123).

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$4.00. Mr. Baity.

P.H. 273. WATER PURIFICATION (5). Prerequisites, P.H. 162 and 272; corequisite, P.H. 163.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$4.00. Mr. Baity.

P.H. 274. SEWAGE TREATMENT AND WASTE DISPOSAL (5). Prerequisite, P.H. 273; corequisite, P.H. 164.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Baity.

P.H. 275. INDUSTRIAL WASTES (3). Prerequisite, P.H. 163; corequisite, P.H. 164.

Spring quarter. Mr. Granstrom.

P.H. 276. INDUSTRIAL WATER SUPPLIES (3). Corequisites, P.H. 163, 273.

Winter quarter. Mr. Granstrom.

P.H. 281. INDUSTRIAL HYGIENE AND SANITATION (5). Prerequisites, P.H. 162 and 181.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Chanlett.

P.H. 297. ADVANCED SUPERVISION IN PUBLIC HEALTH NURSING (5). Prerequisite, P.H. 197 or equivalent.

For majors in public health nursing supervision.

Winter quarter. Miss Hay, staff.

P.H. 298. SEMINAR IN PUBLIC HEALTH NURSING SUPERVISION (8-10).

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.

Two two and one-half hour seminars and laboratory hours to be arranged each week, spring quarter. Miss Hay, staff.

Research Courses

The courses described below, with the exception of P.H. 317abc and Ed. 376ab, may be continued for several quarters and for more than one academic year. Credit of two and one-half quarter hours or more may be earned each quarter in any course.

P.H. 301. RESEARCH IN EPIDEMIOLOGY (2½ or more).

Five or more laboratory hours a week. Drs. McGavran, Wright.

P.H. 306. RESEARCH IN VENEREAL DISEASES (2½ 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.

Five or more laboratory hours a week, any quarter. Dr. Magnuson.

P.H. 311. RESEARCH IN PUBLIC HEALTH ADMINISTRATION (2½ or more).

Five or more laboratory hours a week. Drs. Wright, Richardson, Sheps.

P.H. 315. RESEARCH IN HEALTH EDUCATION (2½ or more).

Open by special arrangement to students doing advanced graduate work in public health education.

Five or more laboratory hours a week. Miss Morgan, Mrs. Tyler.

P.H. 317abc. SEMINAR IN HEALTH EDUCATION (3).

Open by special arrangement to students doing advanced graduate work in public health education.

Any quarter. Miss Morgan, Mrs. Tyler.

P.H. 318. SEMINAR IN PUBLIC HEALTH ADMINISTRATION (2).

Spring quarter and by special arrangement. Dr. Wright and staff of the School of Public Health.

P.H. 321. RESEARCH IN STATISTICS (2½ 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.

Five or more laboratory hours a week. Mr. Greenberg.

P.H. 332. RESEARCH IN PARASITOLOGY (2½ or more).

Five or more laboratory hours a week. Laboratory fee, \$15.00. Mr. Larsh.

P.H. 341. RESEARCH IN PUBLIC HEALTH NUTRITION (2½ or more).

Ten or more laboratory hours a week. Dr. Bryan.

P.H. 361. RESEARCH IN SANITARY SCIENCE (2½ or more). Prerequisites or corequisites, P.H. 131, 161, 162, 163, 164, 201.

Five or more laboratory hours a week. Laboratory fee, \$10.00. Messrs. Baity, Chanlett, Granstrom.

P.H. 371. RESEARCH IN SANITARY ENGINEERING (2½ or more). Prerequisites or corequisites, P.H. 162, 163, 164, 272, 273, 274.

Five or more laboratory hours a week. Laboratory fee, \$10.00. Messrs. Baity, Chanlett, Granstrom.

P.H. 381. RESEARCH IN INDUSTRIAL SANITATION (2½ or more). Prerequisite or corequisite, P.H. 281.

Five or more laboratory hours a week. Laboratory fee, \$10.00. Mr. Chanlett.

P.H. 376ab. SEMINAR IN EDUCATION (3-5). Prerequisites, two courses in graduate education.

Any quarter. Members of the graduate faculty.

DEPARTMENT OF RADIO

Professor: EARL WYNN

Associate Professor: R. F. SCHENKKAN

Assistant Professors: J. L. MORRISON, *EDWARD FREED, RHODA HUNTER
WYNN

Instructors: JOHN YOUNG, J. M. EHLE, JR., J. S. CLAYTON

Interests of students pursuing a radio major fall under the following categories: (1) writing for radio; (2) speaking or acting for radio; (3) the planning and production of radio programs; (4) adapting and performing music for radio; (5) the utilization of radio in the classroom; (6) the business side of radio†; and (7) technical aspects of radio. Because of these diversified interests each student majoring in radio will be required to plan his curriculum carefully with the Department of Radio.

The course work, laboratories, and extracurricular activities of the Department of Radio are planned with three objectives in mind: to give the student a broad educational background; to provide him with a survey of radio broadcasting; and to offer him an opportunity to explore those phases of radio in which he is most interested.

Certain aptitudes on the part of the student are necessary to his successful pursuit of the radio major as an undergraduate. An attempt to discover these aptitudes will be made by means of a qualifying examination, observation of his extracurricular activities in radio during his freshman and sophomore years, and most careful observation of his classroom and laboratory work during his first quarter as a major in the Department of Radio.

Except for Radio 70 (Introduction to Radio) all courses are restricted to majors in radio; double-listed courses are available to

* Resigned March 17, 1952.

† The student interested in the business side of radio will major in the School of Business Administration and take his non-divisional electives in the Department of Radio. See the special bulletin of the School of Business Administration.

majors in those departments in which the courses are double-listed.

The student should apply for entrance to the Department of Radio before the end of his sophomore year.

Requirements for an undergraduate with a major in radio consist of a minimum of eighteen courses, seven of which must be in radio.

Required: Introduction to Radio (70) and Laboratory (70A); Speaking and Acting for the Microphone (71); Continuity Writing for Radio (72); Radio Production (75).

Three courses from the following, at least one of which must be 80, 81, or 83: News Writing for Radio (73); Dramatic Script Writing for Radio (74); Advanced Dramatic Script Writing for Radio (80); Dramatic Production (81); Program Planning for Radio (83).

Additional courses in allied fields which the student may elect upon the advice and consent of the chairman of the department: Elementary Motion Picture Production (85); Motion Picture Laboratory (86); Elementary Television Writing and Production (90).

Upon the advice of the chairman of the department, the student shall elect *four to seven courses in allied departments of the Division of the Humanities; and four to seven courses from other divisions.*

Courses for Undergraduates

70. INTRODUCTION TO RADIO (Dramatic Art 70) (5).

A survey course covering the organization and operation of stations and networks, participating organizations, the audience, the program, the servicing of programs, and broadcasting to schools. Prerequisite to all courses in radio broadcasting leading to a major in radio.

Fall and winter quarters. Mrs. Wynn and guest lecturers.

70A. INTRODUCTION TO RADIO (Dramatic Art 70A). Laboratory (1).

Small group instruction in the use of the basic radio equipment. Required of and limited to all radio majors and dramatic art majors planning to enroll in Radio 71 and/or Radio 75.

Fall and winter quarters. Fee for materials, \$2.00. Mr. Young.

71. SPEAKING AND ACTING FOR THE MICROPHONE (Dramatic Art 71) (5). Prerequisites, Radio 70, 70A, and English 40 (taught by Mr. Wynn) or permission of the instructor.

An introduction to speaking and acting for an aural medium: lectures, discussion, and laboratories.

Three lecture and four laboratory hours a week, winter and spring quarters. Fee for materials, \$2.00. Mr. Wynn.

72. CONTINUITY WRITING (5).

A study of the principles and methods of writing for an aural medium; application will be made in the writing of all kinds of continuity except news and dramatic forms.

Fall and winter quarters. Fee for materials, \$2.00. Mr. Schenkan.

73. NEWS WRITING FOR RADIO (Journalism 73) (5).

A study of the principles of newscasting and the methods involved in editing and writing the news program.

Winter and spring quarters. Fee for materials, \$2.00. Mr. Morrison.

74. DRAMATIC SCRIPT WRITING FOR RADIO (Dramatic Art 74) (5).

A study of some basic forms of radio unit drama, including dramatic-narrative and documentary drama, both original and in adaptation.

Winter and spring quarters. Mr. Schenckan.

75. RADIO PRODUCTION (Dramatic Art 75) (5). Prerequisites, Radio 70, 70A, and 71 or 72.

A study of the principles and methods of direction and production of talk, musical, and variety programs with emphasis on those basic principles which underlie all radio directing.

Four lecture and two laboratory hours a week, fall and spring quarters. Fee for materials, \$2.00. Mr. Young.

75S. RADIO PRODUCTION WORKSHOP (5). Open to Air Science and Tactics students only. (See AFROTC, p. 222.)

A study of the principles and methods of writing and directing talk and music programs with emphasis upon radio as a public relations medium.

Four lecture and two laboratory hours a week, winter quarter. Fee for materials, \$2.00. Mr. Young and radio staff.

80. ADVANCED DRAMATIC SCRIPT WRITING FOR RADIO (5). Prerequisite, Radio 74.

A study of more complex forms of radio dramatic writing. Open to seniors only.

Fall quarter. Mr. Schenckan.

81. DRAMATIC PRODUCTION (5). Prerequisite, Radio 75.

A study of complex program types with emphasis on advanced methods of dramatic production. Permission of the instructor must be secured.

Three lecture and four laboratory hours a week, winter quarter. Fee for materials, \$2.00. Mr. Clayton.

83. PROGRAM PLANNING FOR RADIO (5).

An intensive study of programming, traffic, and station problems. Audiences and markets will be analyzed, and the building and promotion of individual programs will be considered. Open to seniors only.

Spring quarter. Mrs. Wynn.

85. ELEMENTARY MOTION PICTURE PRODUCTION (Dramatic Art 85) (5).

Registration is limited to fifteen and restricted to radio and dramatic art majors. Before registering for this course, students must secure the permission of the instructor.

An elementary course dealing with the basic principles of writing, producing, and directing the sound screen play.

(Not offered in 1951-1952.) *Three lecture and four laboratory hours a week, fall quarter. Fee for materials, \$5.00. Mr. Freed.*

86. MOTION PICTURE LABORATORY (Dramatic Art 86) (3). Prerequisite, Radio 85.

Registration is limited to fifteen and restricted to radio and dramatic art majors who have completed Radio 85 with distinction. Students must secure the permission of the instructor before registering.

This course is a laboratory continuation of Radio 85, designed for those students who have shown outstanding promise. It will require actual participation on the part of the student in writing and directing films produced by the Communication Center.

(Not offered in 1951-1952.) *Six laboratory hours a week, winter quarter. Fee for materials, \$10.00.* Mr. Freed.

90. ELEMENTARY TELEVISION WRITING AND PRODUCTION (5).

Registration is limited to ten and restricted to senior radio and dramatic art majors. Students must secure the permission of Professor Wynn before registering.

This course will survey the television industry and will emphasize specifically current and experimental methods of television writing and production.

(Not offered in 1951-1952.) *Three lecture and four laboratory hours a week, spring quarter. Fee for materials, \$10.00.* Department of Radio staff.

DEPARTMENT OF RELIGION

Professors: A. S. NASH, B. H. BOYD, J. P. HARLAND, A. C. HOWELL,
P. H. EPPS

Assistant Professors: CONSTANTINE CAVARNOS, W. H. POTEAT

Lecturer: M. A. KIDDER

PROVISIONAL STATEMENT

The first function of this department is to help students to understand the origin, the development, and the significance of the Judaic-Christian tradition. In other words, the department is concerned with:

- (1) Biblical literature, history, and theology;
- (2) the history of religion in Western civilization;
- (3) the implications of Christianity for the thought and practice of today.

It is from such an angle that Christianity (or any other religion) can be regarded as a separate subject for study, and that is why the University has an independent department devoted to the study of religion.* However, just as Christianity is relevant to the whole of life, so Christian thought has a bearing on the whole of knowledge. Thus the second function of the department is to relate the study of religion to other fields of learning and so help to integrate, in terms of Christian insights, the knowledge that a student acquires in the various subjects of study described in the University curriculum. It is for this reason (among others) that courses in religion are given not only by teachers from within the department but by teachers from other departments.

* The specific study of other religions will soon be represented in the curriculum; the present plan is to invite as visiting professor for one quarter each year a scholar from abroad whose major field of interest lies in one of the non-Christian religions.

Any student planning to take religion as the field of his major in studying for the degree of A.B. is advised to consult with Dr. Nash as early as possible. By early and proper arrangement of his course of study, it is possible for a student who intends to enter the ministry to achieve two advantages. The first is that arising from taking a major in religion at the undergraduate level and the second is that of taking those courses in the humanities, the natural and the social sciences that are recommended by the American Association of Theological Schools as the appropriate foundation for professional training for the ministry in a seminary or a university divinity school. Similarly it is possible for a student in the School of Education to take courses that produce accreditation for high school teaching in religion in addition to another subject, such as history or chemistry. There is no fixed set of courses, therefore, for an undergraduate major in religion. Each student after taking the basic courses, Religion 28 and Religion 30, builds on this foundation a program of study appropriate to his present needs and future expectations. 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, 92, 103 and 195. A student majoring in religion may take the course Marriage (Sociology 62) for credit in religion.

Programs of study leading to the degrees of A.M. and Ph.D. will be proposed in the future. The former degree is normally sought by those students who wish to specialize in the teaching of religion in public schools or to take up student work with the different religious foundations. The latter degree is normally taken by those students who wish to teach in institutions of higher education.

Plans have already been made for courses of study which provide a minor in religion for A.M. students and for Ph.D. students whose major field of study lies elsewhere. 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. Such a course of study can be a valuable first step towards the achievement of a conscious philosophy of higher education that every college or university teacher should possess.

Courses for Undergraduates

28. THE ORIGIN AND SIGNIFICANCE OF THE BIBLE (5).

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.

Any quarter. Messrs. Boyd, Kidder, and Nash.

30. THE RELIGIOUS BACKGROUND OF WESTERN CIVILIZATION (5).

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 quarter. Mr. Nash.

31. CHRISTIAN ETHICS AND MODERN PROBLEMS (5).

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.

Winter quarter. Mr. Kidder.

45. CHRISTIANITY AND THE RELIGIONS OF THE WORLD (5).

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 quarter. Mr. Nash.

80. THE MAKING AND MEANING OF THE OLD TESTAMENT (5). Pre-requisite, Religion 28.

A study of the beginnings of Hebrew religion in the Mosaic period, the rise of classical prophecy, and the emergence of Judaism.

Winter quarter. Mr. Boyd.

81. THE MAKING AND MEANING OF THE NEW TESTAMENT (5). Pre-requisite, Religion 28.

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 quarters. Mr. Boyd.

85. ARCHAEOLOGY AND THE BIBLE (Classics 85) (5).

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 quarter. Mr. Harland.

87. LITERARY ASPECTS OF THE BIBLE (English 87) (5).

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 quarter. Mr. Howell.

92. THE VARIETIES OF RELIGION IN AMERICAN LIFE AND CULTURE (5).

A study of Judaism, Roman Catholicism, and the chief forms of Protestantism; their respective beliefs, forms of worship, polity, and moral and social teachings.

Spring quarter. Mr. Kidder.

96. PHILOSOPHY OF RELIGION (Philosophy 96) (5). This course can be taken for credit in religion only by students majoring in religion.

An analysis will be made of the essential elements of religious thought and practice. Problems of knowledge and faith, the existence and nature of God, and the significance of religion for the individual and society will be considered.

Fall quarter. Mr. Poteat.

97. THE CHRISTIAN INTERPRETATION OF HISTORY (5).

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 Nicolas 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.

At times to be arranged. Mr. Nash.

99. THE INFLUENCE OF THE BIBLE ON WESTERN THOUGHT (5). 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.

At times to be arranged. Mr. Boyd.

Courses for Graduates and Advanced Undergraduates

103. CHRISTIANITY AND EDUCATION (5). Prerequisite, Religion 28 or 30 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.

At times to be arranged. Messrs. Kidder and Nash.

121. THE BIBLICAL PERSPECTIVE (5). 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.

At times to be arranged. Mr. Boyd.

127. AUGUSTINE AND AQUINAS (Philosophy 127) (5). Prerequisite, Philosophy 56 or 57 or 122 or special permission.

A study of the philosophy of Augustine and Aquinas; their theories of God, Nature, Man, and the State; their significance for modern man.

(1951-1952 and alternate years.) *Winter quarter.* Mr. Cavarinos.

158. GREEK NEW TESTAMENT (Classics 158) (5). Prerequisite, Greek 21-22 or equivalent.

One or more of the Gospels will be read, with attention to the grammar, diction, and style of the New Testament writers.

Spring quarter. Mr. Epps.

195. THE RELATIONS BETWEEN SCIENCE AND RELIGION (5). Prerequisite, at least three courses in the natural sciences or psychology or philosophy.

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. The course is intended primarily for students specializing in one of the natural sciences or philosophy or psychology.

At times to be arranged. Mr. Nash.

Course for Graduates

270. SOCIOLOGY OF RELIGION (Sociology 270) (5).

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.

(1951-1952 and alternate years.) *Winter quarter.* Mr. Nash.

DEPARTMENT OF ROMANCE LANGUAGES

Professors: S. A. STOUDEMIRE, *W. M. DEY, S. E. LEAVITT, U. T. HOLMES, N. B. ADAMS, H. R. HUSE, J. C. LYONS, *Secretary*, W. L. WILEY, †H. GIDUZ, R. W. LINKER, A. G. ENGSTROM

Associate Professor: ‡H. H. STAAB

Assistant Professors: §D. H. WALTHER, J. HARDRÉ, J. E. KELLER, F. M. DUFFEY, W. A. MCKNIGHT

Instructors: J. E. CARROLL, W. D. CREECH

Part-time Instructors: H. L. KING, W. A. HOVER, W. W. RITTER, H. T. STURCKEN, W. R. HEILMAN, F. C. MARTIN, J. H. PEAK, H. N. SEAY, J. R. PRINCE, D. D. STANLEY, M. L. KOCHER, E. W. NAJAM, J. D. CHARRON, J. R. BEELER, WESTON FLINT, A. B. GMINDER, S. H. NEWELL

Teaching Fellows: CATHERINE D. CHANCE, J. B. GILSDORF, T. O. SURPRENANT

Research Assistant: DOROTHY M. MULBERRY

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 pages 161-62.

Courses for Undergraduates

1-2. ELEMENTARY FRENCH (10).

Five hours a week, through two quarters. Mr. Giduz and 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.

* Kenan Professor Emeritus.

† Chairman of French 1, 2, 3, 4.

‡ Associate Professor Emeritus.

§ Absent on leave, 1951-1952.

***3-4. INTERMEDIATE FRENCH (10).**

Five hours a week, through two quarters. Messrs. Giduz, Hardré, and staff.

14-15. BEGINNING COURSE FOR ADVANCED STUDENTS (10). Elective.

Five hours a week, fall and winter quarters. Mr. Hardré.

***21-22. ADVANCED FRENCH (10).** Sophomore elective.

Introduction to French literature.

Five hours a week, through two quarters. Messrs. Lyons, Wiley, Linker, Engstrom, Hardré.

25. COMMERCIAL FRENCH (5). Prerequisite, intermediate French.

Spring quarter.

50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (5). Prerequisite, intermediate French.

Winter quarter. Mr. Giduz.

51. FRENCH CONVERSATIONS AND COMPOSITION (5).

Any quarter. Messrs. Lyons, Hardré.

51. FRENCH CIVILIZATION I (CONVERSATION) (5). Prerequisite, French

Any quarter. Messrs. Lyons, Hardré.

52. FRENCH CIVILIZATION II (CONVERSATION) (5). Prerequisite French

French Revolution to the present.

Spring quarter. Mr. Hardré.

71. SURVEY OF FRENCH LITERATURE I (5). Prerequisite, French 21-22.

Open to juniors and seniors.

Fall quarter. Messrs. Lyons, Wiley, Engstrom.

72. SURVEY OF FRENCH LITERATURE II (5).

This course is a continuation of French 71. Open to juniors and seniors.

Winter quarter. Messrs. Lyons, Wiley, Engstrom.

83. MATERIALS AND METHODS IN HIGH SCHOOL FRENCH (Education 83a) (5).

Winter quarter. Mr. Giduz.

84. DIRECTED TEACHING OF HIGH SCHOOL FRENCH (Education 84a) (5).

Any quarter. Laboratory fee, \$10.00. Mr. Giduz.

97. HONORS COURSE (5).

Required of all students reading for honors in French.

Courses for Graduates and Advanced Undergraduates

115. FRENCH LYRIC POETRY (5). Prerequisites, French 71, 72.

Spring quarter. Mr. Huse.

120. FRENCH LITERATURE OF THE TWENTIETH CENTURY (5). Prerequisites, French 71, 72.

Spring quarter. Mr. Hardré.

* Either of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

126. HISTORY OF THE FRENCH LANGUAGE (5). Prerequisites, French 71, 72.
Winter quarter. Mr. Holmes.
131. THE FRENCH DRAMA PRIOR TO 1700 (5). Prerequisites, French 71, 72.
Fall quarter. Mr. Wiley.
132. THE FRENCH DRAMA SINCE 1700 (5). Prerequisites, French 71, 72.
Winter quarter. Mr. Wiley.
145. FRENCH PHONETICS (5). Prerequisites, French 71, 72.
Fall quarter. Mr. Wiley.
171. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY I (5).
Prerequisites, French 71, 72.
Fall quarter. Mr. Lyons.
172. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY II (5).
Prerequisites, French 71, 72.
Winter quarter. Mr. Lyons.
181. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (5). Pre-
requisites, French 71, 72.
Fall quarter. Mr. Huse.
191. FRENCH ROMANTICISM (5). Prerequisites, French 71, 72.
Winter quarter. Mr. Engstrom.
192. FRENCH LITERATURE SINCE 1850 (5). Prerequisites, French 71, 72.
Spring quarter. Mr. Engstrom.
- CELTIC 105. OLD IRISH (5).
Winter quarter. Mr. Holmes.
- CELTIC 106. OLD WELSH (5).
One quarter. Mr. Holmes.

Courses for Graduates

201. MATERIALS AND METHODS OF RESEARCH (2½).
Two and one-half hours a week, winter quarter. Mr. Holmes.
211. LITERARY CRITICISM IN FRANCE: THE CLASSICAL PERIOD (5).
(1951-1952 and alternate years.) *Winter quarter.* Mr. Wiley.
212. LITERARY CRITICISM IN FRANCE: THE MODERN PERIOD (5).
(1952-1953 and alternate years.) *Spring quarter.* Mr. Engstrom.
220. VULGAR LATIN (5).
(1951-1952 and alternate years.) *Spring quarter.* Mr. Holmes.
- 221-222-223. OLD FRENCH (15).
Five hours a week, fall, winter, and spring quarters. Mr. Holmes.
225. PROVENÇAL (5).
(1951-1952 and alternate years.) *Spring quarter.* Mr. Holmes.
231. FRENCH SYNTAX (5).
Spring quarter. Mr. ———.

248. FRENCH LITERATURE OF THE FOURTEENTH AND FIFTEENTH CENTURIES (5). Prerequisite, French 221 or 265.

(1952-1953 and alternate years.) *Spring quarter*. Messrs. Holmes, Linker.

265-266. FRENCH LITERATURE OF THE RENAISSANCE (10).

(1952-1953 and alternate years.) *Winter and spring quarters*. Mr. Lyons.

324. ROMANCE PALEOGRAPHY (5).

(1952-1953 and alternate years.) *Winter quarter*. Mr. Linker.

331. HISTORY OF FRENCH LITERATURE PRIOR TO 1300 (5). French 221

is desired, though not prerequisite.

(1952-1953 and alternate years.) *Fall quarter*. Mr. Holmes.

370. SEMINAR IN MINOR ROMANCE TONGUES (5).

(1951-1952 and alternate years.) *Spring quarter*. Mr. Holmes.

395. RESEARCH (5).

Research in a special field under the direction of a member of the department.

ITALIAN

Courses for Undergraduates

51. ELEMENTARY COURSE (5). Prerequisite, intermediate French or Spanish.

Fall quarter. Mr. Lyons.

52. MODERN ITALIAN LITERATURE (5). Prerequisite, Italian 51.

Winter quarter. Mr. Lyons.

Courses for Graduates and Advanced Undergraduates

131. DANTE I (5). Prerequisites, Italian 51, 52.

Winter quarter. Mr. Huse.

132. DANTE II (5). Prerequisite, Italian 131.

Spring quarter. Mr. Huse.

156. DANTE IN ENGLISH TRANSLATION (Comparative Literature 156) (5).

Winter quarter. Mr. Huse.

161. ITALIAN LITERATURE OF THE RENAISSANCE (5). Prerequisites, Italian 51, 52.

Fall quarter. Mr. Huse.

181. THE ITALIAN SETTECENTO (5). Prerequisites, Italian 51, 52.

A survey of the literature of the eighteenth century in Italy, with an intensive study of Goldoni and Alfieri.

(1951-1952 and alternate years.) *Spring quarter*. Mr. Lyons.

Courses for Graduates

221. OLD ITALIAN (5).

(1951-1952 and alternate years.) *Fall quarter*. Mr. Holmes.

245. THE ITALIAN TRECENTO: PETRARCH AND BOCCACCIO (5). Prerequisites, Italian 51, 52.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Lyons.

PORTUGUESE

Courses for Undergraduates

51. ELEMENTARY PORTUGUESE (5). Prerequisite, intermediate French or Spanish.

Fall quarter. Mr. Walther.

52. READINGS IN BRAZILIAN LITERATURE (5). Prerequisite, Portuguese 51.

Winter quarter. Mr. Walther.

Courses for Graduates and Advanced Undergraduates

101. MASTERPIECES OF PORTUGUESE LITERATURE (5). Prerequisite, Portuguese 52 or its equivalent.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Walther.

102. MODERN BRAZILIAN LITERATURE (5). Prerequisite, Portuguese 52 or its equivalent.

Spring quarter. Mr. Walther.

Course for Graduates

221. OLD PORTUGUESE (5).

One quarter. 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 pages 161-62.

Courses for Undergraduates

1-2. ELEMENTARY SPANISH (10).

Five hours a week, through two quarters. Messrs. Duffey, 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 SPANISH (10).

Five hours a week, through two quarters. Messrs. Walther, Duffey, Keller, McKnight, and staff.

14-15. BEGINNING COURSE FOR ADVANCED STUDENTS (10). Elective.

Five hours a week, fall and winter quarters. Messrs. Stoudemire, McKnight.

*21-22. ADVANCED SPANISH (10). Sophomore elective.

Introduction to Spanish literature.

Five hours a week, through two quarters. Messrs. Leavitt, Adams, Stoudemire, Walther, Duffey, Keller, McKnight.

* Either of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

25. COMMERCIAL SPANISH (5). Prerequisite, intermediate Spanish.
Fall quarter. Mr. McKnight.
50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (5).
Prerequisite, intermediate Spanish.
Winter quarter. Messrs. Stoudemire, McKnight.
51. SPANISH CONVERSATION AND COMPOSITION (5).
Any quarter. Mr. Duffey.
52. SPANISH CIVILIZATION (CONVERSATION) (5). Prerequisite, Spanish
51.
Any quarter. Mr. Duffey.
53. LATIN AMERICAN CIVILIZATION (CONVERSATION) (5). Prerequisite,
Spanish 51.
A survey in Spanish of the history and culture of Latin America.
Spring quarter. Mr. Duffey.
71. SURVEY OF SPANISH LITERATURE TO 1700 (5). Prerequisites, Spanish
21-22.
Open to juniors and seniors.
Fall quarter. Messrs. Stoudemire, McKnight.
72. SURVEY OF SPANISH LITERATURE SINCE 1700 (5).
This course is a continuation of Spanish 71. Open to juniors and seniors.
Winter quarter. Messrs. Stoudemire, McKnight.
73. SURVEY OF SPANISH-AMERICAN LITERATURE (5). Prerequisite,
Spanish 71-72. Open to juniors and seniors.
Spring quarter. Mr. Walther.
83. MATERIALS AND METHODS IN HIGH SCHOOL SPANISH (Education
83b) (5).
Winter quarter. Mr. Giduz.
84. DIRECTED TEACHING OF HIGH SCHOOL SPANISH (Education 84b)
(5).
Any quarter. *Laboratory fee, \$10.00.* Mr. Giduz.
97. HONORS COURSE (5).
Required of all students reading for honors in Spanish.

Courses for Graduates and Advanced Undergraduates

109. EARLY SPANISH PROSE FICTION (5). Prerequisites, Spanish 71, 72.
(1952-1953 and alternate years.) *Fall quarter.* Mr. Adams.
110. THE SPANISH NOVEL, 1605-1898 (5). Prerequisites, Spanish 71, 72.
(1952-1953 and alternate years.) *Winter quarter.* Mr. Adams.
111. MODERN SPANISH NOVELISTS (5). Prerequisites, Spanish 71, 72.
(1952-1953 and alternate years.) *Spring quarter.* Mr. Adams.
112. THE NOVEL IN SPANISH AMERICA (5). Prerequisites, Spanish 71, 72.
(1951-1952 and alternate years.) *Spring quarter.* Mr. Leavitt.
115. EARLY LYRIC POETRY (5). Prerequisites, Spanish 71, 72.
(1951-1952 and alternate years.) *Fall quarter.* Mr. Adams.

116. MODERN LYRIC POETRY (5). Prerequisites, Spanish 71, 72.
(1951-1952 and alternate years.) *Winter quarter*. Mr. Adams.
117. CERVANTES (5). Prerequisites, Spanish 71, 72.
Spring quarter. Mr. Stoudemire.
131. LOPE DE VEGA AND HIS CONTEMPORARIES (5). Prerequisites,
Spanish 71, 72.
Fall quarter. Mr. Leavitt.
132. CALDERÓN AND HIS CONTEMPORARIES (5). Prerequisites, Spanish
71, 72.
Winter quarter. Mr. Leavitt.
134. SPANISH DRAMA OF THE NINETEENTH CENTURY (5). Prerequi-
sites, Spanish 71, 72.
(1952-1953 and alternate years.) *Spring quarter*. Mr. Leavitt.
135. MODERN SPANISH DRAMA (5). Prerequisites, Spanish 71, 72.
(1951-1952 and alternate years.) *Spring quarter*. Mr. Leavitt.
145. SPANISH PHONETICS (5). Prerequisites, Spanish 71, 72.
Spring quarter. Mr. Duffey.

Courses for Graduates

201. BIBLIOGRAPHY AND METHODOLOGY (5). Required of all candidates
for the Ph.D. degree.
Fall quarter. Mr. Stoudemire.
209. NON-FICTIONAL PROSE OF THE SIGLO DE ORO (5).
A study of the critical, historical, scientific, and philosophical writings of the
sixteenth and seventeenth centuries.
(1951-1952 and alternate years.) *Winter quarter*. Mr. Stoudemire.
- 221-222. OLD SPANISH (10).
Five hours a week, fall and winter quarters. Mr. Keller.
241. STUDIES IN SPANISH-AMERICAN LITERATURE (5).
(1952-1953 and alternate years.) *Spring quarter*. Mr. Leavitt.
291. EARLY SPANISH LITERATURE (5). Prerequisite, Spanish 221-222.
Spring quarter. Mr. Keller.
393. SPANISH ROMANTICISM (5). Seminar course.
(1951-1952 and alternate years.) *Spring quarter*. Mr. Adams.
395. RESEARCH (5).
Research in a special field under the direction of a member of the department.

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professors: H. W. ODUM, H. D. MEYER, S. H. HOBBS, JR., R. B. VANCE, G. B. JOHNSON, KATHARINE JOCHER, G. W. BLACKWELL, L. M. BROOKS, W. B. SANDERS, *J. P. GILLIN, N. J. DEMERATH, REUBEN HILL, E. W. NOLAND, D. O. PRICE

Visiting Professor: †WESTON LA BARRE

Associate Professors: HARRIET L. HERRING, J. J. HONIGMANN, G. L. SIMPSON, JR.

Assistant Professors: FRANK LEBAR, W. D. SCHORGER

Lecturer: ETHEL M. NASH

Instructor: J. L. COE

Part-time Instructors: W. D. WEED, W. L. CUPP, J. T. GREENE

Teaching Fellow: R. J. PELLEGRIN

Graduate Assistants: O. N. SIMPKINS, G. H. FISHER

Undergraduate major in sociology: Sociology 51 and Anthropology 41, usually taken in the sophomore year, and six elective courses in general sociology and rural sociology‡. If courses equivalent to Sociology 51 and Anthropology 41 have been successfully completed elsewhere with a grade of C or better, only six additional courses, including Sociology 56, are required. A student majoring in sociology may take as many as three courses in anthropology as an allied field. Double-listed courses must count in the field of the major.

Through proper selection of courses in the major, allied, and non-divisional fields, students may prepare for positions in public school teaching of social studies, in personnel work, as social case work aides, and in other related lines of endeavor; or for graduate study in sociology, rural sociology, social work, personnel, and other specialities.

A major in sociology may also prepare for recreation leadership. Other departments contributing to this specialization are Physical Education, Dramatic Art, Art, Music, and Psychology. This major functions on both undergraduate and graduate levels.

Undergraduate major in anthropology: Anthropology 41 and Sociology 51, usually taken in the sophomore year, and six elective courses in anthropology. If courses equivalent to Anthropology 41 and Sociology 51 have been successfully completed elsewhere with a grade of C or better, only six additional courses in anthropology are

* Absent on leave, fall and winter quarters, 1951-1952.

† Fall quarter, 1951.

‡ 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.

required. A student majoring in anthropology may take as many as three courses in sociology as an allied field. Double-listed courses must count in the field of the major.

Majors in anthropology may prepare for positions as museum assistants, as research assistants in cultural anthropology and prehistoric archaeology, and for other lines of endeavor, as well as for graduate work in anthropology.

Undergraduate split major in sociology-anthropology: Sociology 51 and Anthropology 41, usually taken in the sophomore year, and three additional courses in sociology and three additional courses in anthropology. This split major is designed primarily for prospective public school teachers in the social studies and for students interested in a broad liberal education with no special vocational purpose.

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: Except in special cases, the following courses or their equivalents are required for those majoring in sociology for a graduate degree: 152, History of Social Thought; 191, Social Statistics; and 208, Methods in Social Research. Candidates for the doctorate should also have Sociology 212, American Sociologists; and Sociology 262, European Sociology Theory.

Candidates for the A.M. or Ph.D. degrees in general sociology may minor in rural sociology, anthropology, any of the other social sciences or related fields such as statistics, planning, public health, or social work. A split minor in two fields for the Ph.D. is possible 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.

The A.M. degree in anthropology is offered and candidates for this degree may minor in general sociology, rural sociology, or any of the other social sciences.

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.

Courses in rural sociology and anthropology are grouped separately following the courses in general sociology, with anthropology courses carrying the designation "Anthropology" on registration forms.

GENERAL SOCIOLOGY

Courses for Undergraduates

51. INTRODUCTION TO SOCIOLOGY (5).

An analysis of the natural, cultural, and institutional bases of society; the processes and trends underlying problems and adjustments.

Any quarter. Materials fee, \$1.00. Messrs. Brooks, Vance, Blackwell, Noland, Price, Pellegrin, Simpkins, Weed.

52. SOCIAL PROBLEMS (5). No prerequisite. Elective for students not majoring in this department.

Introductory course in social problems with primary emphasis on positive features and secondary consideration to social pathology—background of social problems, social change, group conflict, social attitudes, and social adjustment.

Any quarter. Materials fee, \$1.00. Messrs. Sanders, Cupp.

56. HOW TO STUDY SOCIETY (5). Prerequisites, Sociology 51 and Anthropology 41.

An introduction to the quantitative methods of studying society with special emphasis upon the tools of research in sociology; examination and analysis of current research projects, governmental and private. Required of majors entering in the summer of 1952 and thereafter.

Winter quarter. Mr. Price.

62. MARRIAGE (5). No prerequisite. Open to General College students, juniors, and seniors.

Analysis of courtship, marriage, and family relationships. Integration of the social sciences, biology, psychology, and religion along with literature and the arts as they each contribute to the understanding of current marital and familial problems.

Winter and spring quarters. Messrs. Hill, Greene, Mrs. Nash.

95, 96, 97. HONORS READING COURSES (5 each quarter). 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.

Any quarter. Members of the department.

Courses for Graduates and Advanced Undergraduates

122. CULTURAL ANTHROPOLOGY (Anthropology 122) (5).

A systematic survey of the customs and modes of life of mankind based on scientific explanation of the ways of culture. Special attention to relating the materials of comparative ethnology to problems of cultural adjustment in our own society.

Winter quarter. Materials fee, \$1.00. Messrs. Gillin, Johnson.

125. THE NEGRO (5).

A study of the Negro in the United States. Some attention is given to historical and cultural backgrounds in Africa and America, but the main emphasis is upon

the Negro community and its institutions, status of the Negro in American society, problems of race relations, and the process of integration.

Fall quarter. Mr. Johnson.

128. FOLK CULTURES IN THE MODERN WORLD (Anthropology 128) (5).

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. Consideration is given to this design for living in various parts of the world, with particular reference to the folk culture of southeastern United States.

(1952-1953 and alternate years.) *Fall quarter.* *Materials fee, \$1.00.* Mr. Gillin.

133. INTRODUCTION TO SOCIAL PSYCHOLOGY (Psychology 133) (5).

Prerequisites, Psychology 24 and 25.

Social groupings; dynamics of person-to-person relations.

Mr. McCurdy.

142. FOUNDATIONS OF THE SOCIAL SCIENCES (Philosophy 142) (5).

Prerequisites, two courses in philosophy, psychology, or sociology.

An attempt to establish an approach to the social sciences based on the notion of directed behavior. The course seeks to construct a theoretical framework for modern social science and a possible science of man.

Spring quarter. Mr. Kattsoff.

152. HISTORY OF SOCIAL THOUGHT (5). Prerequisite, introductory course in one of the social sciences or philosophy.

A survey of social thought antecedent to the development of scientific sociological theory, paralleling the development of Western and Oriental society and culture. Leading figures from Confucius to Marx treated historically and comparatively. Required of all candidates for graduate degrees in sociology.

Spring quarter. Messrs. Vance, Demerath.

153. SOCIAL STRUCTURE (5).

Social structure and stratification are analyzed in terms of class, status, prestige, rank, and function. Type societies and institutions are studied to determine (1) the distribution of authority, (2) the integration of functions, and (3) the hierarchy of rank. Special attention is given to the social role of the elite, bureaucracies, and professional and middle classes.

(1951-1952 and alternate years.) *Winter quarter.* Mr. Vance.

154. CONTEMPORARY SOCIETY (5). 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.

Fall quarter. Mr. Odum.

160. THE FIELD OF SOCIAL WORK (5).

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 quarter. Messrs. Fink, Hunter.

161. SOCIOLOGY OF THE FAMILY (5).

Analysis of contemporary family institutions as they vary in historical time and social space as a background for interpreting American family life in its societal contexts.

(1951-1952 and alternate years.) *Spring quarter.* Mr. Hill.

162. DYNAMICS OF FAMILY DEVELOPMENT (5). 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—from engagement planning to family dissolution.

(1952-1953 and alternate years.) *Winter quarter*. Mr. Hill.

168. THE CITY (5).

The city as a social phenomenon in various cultures. Analysis of urban trends, characteristics, and functions of cities with special reference to ecology and social organization. Sociological elements in housing, in urban planning, and in guided development.

Winter quarter. *Materials fee*, \$1.00. Mr. Demerath.

169. THE INDUSTRIAL COMMUNITY (5).

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.

Winter quarter. Miss Herring.

170. INDUSTRIAL SOCIOLOGY (5).

A study of human relations in industry from the standpoint of the sociological and socio-psychological factors involved. The basic human problems in an industrial situation and the methods of approaching them; status and role in the work situation; sources of friction and problems of maintaining morale and cooperation; structural characteristics of industrial hierarchies; interrelations between industry and community.

Fall quarter. Mr. Noland.

173. COMMUNITY RECREATION (5).

Foundations of organized recreation; backgrounds and theories; objectives and principles; social and economic factors; public, private, and commercial interests; recreation and the social institutions—family, church, school, and community; recreation and camping; programs for the defective, delinquent, and dependent; youth serving agencies and industrial interests, international aspects; inequalities and future opportunities.

Fall quarter. Mr. Meyer.

174. COMMUNITY ORGANIZATION (5).

Within the theoretical framework of structure-function, the course analyzes dimensions of community, variation and change, integration and disorganization, techniques and principles of community development.

Spring quarter. *Materials fee*, \$1.00. Mr. Blackwell.

176. PROGRAM PLANNING FOR COMMUNITY RECREATION (5).

An investigation of research possibilities; surveys and studies; immediate and long-range planning; 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; areas and facilities; types and functions; equipment and maintenance.

Winter quarter. Mr. Meyer.

180. STATE AND REGIONAL PROBLEMS AND PLANNING (5).

A survey of the field of state and regional problems and planning with special reference to the basic theory of regionalism. Includes case studies of selected state and regional planning programs and agencies.

(1952-1953 and alternate years.) *Winter quarter*. Messrs. Odum, Blackwell.

181. REGIONAL SOCIOLOGY OF THE SOUTH (5).

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.

Fall quarter. Materials fee, \$1.00. Messrs. Blackwell, Simpson.

183. SOCIAL CONTROL AND PUBLIC OPINION (5).

The bases of social control; psychological, cultural, and institutional factors conditioning the management of public opinion. Special emphasis on techniques of social persuasion and control.

Winter quarter. Mr. Brooks.

186. POPULATION (5).

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 quarter. Materials fee, \$1.00. Mr. Vance.

190. DIAGNOSIS OF JUVENILE DELINQUENCY (5). Not open to students credited with Sociology 198 prior to fall quarter, 1950.

After a brief historical background this course traces the development of case study and diagnosis of juvenile delinquency through various approaches.

Winter quarter. Materials fee, \$1.00. Mr. Sanders.

191. SOCIAL STATISTICS (5). Prerequisites, three courses in sociology.

The topics usually covered in an elementary course in statistics are treated with emphasis on those best adapted to sociological research. Required of all candidates for graduate degrees in sociology.

Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$2.00. Mr. Price.

192. CRIMINOLOGY (5).

The principles of criminology and penology with emphasis on psycho-sociological factors; study of historical and contemporary theory and practice.

Fall quarter. Messrs. Brooks and Sanders.

193. SOCIAL PATHOLOGY (5).

Emphasis on poverty and relief with coordinate study of delinquency vagrancy, prostitution, alcoholism, crime, mental defects, and other pathological conditions. Analysis of therapeutic measures. Field trips to county and state institutions.

Spring quarter. Mr. Sanders.

194. QUANTITATIVE TREATMENT OF MASS DATA (3). Prerequisite, Sociology 191 or an equivalent introductory course in statistics.

Consideration of research problems in the quantitative treatment of mass data, including formulation of hypotheses susceptible to testing with available mechanical tabulation and analysis techniques.

Spring quarter. (This course is given at North Carolina State College, Raleigh, as Statistics 302.)

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.

(Replaces the former Sociology 196 which was cross-listed with Mathematical Statistics 126.)

(Not offered in 1951-1952.) *Spring quarter.* Mr. Price.

197. POPULATION STATISTICS (5).

Training in techniques for quantitative research with population data. Description of composition characteristics, making of population estimates, computation and standardization of birth and death rates, construction and application of life tables, measurement of migration.

(1952-1953 and alternate years.) *Four lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$2.00.* Mr. Price.

198. TREATMENT OF JUVENILE DELINQUENCY (5).

Emphasis on the juvenile court and various means of prevention and treatment of juvenile delinquency. Primarily for seniors and graduate students majoring in sociology.

Spring quarter. Materials fee, \$1.00. Mr. Sanders.

199. MODERN PENOLOGY (5). 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.

(1951-1952 and alternate years.) *Spring quarter.* Mr. Brooks.

Courses for Graduates

208. METHODS IN SOCIAL RESEARCH (5).

An analysis of social research planned to give the student acquaintance with the scientific method and the interrelationship of the social sciences, the role of theory in scientific research, the training of research personnel, and methods of procedure in working with source materials. Required of first-year graduate students in sociology.

Fall quarter. Materials fee, \$1.00. Mr. Blackwell, Miss Jocher.

210. FOLK SOCIOLOGY (5).

An approach to a new general sociology, utilizing the folk-regional society and regionalism as a study of natural societal evolution in contrast with modern artificial society and technology. Contributions are sought to sound social theory as it relates to the understanding of cultures and the direction of civilization.

Spring quarter. Mr. Odum.

212. AMERICAN SOCIOLOGISTS (5).

An analysis of the work and personalities of living American sociologists projected on the background of the sociology of the earlier American sociologists. Required of all candidates for the Ph.D. degree in sociology.

Winter quarter. Mr. Odum.

215. EXPERIMENTAL SOCIOLOGY (5). Prerequisite, Sociology 191 or equivalent plus some knowledge of analysis of covariance.

A study of the experiment as a research method in sociology. The choice and statement of hypotheses suitable for testing with social experiments, methods of measuring variables and of controlling extraneous variables, types of stimuli, measurement of results, accuracy and generality of conclusions.

(1952-1953 and alternate years.) *Fall quarter. Materials fee, \$1.00.* Mr. Price.

218. HUMAN ECOLOGY (SEMINAR) (5).

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.

(1952-1953 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Vance.

220. THEORIES OF CULTURE (Anthropology 220) (5).

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.

(1951-1952 and alternate years.) *Spring quarter. Materials fee, \$1.00.* Mr. Gillin.

221. FIELD METHODS IN CULTURAL ANTHROPOLOGY (Anthropology 221) (5).

A practical orientation to field research; includes topics of rapport, learning foreign languages, observation, interviewing, recording, note taking and filing, and the use of informants.

Spring quarter. Mr. Honigmann.

229. CULTURE AND PERSONALITY (Anthropology 229) (5).

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.

(1951-1952 and alternate years.) *Fall quarter. Materials fee, \$1.00.* Messrs. Gillin, La Barre.

230. RACE AND CULTURE CONTACTS (Anthropology 230) (5).

An analysis of acculturation situations arising from contacts of peoples of different racial or cultural heritages in America, Africa, Polynesia, Melanesia, and other areas.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Johnson.

233. METHODS OF INVESTIGATION IN SOCIAL PSYCHOLOGY (Psychology 233) (5).

Analysis of selected research problems from the standpoint of theory and techniques; intensive study of public opinion research.

240. SOCIAL RESEARCH IN INDUSTRIAL RELATIONS (5). Prerequisite, Sociology 170 or Economics 191.

A critical appraisal of recent and current research in human relations in industry with emphasis upon methodology and research opportunities. Systematic analysis of theories and procedures of sociology, anthropology, and social psychology bearing upon research in labor and industrial relations. Analysis of industrial research from the standpoint of an appropriate conceptual framework, financial support, public relations, and research techniques.

Spring quarter. Mr. Noland.

253. ADVANCED SOCIAL STATISTICS (5). Prerequisite, Sociology 191.

Multiple and partial correlation, analysis of variance and covariance, sampling, and other topics applicable to specific research projects of the student.

Four lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$2.00. Mr. Price.

262. EUROPEAN SOCIOLOGICAL THEORY (SEMINAR) (5).

Social organization, change, and social action as interpreted by Pareto, Marx, Durkheim, Max Weber, Karl Mannheim, and other European theorists, together with consideration of their influence currently in the United States. Required of all candidates for the Ph.D. degree in sociology.

Fall quarter. Mr. Demerath.

270. SOCIOLOGY OF RELIGION (Religion 270) (5).

Analysis of tensions between the scientific, ethical, and theological study of society; the role of religion in social change; the social origins of the denomina-

tions; the sociological significance of the Reformation; "sect" and "church" in sociological theory.

(1951-1952 and alternate years.) *Winter quarter*. Mr. Nash.

276. ADMINISTRATION OF RECREATION (5).

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 quarter. Mr. Meyer.

301, 302, 303. GRADUATE RESEARCH SEMINAR (5 each quarter). Registration by permission of instructor.

Advanced reading, library research or field research on a selected topic under guidance of the instructor.

Any quarter. Members of the department.

315, 316, 317. GRADUATE SEMINAR IN RESEARCH METHODOLOGY (5 each quarter). Registration by permission of the instructor.

Special work on selected problems of research methodology.

Any quarter. Members of the department.

327, 328, 329. GRADUATE RESEARCH SEMINAR (5 each quarter). Registration by permission of the instructor.

Research on selected topics.

Any quarter. Mr. Odum.

331. NATIONAL AND LOCAL POLICIES FOR FAMILY LIFE (5).

Graduate research seminar.

(Not offered in 1952-1953.) *Winter quarter*. Mr. Hill.

333. EDUCATION FOR MARRIAGE AND FAMILY LIFE (5).

A graduate seminar on educational programs for the conservation of marriage and the family. Students electing this seminar should audit Sociology 62 for observation of content and techniques in a course designed as preparation for marriage and family life.

(1952-1953 and alternate years.) *Spring quarter*. Mr. Hill.

334. CRITIQUE OF RESEARCH IN MARRIAGE AND THE FAMILY (5).

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.

(1951-1952 and alternate years.) *Winter quarter*. Mr. Hill.

341. SEMINAR (5).

Individual research (thesis or dissertation) in a selected field under the direction of a member of the department.

Any quarter.

***RURAL SOCIOLOGY**

Course for Undergraduates

53. RURAL SOCIAL ECONOMICS (5). 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 quarter. Mr. Hobbs.

* 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 (5).

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 quarter. Mr. Hobbs.

102. RURAL SOCIOLOGY (5).

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.

Winter quarter. Mr. Hobbs.

103. HISTORY OF AGRICULTURAL AND RURAL INSTITUTIONS (5).

This course traces the development of agriculture from its earliest beginnings to the present: early developments; Greece and Rome; later agriculture in Europe; American agricultural institutions.

Spring quarter. Mr. Hobbs.

110. RURAL LAND PLANNING AND LAND ECONOMICS (5). 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.

Winter quarter. Mr. Hobbs.

166. THE RURAL COMMUNITY (5).

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 quarter. Mr. Hobbs.

Courses for Graduates

311, 312, 313. RURAL SOCIAL PROBLEMS (5 each quarter). 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 techniques and field work; rural social statistics, interpretation and use; rural social engineering.

Any quarter. Mr. Hobbs; assistant.

*ANTHROPOLOGY

Courses for Undergraduates

41. GENERAL ANTHROPOLOGY (5).

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 cultural developments of human history with a general study of the functioning principles of culture. Study of selected culture areas.

Any quarter. Materials fee, \$1.00. Messrs. Gillin, Johnson, Schorger, Fisher.

* As indicated, certain courses in anthropology also carry credit in general sociology.

74. ARCHAEOLOGY OF NORTH AMERICA (5).

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.

Winter quarter. Laboratory fee, \$1.00. Mr. Coe.

79. RESEARCH METHODS IN ARCHAEOLOGY (5).

A study of the basic principles underlying archaeological study of prehistoric sites, with discussion of methods employed at various outstanding excavations; a study of laboratory methods, problems of analysis and interpretation, integration, and application to cultural history. Field trips and laboratory work.

Spring quarter. Laboratory fee, \$3.00. Mr. Coe.

95, 96, 97. HONORS READING COURSES (5 each quarter). 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.

Any quarter. Members of the department.

Courses for Graduates and Advanced Undergraduates

122. CULTURAL ANTHROPOLOGY (Sociology 122) (5).

A systematic survey of the customs and modes of life of mankind based on scientific explanation of the ways of culture. Special attention to relating the materials of comparative ethnology to problems of cultural adjustment in our own society.

Winter quarter. Materials fee, \$1.00. Messrs. Gillin, Johnson.

123. PRIMITIVE RELIGIONS (5).

Survey and analysis of a representative series of religious systems and beliefs of the so-called primitive peoples; approached from the point of view of cultural anthropology; attention is given to the development of religious forms leading to world religions, and to the relation of religion to other aspects of culture and human activity.

Winter quarter. Mr. Honigmann.

124. FOLK AND PRIMITIVE TECHNOLOGIES (5).

An intensive study of the technological culture of a selected series of native peoples in so-called underdeveloped areas. Not only for students of anthropology, but also for planners and field technicians who will be engaged in programs of assistance.

Spring quarter. Mr. Lebar.

126. RACES AND PEOPLES OF AFRICA (5).

A survey of the native peoples and cultures of Africa south of the Sahara. Ethnology of typical tribal groups in the various culture areas, with some attention to processes of acculturation, problems of race relations, and the emergence of nationalistic movements.

(1951-1952 and alternate years.) *Spring quarter. Materials fee, \$1.00. Mr. Johnson.*

127. NATIVE PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA (5). Not open to students credited with Anthropology 127 prior to fall quarter, 1950.

Modern Mexico and Central America seen against the background of archaeology, physical anthropology, and aboriginal culture, including both the "high cul-

tures" of the Aztec and Mayas and the tribal cultures of various regions; present-day mixtures and syntheses in physical types, customs, and institutions.

(This course replaces, in part, former Anthropology 127.)

(1952-1953 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Gillin.

128. FOLK CULTURES IN THE MODERN WORLD (Sociology 128) (5).

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. Consideration is given to this design for living in various parts of the world, with particular reference to the folk culture of southeastern United States.

(1952-1953 and alternate years.) *Fall quarter. Materials fee, \$1.00.* Mr. Gillin.

129. PEOPLES OF OCEANIA (5). Prerequisite, Anthropology 41.

Five hours a week, winter quarter. Mr. Lebar.

130. INDIANS OF NORTH AMERICA (5).

A descriptive study of the cultural areas of North America at the time of European contact. Special emphasis is placed on the major tribes of the Southeast.

Fall quarter. Laboratory fee, \$1.00. Messrs. Johnson, Coe.

131. CULTURES OF SOUTHEAST ASIA (5). Replaces Anthropology 99.

The cultures and social structures of southeast Asia with emphasis on modern China and India. The analysis will deal with pertinent geographic, racial, and historical considerations as these relate to culture patterns.

(1952-1953 and alternate years.) *Fall quarter.* Mr. Lebar.

132. NATIVE PEOPLES AND CULTURES OF SOUTH AMERICA (5). Not open to students credited with Anthropology 127 prior to fall quarter, 1950.

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.

(This course replaces, in part, former Anthropology 127.)

(1951-1952 and alternate years.) *Winter quarter. Materials fee, \$1.00.* Mr. Gillin.

136. COMPARATIVE SOCIAL ORGANIZATION IN SELECTED CULTURES (5).

A study of social and political behavior and institutional structure illustrated from a selected series of non-European cultures.

Winter quarter. Mr. Schorger.

137. CULTURES OF NORTH AFRICA AND THE MIDDLE EAST (5).

A survey and analysis of the racial and cultural characteristics of the Arab world, including a consideration of geographical and historical influences, and an introduction to the pertinent aspects of Islam.

Spring quarter. Mr. Schorger.

185. INTRODUCTION TO FOLKLORE (Folklore 185) (5).

Definitions and examples of folklore in general and its various categories. Collection, classification, study, and analysis of folklore materials. Bibliography.

(1952-1953 and alternate years.) *Fall quarter.* Mr. Keller.

Courses for Graduates

220. THEORIES OF CULTURE (Sociology 220) (5).

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 fieldwork and further studies involving cultural problems.

(1951-1952 and alternate years.) *Spring quarter. Materials fee, \$1.00.* Mr. Gillin.

221. FIELD METHODS IN CULTURAL ANTHROPOLOGY (Sociology 221) (5).

A practical orientation to field research; includes topics of rapport, learning foreign languages, observation, interviewing, recording, note taking and filing, and the use of informants.

Spring quarter. Mr. Honigmann.

229. CULTURE AND PERSONALITY (Sociology 229) (5).

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.

(1951-1952 and alternate years.) *Fall quarter.* Materials fee, \$1.00. Messrs. Gillin, La Barre.

230. RACE AND CULTURE CONTACTS (Sociology 230) (5).

An analysis of acculturation situations arising from contacts of peoples of different racial or cultural heritages in America, Africa, Polynesia, Melanesia, and other areas.

(1952-1953 and alternate years.) *Spring quarter.* Mr. Johnson.

321, 322, 323. SEMINAR IN ANTHROPOLOGY (5 each quarter). Prerequisites, Anthropology 122 and permission of the instructor.

Advanced reading, library research, field research in anthropology under guidance of the instructor.

Any quarter. Messrs. Gillin, Johnson.

341. SEMINAR (5).

Individual research (thesis or dissertation) in a selected field under the direction of a member of the department.

Any quarter.

DEPARTMENT OF ZOOLOGY

Professors: D. P. COSTELLO, R. E. COKER, C. D. BEERS

Associate Professors: W. L. ENGELS, MAURICE WHITTINGHILL, C. S.

JONES, D. G. HUMM, H. E. LEHMAN

Assistant Professor: C. E. JENNER

Research Associate: CATHERINE HENLEY

Teaching Fellow: LILLIAN M. YOUNGS

Graduate Assistants: J. R. COLLIER, W. B. JEFFRIES, MARY C. MC-
MASTER, J. W. MCKENZIE

Requirements for Undergraduate Major: For the A.B. with major in zoology, there are required six courses in zoology of the level of 41 or higher, these six courses to include Zoology 41, 42, 103, 104 and two other courses. Six courses must be taken in allied departments of the Division of Natural Sciences, including two courses in chemistry, two in physics, and Botany 41. Courses in chemistry or mathematics numbered below 31 will not count toward the requirements

in the allied fields. Courses (at least six) necessary to complete the required number of hours for graduation must be taken 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 statement on pages 161-62.

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. (See page 440.)

Courses for Undergraduates

1. ELEMENTS OF HUMAN AND ANIMAL BIOLOGY (5). 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.

Basic similarities of all living organisms; organ systems and their physiology; embryology, genetics, organic evolution, ecology, survey of the major phyla.

Four lecture and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00. Messrs. Lehman, Humm; assistants.

38. ANIMAL EVOLUTION (5). Prerequisites, Zoology 1, or Zoology 41 and 42. Not open to freshmen.

The principle of organic evolution as the unifying concept of the biological sciences: historical development; nature of the evidence; Darwinian and neo-Darwinian concepts; theories of the mechanism; some impacts of the evolution concept in other fields.

Five lecture and demonstration hours a week, fall and spring quarters. Messrs. Jones, Lehman.

41. INTRODUCTORY VERTEBRATE ZOOLOGY (6).

Zoology 41 and 42 are planned to serve general cultural needs for the field of zoology. They also serve to meet in part the usual pre-professional requirements.

Fundamentals of vertebrate anatomy, physiology, histology, embryology, classification, and homology.

Four lecture and four laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50. Mr. Jones; assistants.

42. INTRODUCTORY INVERTEBRATE ZOOLOGY AND PRINCIPLES (6). Prerequisite, Zoology 41, or special permission of the instructor.

Structure, function, relationships, and significance of invertebrate animals; and the general zoological principles of mitosis, meiosis, genetics, classification, and organic evolution.

Four lecture and four laboratory hours a week, winter and spring quarters. Laboratory fee, \$7.50. Mr. Jenner; assistants.

46. OCEANOGRAPHY (OCEANIC ECOLOGY) (5).

The course as now offered is experimental. Specific prerequisites are not set up; but enrollment is limited by consent of the instructor and the Dean of the College of Arts and Sciences, who must be satisfied as to the interest and the background of the student.

An introduction to the study of the seas with special reference to the conditions of biological productivity and fisheries. The history of oceanography; the chemical, physical, topographic, and general geographic features, and the plan of circulation, as such conditions affect life in the sea and the yield of useful products.

Four hours of lectures and reading and two hours of laboratory a week, fall or spring quarter. Mr. Coker.

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

103. COMPARATIVE VERTEBRATE ANATOMY (6). 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 nine laboratory hours a week, fall and winter quarters. Laboratory fee, \$12.50. Mr. Engels.

104. VERTEBRATE EMBRYOLOGY (6). Prerequisites, Zoology 103, or Zoology 41, 42 and special permission of the instructor.

Development in representative vertebrates, including man; special study of cleavage, germ-layer formation, organogenesis, and extra-embryonic membranes, using frog, chick, and pig.

Two lecture and nine laboratory hours a week, winter and spring quarters. Laboratory fee, \$10.00. Mr. Whittinghill.

105. VERTEBRATE HISTOLOGY AND MICROTÉCHNIQUE (6). Prerequisites, Zoology 103 and 104, or Zoology 103 and special permission of the instructor. Exceptions to these prerequisites 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 ten laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Beers or Mr. Costello.

106-107-108. MORPHOLOGY AND CLASSIFICATION OF THE INVERTEBRATES (5 each). Prerequisite, Zoology 103 or special permission of the instructor.

Dissection and microscopic study of selected types of the chief orders, with consideration of life histories and phylogeny. Basic course for all graduate work in zoology.

Ten laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50 a quarter. Mr. Beers.

109. INTRODUCTION TO HYDROBIOLOGY (6). 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 eight laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Jenner.

110. GENERAL PARASITOLOGY (5). 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.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Costello.

111. GENETICS (5). Prerequisites, Zoology 41 and 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.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Whittinghill.

112. VERTEBRATE FIELD ZOOLOGY (5). Prerequisite, Zoology 103 or special permission of the instructor.

Identification, habits, and distribution of local amphibians, reptiles, birds, mammals. Special consideration of geographic variation; speciation; ecological distribution; numbers, cycles, and populations; life histories; behavior.

Two lecture and eight laboratory and field hours a week, spring quarter. Laboratory fee, \$7.50. Mr. Engels.

118. EXPERIMENTAL MORPHOGENESIS OF VERTEBRATES (5). 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.

Five lecture or discussion hours a week, spring quarter. Mr. Lehman.

120. GENERAL PHYSIOLOGY OF ANIMALS (6). Prerequisites, Zoology 41 and 42. Not open to sophomores.

Fundamental chemical and physical principles as applied to living systems. The comparative physiology of osmosis, permeability, movement, respiration, digestion, excretion, and nervous transmission are considered.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Humm.

Courses for Graduates

209-210-211. EXPERIMENTAL EMBRYOLOGY (5 each). Prerequisite, Zoology 104.

The study of fertilization, cell-lineage, differentiation, and regeneration of invertebrates and vertebrates from the experimental viewpoint.

Four lecture and seminar and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$5.00 a quarter. Mr. Costello.

212. HYDROBIOLOGY (5). 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.

Ten laboratory hours a week, winter or spring quarter. Laboratory fee, \$7.50. Mr. Jenner.

213. HYDROBIOLOGY (5). Prerequisite, Zoology 109.

Advanced hydrobiology, having special reference to life in the sea and including general principles of oceanography. Reading, lectures, laboratory work, with one or more field trips to the coast.

Ten laboratory hours a week, fall, winter, or spring quarter. Laboratory fee, \$7.50. Mr. Coker.

215. PROTOZOOLOGY (5).

Introduction to research in protozoology. The collection, identification, and culture of selected types, chiefly free-living; microtechnical methods; survey of current literature.

Ten laboratory and seminar hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Beers.

220. CELLULAR PHYSIOLOGY (6). Prerequisites, Zoology 120 and organic chemistry.

A consideration of the physico-chemical aspects of protoplasm, including permeability, surface tension, pH, cellular metabolism, and other measurable properties of living cells.

Three lecture and six laboratory and problem hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Humm.

222. ADVANCED GENETICS (5). Prerequisite, Zoology 111.

Studies of the effects of chemical agents in the environment upon inheritance. Reports from the literature chiefly upon chemical mutagenesis. Laboratory experiments chiefly on the chemical induction of crossing over.

Ten laboratory hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Whittinghill.

223. RADIATION GENETICS (5). Prerequisite, Zoology 111.

Study of the action upon living cells of irradiation by X-rays, neutrons, infrared, ultra-violet, and other forms of radiation. Crossing over and mutations are emphasized.

Five lecture or seminar hours a week, spring quarter. Mr. Whittinghill.

330. RESEARCH IN PROTOZOOLOGY (5 or more).

Mr. Beers.

331. RESEARCH IN INVERTEBRATE ZOOLOGY (5 or more).

Mr. Beers.

332. RESEARCH IN EXPERIMENTAL CYTOLOGY (5 or more).

Mr. Costello.

333. RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF INVERTEBRATES (5 or more).

Mr. Costello.

334. RESEARCH IN CELL PHYSIOLOGY (5 or more).

Mr. Humm.

335. RESEARCH IN HYDROBIOLOGY (5 or more).

Mr. Coker or Mr. Jenner.

336. RESEARCH IN VERTEBRATE ZOOLOGY (5 or more).

Mr. Engels.

337. RESEARCH IN GENETICS (5 or more).

Mr. Whittinghill.

338. RESEARCH IN PHYSIOLOGY OF LOWER INVERTEBRATES (5 or more).

Mr. Jones.

339. RESEARCH IN EXPERIMENTAL EMBRYOLOGY OF VERTEBRATES (5 or more).

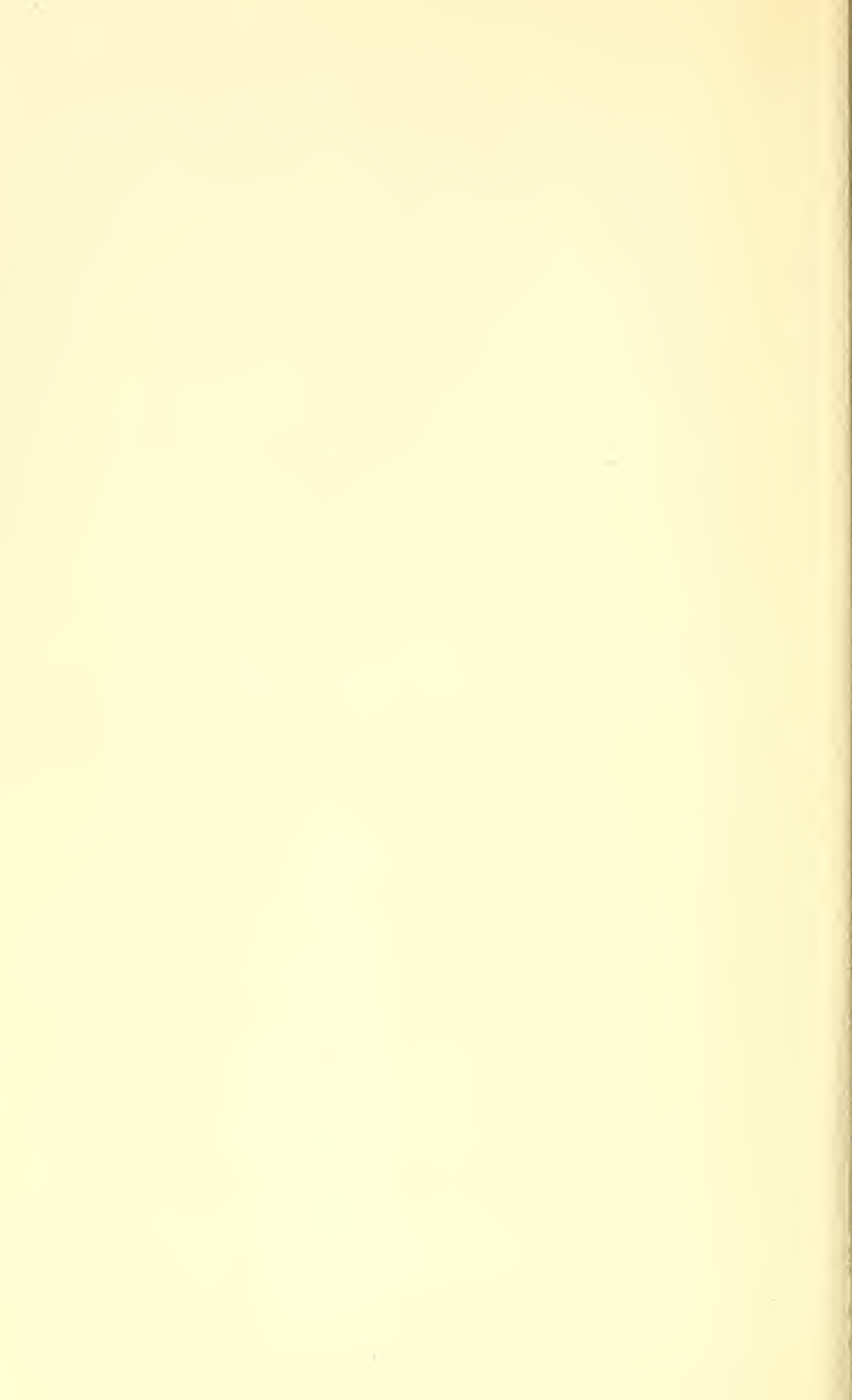
Mr. Lehman.

Courses 330 through 339 are designed for applicants for advanced degrees. The work of each of these courses may be continued for two or more quarters under the same course number. *Each course ten or more laboratory and conference hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50 per 5 quarter hours.*



Part Five

**DIVISIONS, INSTITUTES,
AND ORGANIZATIONS**



DIVISIONS, INSTITUTES, AND ORGANIZATIONS

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.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.

THE UNIVERSITY EXTENSION DIVISION

RUSSELL MARVIN GRUMMAN, B.H., *Director*

CHARLES FREMONT MILNER, A.M. in Educ., *Associate Director*

EDGAR RALPH RANKIN, A.M., *Head, Department of School Relations*

WILLIAM JOHN MCKEE, C.E., Ph.D., *Supervisor of Correspondence Instruction*

DWIGHT CARROLL RHYNE, A.B., M.A., *Administrative Assistant*

*The Administrative Board

GORDON W. BLACKWELL, Ph.D., *Professor of Sociology and Director of the Institute for Research in Social Science*

ALBERT COATES, A.B., LL.B., *Professor of Law and Director of the Institute of Government*

NORMAN CORDON, Mus.D., *Director of the North Carolina Music Program*

OLIVER KELLY CORNWELL, M.A., Ed.D., *Professor of Physical Education and Director of Physical Education*

WESLEY CRITZ GEORGE, Ph.D., *Professor of Histology and Embryology*

EARL HORACE HARTSELL, Ph.D., *Associate Professor of English and Director of the Bureau of English Extension*

SAMUEL HUNTINGTON HOBBS, JR., Ph.D., *Professor of Rural Sociology and Research Professor in the Institute for Research in Social Science*

ARNOLD KIMSEY KING, Ph.D., *Professor of Education and Associate Dean of the Graduate School*

STURGIS ELLENO LEAVITT, Ph.D., Litt.D., *Kenan Professor of Spanish and Director of the Institute of Latin American Studies*

* The Chancellor, the Director of Admissions and the Dean of Students are ex officio members of the Board.

- HAROLD DIEDRICH MEYER, A.M., LL.D., R.S.D., L.H.D., *Professor of Sociology and Director of the All-University Division of Recreation*
- CHARLES FREMONT MILNER, A.M. in Educ., *Associate Director of the Extension Division*
- GUY BERRYMAN PHILLIPS, M.A., *Professor of Education and Dean of the School of Education*
- SAMUEL SELDEN, A.B., *Professor of Dramatic Art and Director of The Carolina Playmakers*
- CORYDON PERRY SPRUILL, A.B., B.Litt. (Oxon.), *Professor of Economics and Dean of the General College*
- LOUIS ROUND WILSON, Ph.D., Litt.D., LL.D., L.H.D., *Professor of Library Science and Administration*
- REX SHELTON WINSLOW, Ph.D., *Professor of Economics and Director of the Bureau of Business Services and Research*
- HARRY DEMERLE WOLF, Ph.D., *Professor of Economics and Director of the Institute of Industrial Relations*
- EARL WYNN, M.S., *Professor of Radio and Communication and Director of the Communication Center*

Heads of Bureaus

- JOHN VOLNEY ALLCOTT, M.A., *Art Extension*
- JOHN WILLIAM PARKER, A.M., *Community Drama*
- GLEN HAYDON, Ph.D., *Community Music*
- GORDON W. BLACKWELL, Ph.D., *Community Organization*
- MARY LOUISA COBB, A.B., *Correspondence Instruction*
- SAMUEL HUNTINGTON HOBBS, JR., Ph.D., *Economic and Social Surveys*
- ALLAN S. HURLBURT, Ph.D., *Educational Research and Service*
- EARL HORACE HARTSELL, Ph.D., *English Extension*
- HARRY DEMERLE WOLF, Ph.D., *Institute of Industrial Relations*
- HAROLD DIEDRICH MEYER, A.M., LL.D., R.S.D., L.H.D., *Recreation*
- KENNETH MURCHISON MCINTYRE, B.S., *Visual Education*

Heads of Cooperative Services

- REX SHELTON WINSLOW, Ph.D., *Director, Bureau of Business Services and Research*
- EARL WYNN, M.S., *Director, The Communication Center*
- NELLIE ROBERSON, A.B., *Head, Library Extension Department*
- LINDSAY JACKSON PERRY, M.A., *Executive Secretary, North Carolina High School Athletic Association*
- NORMAN CORDON, Mus.D., *Director, North Carolina Music Program*

BENJAMIN SWALIN, Ph.D., *Professor of Music in Extension and Director of the North Carolina Symphony Society*

SHELDON WHITE, B.S., *Administrative Assistant, Division of Health Affairs*

General Statement

By means of correspondence instruction, extension classes, public forums, lecture series, extension library service, reading courses, community dramatics, interscholastic activities, audio-visual aids, and a variety of publications, the University of North Carolina, through the Extension Division, is relating itself closely with the life of North Carolina. The University campus is now virtually coterminous with the boundaries 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 the late 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.

In his inaugural address, November, 1931, President 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."

The Extension Division is the administrative agency through which are conducted the extension activities of all the University's departments. Within recent years, moreover, the Division has developed a specialized program of adult general and professional education unrelated to the work of the resident departments. Other educational services are being offered men and women whose formal schooling has ended but who still desire to continue their education regardless of higher academic awards. In meeting the demands of this group, the future of the University Extension Division as an agency for adult education holds the greatest promise of development.

Separate catalogues and announcements of the various services are published by the University Extension Division, including Correspondence Instruction, Audio-Visual Aids, etc.

Bureau of Art Extension

The Department of Art offers, through the cooperation of the Extension Division, extension class and correspondence courses in the history and appreciation of art. Institutes on art education are sponsored jointly with other state agencies and organizations. A lecture service is available. Circulating art exhibits may be secured on a loan basis. The annual North Carolina School Art Exhibition is conducted in cooperation with the Woman's College.

All of the special exhibitions in the Person Hall Art Gallery are open to the general public.

Bureau of Class Instruction

Extension courses in regular University subjects are offered in communities throughout the state. 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. The classes usually meet one evening a week for sixteen weeks. 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.

COURSES OFFERED

The Extension Division attempts to offer most of the courses listed in the University General Catalogue in any community where a sufficient number of people desire to enroll.

In order to conserve space, all other information and regulations concerning extension courses are omitted here but may be secured by sending a written request to the University Extension Division.

IN-SERVICE TEACHER EDUCATION

Working in close cooperation with the School of Education, the Division conducts a specialized and carefully arranged program for teachers now working in the schools of the state. The aim of this program is to improve instruction in the schools and to offer opportunities for the professional growth of teachers.

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.

Bureau of Community Music

The Department of Music offers the following services: (1) leadership for community sings; (2) formation of community choruses; (3) lectures on public school and community music; (4) piano, violin, organ, and chamber music recitals; (5) advisory service to schools; (6) concerts by the University Symphony Orchestra, the Symphonic Band, and the University Glee Clubs; (7) extension courses in music appreciation.

Bureau of Community Organization

The services of this bureau consist of consultation and assistance to North Carolina localities in the expanding field of community organization. Cities, towns, and rural communities alike are facing serious problems of community coordination and effective citizen action for community improvement. A number of localities already have community councils or councils of social agencies to help meet these needs.

Plans of the Bureau of Community Organization include the preparation of materials for local leaders, conferences and institutes, assistance in local fact finding, demonstration projects, a state-wide advisory committee on Community Organization, and collaboration with national agencies and with community organization programs in other states.

Bureau of Correspondence Instruction

All information and regulations concerning correspondence courses offered by the University are contained in the Catalogue of Correspondence Instruction issued separately. This includes information for those interested in adult education and those desiring courses for degree credit or teachers' certification credit.

The University offers correspondence courses to men and women in the armed forces through the United States Armed Forces Institute.

Bureau of Economic and Social Surveys

For years the staff in Rural Social-Economics of the University has been collecting data on social and economic conditions in North Carolina. This material is available through loans from the library, articles in *The University of North Carolina News Letter*, and bulletins which record the results of a number of county surveys. The *News Letter*, which is edited by this department, appears fifteen times each year.

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*.

Institute of Industrial Relations

Established in the spring of 1946, the Institute serves as the coordinating agency of the University and the Extension Division for the promotion and direction of educational programs in labor-management relations and programs of workers' education. Short courses, workshops, and institutes are conducted in cooperation with representatives of both management and labor organizations.

Bureau of Lectures, Short Courses, and Institutes

The University conducts a lecture bureau for the purpose of aiding schools, civic clubs, and other organizations in obtaining speakers and public forum leaders. Addresses for special occasions, such as school and college commencements, are also arranged upon application.

No fee for lecture service is charged, but the traveling and incidental expenses of the lecturer are to be defrayed by the organization for which the lecture is made. Lecture courses and public forum programs also may be arranged.

From time to time the University has held at Chapel Hill and at other places short courses or institutes for various organizations and groups. These consist of an intensive training program or course ranging in duration from one day to two weeks. The program is composed of a 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. Short courses have been offered to high school athletic directors, welfare workers, parents, realtors, photographers, bankers, insurance agents, members of the State Press Association, the North Carolina Medical Society, and other organizations.

In addition to those mentioned above, the Division will be glad to aid other organizations or groups in arranging for a short course, institute, special meeting, or convention.

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 subjects of sociology, community organizations, etc., are provided upon request. The Bureau Head serves as Consultant to the North Carolina Recreation Commission.

Bureau of School Relations

The University Extension Division, through this bureau, offers service to the high schools of the state by means of contests in debating, public speaking, and academic subjects, and through the agency of the North Carolina Scholastic Press Institute.

The North Carolina High School Debating Union is the medium through which assistance in debate is offered. This organization was established in 1912-1913. Approximately two hundred high schools

discuss some important question each year. The district winners come to the University to compete during High School Week in the final contest for the Aycock Memorial Cup.

The High School World Peace Study and Speaking Program was started during the school year 1946-1947. About two hundred schools have participated annually in the discussion of such subjects as: "Is World Government the Path to Peace?"; "How Can the United Nations Be Strengthened?"; "What is the Responsibility of the United States in World Affairs?"; and "How Can We Help to Build World Peace in the Atomic Age?"

The high school contests in academic subjects are conducted jointly by this bureau and by the University departments concerned. Academic contests are conducted in Latin, Spanish, French, physics, and mathematics. Approximately 250 high school students and faculty advisers come to the University each fall for the two-day sessions of the annual North Carolina Scholastic Press Institute.

Bureau of Visual Education

The services of the Bureau of Visual Education are available to all schools, colleges, civic groups, and other educational agencies on a non-profit basis. These services are designed primarily to aid elementary and secondary schools and colleges with the utilization and distribution of educational films, slides, and recordings correlated with the curriculum.

The Bureau of Visual Education is also prepared to offer advisory services and information on audio-visual materials and equipment. The film rental service is described in the *University Extension Bulletin*, Vol. XXXI, No. 1, "Audio-Visual Aids to Schools, Colleges, Churches, and Adult Study Groups."

COOPERATIVE SERVICES

Bureau of Business Services and Research

Extension of educational facilities of the University to business and industry is provided in cooperation 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 Bureau, through the Extension Division, services and sponsors the annual Bankers' Conference, the Southeastern Institute for Commercial Organization Executives, the Credit Bureau and Merchants Association Management Institute, the Realtors Institute, and others.

The Division, the Bureau, and the Institute of Industrial Relations cooperate in offering a summer program of short courses and workshops in industrial relations for personnel executives. Similar courses are given from time to time off the campus at various industrial centers. Similar programs are available in the fields of production management, accounting, sales management, business English, public speaking, statistics, finance, and insurance.

The Communication Center

Through radio-recording, motion pictures, graphic presentation, still photography, and eventually television, the Communication Center provides an *extension* of the University to the people of North Carolina. (See Communication Center, pp. 414-17.) By means of these communication tools much of the University's vast well of knowledge may be visualized, auralized, and distributed throughout North Carolina, providing, thus, a wider educational opportunity for those who wish to learn.

Library Extension Department

The aim of the Library Extension Department of the University Library is to encourage discussion of current political, social, and economic problems, as well as to assist in the study of good literature. Reference material is supplied for such study.

One section renders assistance with programs and reference material, usually of a literary nature, to women's clubs and study groups, for which service a small charge is made. Another section renders assistance to schools, both students and teachers, as well as to other individuals not organized in group study. This material is usually on current problems of a political, social, or economic nature.

North Carolina High School Athletic Association

The North Carolina High School Athletic Association is the agency through which assistance in athletics is offered. This association conducts state high school contests in football, basketball, baseball, track, swimming, six-man football, golf, and tennis. The high schools compete in districts for the honor of representing the eastern and western sections of the state, and the teams winning the sectional contests meet in the finals to determine state championships.

North Carolina Music Program

Dr. Norman Cordon, formerly of the Metropolitan Opera Association, is a member of the staff of the University Extension Division and available for cooperative services with schools, churches, colleges, and other community and state organizations. Assistance has been given to the North Carolina Symphony Society, the Carolina Folk Festival, and to the productions *The Lost Colony* and *Shout Freedom!* Dr. Cordon also serves as Consultant to the Carolina Opera School which opened in Raleigh in September, 1951.

North Carolina Symphony Society

Dr. Benjamin Swalin, Director of the Society and Conductor of the North Carolina Symphony Orchestra, is also Professor of Music in Extension. Society headquarters are located, through the courtesy of the University, in Swain Hall. The Director of Extension serves as Executive Vice-President of the Society.

Division of Health Affairs

In cooperation with the Division of Health Affairs, the Extension Division throughout the school year conducts postgraduate medical courses for physicians in various sections of the state. It assists in the administration of the Continuation Education Program of the School of Public Health. Plans are being made to organize extension programs for the School of Dentistry, the School of Nursing, and the University Hospital.

DIVISION OF HEALTH AFFAIRS

The Division of Health Affairs of the University includes the Schools of Medicine, Dentistry, Public Health, Nursing, Pharmacy, and the University Hospital and was established for the purpose of integrating and correlating the work of all the professional schools and the hospital in their teaching and research developments 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 entire State 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 representatives of the various professional schools concerned and the Director of the University 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., *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 University Hospital*

ROBERT ERVIN COKER, Ph.D., *Kenan Professor of Zoology*

ELIZABETH LOUANNA KEMBLE, R.N., Ed.D., *Dean of the School of Nursing*

EDWARD GRAFTON MCGAVRAN, A.B., M.D., M.P.H., *Dean of the School of Public Health*

THE ALL-UNIVERSITY DIVISION OF RECREATION

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

JOHN WILLIAM HARRELSON, M.E., LL.D., *Chancellor of the North Carolina State College of Agriculture and Engineering*

EDWARD KIDDER GRAHAM, 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

ETHEL L. MARTUS

OLIVER K. CORNWELL

HAROLD D. MEYER

THOMAS I. HINES

MEREB E. MOSSMAN

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 of Agriculture and Engineering, curriculum interest is centered around the

training of leaders for recreation in industry and rural life. The course interest at the Woman's College 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*

RHODA HUNTER WYNN, *Associate Director, Finance*

ROBERT F. SCHENKKAN, *Associate Director, Programming*

ROSS SCROGGS, *Associate Director, Production*

JOHN S. CLAYTON, *Assistant Director, Radio*

JOHN M. EHLE, JR., *Assistant Director, Motion Pictures*

*EDWARD FREED, *Assistant Director, Motion Pictures*

WILLIAM GULLEY, *Assistant Director, Photography*

SARAH ROSS HAMPTON, *Assistant Director, Photography*

MACK PRESLAR, *Assistant Director, Engineering*

CHARLES B. SEWARD, *Assistant Director, Motion Pictures*

JOHN E. YOUNG, *Assistant Director, Radio*

MARTHA BAILEY, *Secretary*

Advisory Board

RUSSELL MARVIN GRUMMAN, *Chairman*

GORDON GRAY, *ex officio*

JOHN HAROLD LAMPE

WILLIAM DONALD CARMICHAEL,

CHARLES FREMONT MILNER

JR., *ex officio*

CHARLES W. PHILLIPS

JOHN WILLIAM HARRELSON,

BESS N. ROSA

ex officio

EDWARD W. RUGGLES

ROBERT BURTON HOUSE,

I. O. SCHAUB

ex officio

CLAUDE EDWARD TEAGUE

EDWARD KIDDER GRAHAM,

EARL WYNN

ex officio

* Resigned March 17, 1952.

Communication Standing Committee

RUSSELL MARVIN GRUMMAN, *Chairman*

O. K. CORNWELL

GLEN HAYDON

ROBERT F. SCHENKKAN

W. A. OLSEN

J. L. MORRISON

J. C. LYONS

The Communication Center operates as an educational production service for the University and the state, and as a laboratory for students in radio, television, motion pictures, and photography. Guided by a board of advisors representing the University of North Carolina at Chapel Hill, Raleigh, and Greensboro, and by a Chapel Hill Standing Committee of the faculty, its main purpose is to extend the University and other significant educational projects of the community and state to the people of North Carolina. The means through which this purpose has been realized during 1951-1952 can best be described under those areas which make up the Communication Center.

Radio-Television-Recording

More than 425 separate disc and tape recordings were made last year, ranging from simple thirty-second studio-recorded spot announcements to lengthy remote broadcasts. The Communication Center originated material for all of the major networks, and made special recordings for use by the Voice of America and the Joint Chiefs of Staff.

Last year six programs and program series were produced: *The University Hour*, a series of thirteen half-hour programs, dramatized events in the lives of men and women of the University who have contributed to the welfare of their state and nation. Forty-six North Carolina radio stations carried this series, which, for the third consecutive year, received a First Place Award in the American Exhibition of Educational Radio Programs at Ohio State University.

A half-hour documentary, *In This Is Our Faith*, commemorating the inauguration of Gordon Gray as President of the University of North Carolina, was carried by most North Carolina stations.

The Meaning of the Word, based on contributions of North Carolina writers to the idea of freedom, was sponsored by the North Carolina English Teachers Association and broadcast by Station WPTF in Raleigh.

The Silent Siren, a series of thirteen fifteen-minute programs, produced for the Resource-Use Education Commission of North Carolina, was heard on eighty-one radio stations last year. This series dramatized the conservation and wise use of all of North Carolina's natural, social, and human resources.

A series of thirteen talks on Communism vs. Democracy entitled *Thought Defense* and produced in cooperation with Dr. Louis Katts-off of the Department of Philosophy, was heard over Station WDNC in Durham. *Who Goes There, Friend or Foe*, a series of dramatizations based on these talks, is being prepared.

The Communication Center has received approval from the FCC to construct FM Station WUNC, the formal opening of which is planned for the fall of 1952. The University of North Carolina at Chapel Hill also has been tentatively assigned television VHF Channel 4, and plans are being discussed for the development and implementation of this new medium.

Photography

The Photographic Laboratory of the Communication Center serves the photographic needs of the various departments and divisions of the University. Last year, the Laboratory developed 26,182 prints, photographed and printed 5,126 identification pictures, exposed 5,156 negatives, produced 1,416 slides, and copied 812 photographs.

Motion Pictures

The Communication Center makes its services available to all state agencies, to departments of the University, to colleges, schools, and non-profit organizations in the state for the production of motion pictures on subjects of educational interest and value to the people of North Carolina. Maintaining the highest professional standards, these films are written, directed, recorded, and edited by the Communication Center staff.

North Carolina—Variety Vacationland, produced for the North Carolina Department of Conservation and Development, Division of Advertising, won a First Award in the Greater Boston Film Festival. Thirty prints of this twenty-minute color and sound travel film are currently in use and the production has been highly praised by school officials, officers of state agencies, and network television executives.

"This varied and abundant state of North Carolina is a good place to live" is the theme of a thirty-minute documentary motion

picture in color entitled, *North Carolina—The Tar Heel State*, also produced for the North Carolina Department of Conservation and Development.

In the Name of Freedom, a twenty-two-minute sound film in color, is the story of Chapel Hill and the University.

As Others See Us is a twenty-minute black-and-white sound film dealing with the subject of safety in the textile industry. It was produced for the North Carolina Industrial Commission.

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. One such project, financed by the United States Navy Special Devices Center and carried on in cooperation with the Institute for Research in Social Science, has been completed. Two additional proposals are now before the Office of Naval Research and the United States Department of State.

THE UNIVERSITY TESTING SERVICE

WILLIAM D. PERRY, Ed.D., *Director*

JAMES W. LITTLE, M.S., *Associate Director*

PHINNEY CAMPBELL, A.B., *Reading Instructor*

FRANCES S. O'TUEL, A.B., *Vocational Counselor*

MILDRED F. WOODWARD, M.A., *Psychometrist*

CLARA S. PATTY, *Librarian*

HELEN C. JOHNSON, A.B., *Secretary*

VIRGINIA M. REICHELT, *Secretary*

PAUL IRVINE, M.A., *Graduate Assistant*

IAN G. GILL, A.B., ETHEL M. NASH, M.A., J. THOMAS WEST, A.B.,
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. At the conclusion of the veteran program in the latter part of 1951, more than 7000 veterans, many of them partially disabled, had been tested and counseled. As the result of a decision by the University to extend these same services without charge to students, vocational counseling has continued to be one of the major functions of the University Testing Service. By

the end of 1951 more than 2500 University students had 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 Service has engaged in several closely related activities. A remedial reading program is operated for the benefit of University students who wish to improve their reading skills. Applicants are administered diagnostic tests and a suitable program of reading instruction is planned for each individual. Speed of reading has shown an average improvement of over 100 per cent, with usually substantial improvement in comprehension. 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 nine 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.

THE FOLKLORE COUNCIL

RUSSELL MARVIN GRUMMAN, *Chairman*
ARTHUR PALMER HUDSON, *Vice-Chairman*
ROBERT WHITE LINKER, *Secretary-Treasurer*

*Executive Committee

GLEN HAYDON
ROBERT BURTON HOUSE
NORMAN GORDON
JOHN VOLNEY ALLCOTT

* The three general officers named above are members of the Executive Committee.

***Advisory Board**

AMOS ABRAMS	RICHARD JENTE
GORDON W. BLACKWELL	JOHN ESTEN KELLER
GERTRUDE CARRAWAY	PHILLIPS RUSSELL
JOSEPH D. CLARK	SAMUEL SELDEN
NORMAN E. ELIASON	JAMES STREET
JOHN GILLIN	CRATIS D. WILLIAMS
PAUL GREEN	GEORGE WILSON
ISAAC GARFIELD GREER	MRS. L. A. WILSON
JOHN HARDEN	

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 need for a comprehensive organization to unify and stimulate membership of the former Institute of Folk Music.

The Institute of Folk Music

GLEN HAYDON, *Director*

JAN PHILIP SCHINHAN, *Associate Director*

Advisory Board

BASCOM LUNSFORD	HELEN ROBERTS
PAUL GREEN	CHARLES SEEGER
GEORGE HERZOG	LAMAR STRINGFIELD
GEORGE PULLEN JACKSON	CHARLES G. VARDELL
JOHN POWELL	

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.

* All members of the full Executive Committee are members of the Advisory Board.

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.

INSTITUTE OF GOVERNMENT

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HENRY WILKINS LEWIS, A.B., LL.B., *Research Professor in Public Law and Government*

VERNON LEE BOUNDS, LL.B., *Associate Research Professor in Public Law and Government*

WILLIAM McWHORTER COCHRANE, A.B., LL.M., *Associate Research Professor in Public Law and Government*

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DONALD BALES HAYMAN, M.A., *Associate Research Professor in Public Law and Government*

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J. SHEPARD BRYAN, JR., B.S., LL.B., *Assistant Research Professor in Public Law and Government*

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CLIFFORD BRUCE THOMAS, B.S., LL.B., *Assistant Research Professor in Public Law and Government*

*MASON PAGE THOMAS, B.S., LL.B., *Assistant Research Professor in Public Law and Government*

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C. A. HASTY, *First Vice-President of the N. C. Association of County Commissioners*

F. KNOX WATSON, *Past President of the N. C. Association of County Commissioners*

Representing the City and Town Governing Boards:

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JOSEPH D. TALLY, JR., *First Vice-President of the N. C. League of Municipalities*

BENJAMIN CONE, *Past President of the N. C. League of Municipalities*

* Resigned February 1, 1952.

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. Its advisory board consists of three city officials representing the city and town governing boards, three county officials representing the county governing boards, three members of the North Carolina Senate, three members of the North Carolina House of Representatives, and four state officials representing the state government. This governing board functions under the chairmanship of Chief Justice William Augustus Devin, of the Supreme Court of North Carolina, who has been chairman of the Institute of Government Executive Committee from the beginning.

The Institute of Government unites public officials, private citizens, and students and teachers of civics and government in a systematic effort 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 effort—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 heretofore 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 co-operating 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.

THE INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE

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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 somewhat analogous to that of the schools and major divisions of the institution. Its research professors and research associates have the rank of professors and associate professors in the University, with all their privileges and obligations. Approximately one-half to two-thirds of their time is allocated to research with the remainder devoted to teaching in one of the social science departments. A Board of Governors is composed of representatives from the University administration, the social science departments, and other agencies within the University with which the Institute cooperates. This body determines basic policies, with details of administration delegated to the Director and staff. An Executive Committee of five members, elected from the Board of Governors, acts for the Board between meetings and handles certain financial details for the Board.

Regionalism and the achieving of an understanding of the state and the South have been dominant themes in the research program.

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 and plan for a coordinated and integrated research program; (2) to discover and develop research personnel and to serve as a training center for research and planning personnel and for teachers, achieving this purpose in collaboration with the several social science departments of the Graduate School; (3) to use a regional framework for developing methods of empirical research within a theoretical context; (4) to serve as a center for cooperation with other agencies toward the development and testing of procedures for making this research of more functional value.

The research staff of the Institute is composed of research professors, research associates, research fellows, and research assistants in anthropology, economics, history, political science, public administration, public health, regional and city planning, social psychology, sociology, and statistics. Research fellows are mature graduate students equipped by training and experience to carry on special research assignments, usually under individual or committee direction. Graduate research assistants serve on annual appointment and generally carry two-thirds of a regular graduate study program. They assist in Institute research projects or serve in staff capacities under supervision, thereby securing valuable experience and training. In addition, part-time arrangements are made with other individuals, usually on the University faculty, in accordance with the research programs developed from year to year.

In cooperation with the University of North Carolina Institute of Statistics, the Institute sponsors a Social Science Statistical Laboratory with Daniel O. Price as director, and George E. Nicholson, Jr., as associate director. With its services available to all social science faculty members, the laboratory (1) advises on all phases of quantitative methodology, using consultation from the staff of the Institute of Statistics; (2) provides editing, coding, and computing services; (3) serves in a liaison capacity with the sorting and tabulating units of the Institute of Statistics; (4) conducts research designed to develop and test new quantitative concepts and techniques.

The Graphic Arts Laboratory of the Institute, in the charge of an experienced graphic arts specialist, is designed not only to provide some instruction in this field and to serve the needs of the Institute, but also to make available such services for all University staff, departments, and agencies.

The Central Office, in the charge of the Assistant Director, coordinates secretarial and clerical services, personnel policies, fiscal operations, purchasing, travel arrangements, and editing and preparation of research manuscripts for publication.

The studies and materials of the Institute may be grouped in the following fields: general regional culture and economy; population; local government and administration; historical backgrounds; communication media; social-industrial relations; crime and criminal justice; social anthropology; social institutions; housing; community organization; public welfare; human geography; regional, state, and local planning; research interpretation. The special issue of *Social Forces* (March, 1945) commemorating the Sesquicentennial of the University carried, on pages 309-28, a complete chronological listing of publications and monographs sponsored by the Institute from 1924 through 1944. Annual additional mimeographed listings bring the record up-to-date.

The Institute is housed on the third and fourth floors of Alumni Building. Facilities for staff and graduate students include, in addition to the Central Office and individual offices, a statistical laboratory, a drafting room, the departmental library of Sociology, Anthropology, Planning, and Social Work, and the large Laboratory-Workshop. This Laboratory-Workshop serves students and others as an exhibit hall, reference room, library, and general workroom in Southern regional development. Wall exhibits depict various phases of world, American, and Southern regions, and community development. Materials are available for study and research. The room is equipped for the use of and experimentation with audio-visual aids. Classes, workshops, and conference groups meet in the Laboratory-Workshop.

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.

THE INSTITUTE OF LATIN AMERICAN STUDIES

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FEDERICO G. GIL, *Assistant Director; Associate Professor of Political Science*

MABEL BARRETT JONES, *Cataloguer of Latin American Materials*

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CLIFFORD P. LYONS, *Dean of the College of Arts and Sciences*

The Institute of Latin American Studies, made possible through a grant from the Carnegie Corporation, brings together the courses relating to Latin America offered in various departments 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, p. 347).

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 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 a grant from the Rockefeller Foundation. This collection is now being expanded through the grant from the Carnegie Corporation. With this grant a considerable amount of recording equipment has been secured for intensive language instruction in Spanish and Portuguese.

THE INSTITUTE OF STATISTICS

GORDON GRAY, A.B., LL.B., LL.D., *President of the University of North Carolina*

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of the University of North Carolina at Chapel Hill*

JOHN WILLIAM HARRELSON, M.E., LL.D., *Chancellor of the North Carolina State College of Agriculture and Engineering*

EDWARD KIDDER GRAHAM, Ph.D., *Chancellor of the Woman's College*

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HAROLD HOTELLING, Ph.D., *Associate Director*

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Department of Mathematical Statistics Chapel Hill

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JAMES PACHARES, B.S. (Akron), *Research Assistant*

MORRIS SKIBINSKY, M.A. (North Carolina), *Research Assistant*

PAUL NOBLE SOMERVILLE, B.Sc. (Alberta), *Research Assistant*

ALFRED DESCLOUX, *Mathematicien diplome de l'Ecole Polytechnique Federale (Swiss Institute of Technology), Fellow*

SIGEITI MORIGUTI, Kogakusi (Tokyo Imperial University), *Fellow*

Department of Experimental Statistics Raleigh

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CHARLES O. GARDNER, Ph.D. (North Carolina State), *Assistant Statistician*
THEODORE W. HORNER, M.S. (North Carolina State), *Assistant Statistician*
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JAMES C. SENTZ, B.S. (Pennsylvania State), *Graduate Assistant*
SIDNEY WEINER, M.S. (New York University), *Graduate Assistant*

Department of Biostatistics

BERNARD GEORGE GREENBERG, Ph.D. (North Carolina State), *Associate Professor of Biostatistics in the Institute of Statistics and the School of Public Health, Chapel Hill*

WILLIAM FUTTER ELKIN, M.S., M.S.P.H. (Michigan), *Graduate Research Assistant*

ROBERT GILBERT HOFFMAN, M.S. (Michigan), *Graduate Assistant*

HARRY SMITH, JR., M.A. (Delaware), *Graduate Assistant*

The Institute of Statistics began with the establishment in 1941 of the Department of Experimental Statistics at the North Carolina State College of Agriculture and Engineering at Raleigh. From the beginning this department has been occupied with research at least as much as with teaching. It has collaborated extensively with other departments and with government research agencies in the design of agricultural and other experiments, as well as in calculation and interpretation of the results. This activity has continued on an enlarged scale and has been extended to a greater variety of problems and research activities involving applied statistics. In the course of this work, as in the constantly broadening applications of statistical methods elsewhere, many problems have been encountered which pertain not merely to the particular situations which gave rise to them but to a diversity of fields. 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 pre-history 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.

The recognition that problems of general statistical theory need the attention of specialists led to the establishment of the Department of Mathematical Statistics at Chapel Hill in 1946. This is a department of the Institute of Statistics, which was at the same time established by the Trustees as an all-University organization, and is also a department of the University, offering instruction primarily to graduate students. It supplies basic preparation for students aiming to teach statistics or to become statisticians on high levels. The training of such students includes work in both departments of the Institute of Statistics, in the Department of Mathematics, and in other University departments. Research in the theory of statistics is a leading concern of this department.

An extensive mathematical research project on Multivariate Statistical Analysis, sponsored by the Office of Naval Research, is carried on at Chapel Hill. This provides employment, training, and scope for exercising mathematical ingenuity for a number of advanced students.

The Institute of Statistics has collaborated since 1949 in the work of the Department of Biostatistics at the School of Public Health at Chapel Hill. In 1950 a Social Science Statistical Laboratory was established in Chapel Hill jointly by the Institute for Research in Social Science and the Institute of Statistics.

The Institute of Statistics aims to advance the theory and technique of statistics, not only through the research of its members and academic courses of lectures, seminars, and laboratory work, but also in many other ways. Frequent opportunities arise for employment of advanced students in statistical work, under the supervision of members of the faculty of the Institute, on cooperative projects for agricultural and other research. Public lectures by distinguished leaders in the field are held from time to time..

Summer sessions are held in certain years, with prominent leaders of statistics in the temporary faculties. Informal conferences, collaboration, and discussion on statistical problems are encouraged by definite measures. Members of the Institute of Statistics faculty participate extensively in the work of national and international statistical organizations and related scientific societies as presidents, vice-presidents, council and committee members, editors of journals, and referees. At the more important statistical meetings the Institute of Statistics of the University of North Carolina is represented by members of its staff, who present original research and prepared discussion, preside over sessions, take part in deliberations, and serve as officers.

Support of the work of the Institute is provided partly by the University, partly by the sponsors of various research projects, most of which are agencies of the federal government, and partly by a grant from the General Education Board.

Courses in mathematical statistics are listed in Part IV of this catalogue. A separate and fuller announcement is published covering the work of the Institute of Statistics both at Raleigh and at Chapel Hill.

Mathematical Statistics Fellowships

Two fellowships for advanced graduate students in Mathematical Statistics are available. Applications and supporting papers, including transcripts of academic records, must be in the hands of the Dean of the Graduate School on March 1 of the year in which tenure of the fellowship is to begin. The stipend is in each case \$1350 a year, together with free tuition. These fellows must have completed substantial studies in higher mathematics and should usually have had at least a year of graduate study in mathematical statistics.

PERSON HALL ART GALLERY

JOHN VOLNEY ALLCOTT, *Director*

GEORGE KACHERGIS, *Education Director*

LYNETTE WARREN, *Curator*

ARCHIE DANIELS, REBEKAH WALSTON, GEORGE BIRELINE, *Assistants*

Person Hall was built in 1795 as the University chapel and finished in 1797 by gift of General Thomas Person. It was restored in 1937 by government agencies and through the efforts and gift of Mrs. Katharine Pendleton Arrington. It is open free daily with a program of exhibitions and gallery talks.

Exhibitions, September, 1950—September, 1951, were: Rental Collection of Reproductions; Young North Carolina Artists; Modern Buildings for Schools and Colleges; The Mexican Collection; Painting Toward Architecture; Paintings of University of North Carolina Graduate Students in the MACA Program; Theatre From Ritual to Broadway; Southeastern State Universities Art Faculty Exhibition; North Carolina School Art Exhibition; Twentieth-Century European Paintings; Virginia Dortch, Paintings; Russell Arnold, Paintings; Ann Garson, Paintings.

Gallery Talks, September, 1950—September, 1951, were given by: Serge Chermayeff, John Allcott, Rebekah Walston, Helen Lowenthal, George Kachergis, Robert Howard.

On permanent exhibition is the W. W. Fuller Collection of American and European Painting.

Person Hall Art Reference Library is housed in the gallery. The Library includes the Weil Collection of photographs of Italian Renaissance art, the Jacocks Collection of American prints, color reproductions of old and modern masters, and the Picture Rental Collection of framed color reproductions.

The Friends of Person Hall is a public organization founded in February, 1941, to help in the development of the arts in North Carolina by working with the Department of Art. Officers for 1951-1952, are:

MISS FRANCES MACKINNON, *Chairman*

DR. G. H. CUTTEN, *Vice-Chairman*

MRS. JOHN SCIALLY, *Secretary and Treasurer*

Executive Board

MRS. K. P. ARRINGTON

Honorary Life Member

MR. GEORGE LURCY

Honorary Life Member

MR. JOHN ALLCOTT, *ex officio*

DR. J. W. LASLEY

MRS. W. R. WALSTON

MR. WALTER S. SPEARMAN

MR. JAMES WEBB

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THE CAROLINA PLAYMAKERS

SAMUEL SELDEN, *Director*

HARRY E. DAVIS, *Associate Director*

JOHN W. PARKER, *Assistant Director and Business Manager*

IRENE SMART, *Costume Director*

LYNN GAULT, *Technical Director*

KAI JURGENSEN, THOMAS PATTERSON, FOSTER FITZ-SIMONS, *Assistant Directors*

CHARLES KELLOGG, EUGENE GRAVES, ANNA GRAHAM, RICHARD SNAVELY, *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

five major productions of old and modern dramas, classical and popular, and six experimental productions of new scripts, both one-act and full-length. Two major productions and two 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* and *Unto These Hills*.

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 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

GORDON WILLIAMS BLACKWELL, *Chairman*

*GEORGE ALEXANDER HEARD, *Chairman*

The John Calvin McNair Lectures

This lectureship was founded through a bequest, made by the Reverend John Calvin McNair of the Class of 1849, which became available to the University in 1906. In the year 1908 the series of lectures was inaugurated by Francis H. Smith, Emeritus Professor of Physics at the University of Virginia. The plan and purpose of the lectures are stated in the will, which reads: "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

* Beginning January 1, 1952.

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

During the year 1914-1915 an unendowed lectureship on American Citizenship was established by the University. The first incumbent was former president William Howard Taft, who lectured on "The Presidency: Powers, Duties, Obligations, and Responsibilities." Since that time this foundation, named the Weil Lectures on American Citizenship, has been permanently established through the generosity of the families of Mr. Sol Weil and Mr. Henry Weil, of Goldsboro, North Carolina.

THE UNIVERSITY LIBRARY

CHARLES EVERETT RUSH, *Director*
OLAN VICTOR COOK, *Assistant Librarian*

The Administrative Board

SUSAN GREY AKERS	WILLIAM WHATLEY PIERSON
RICHMOND PUGH BOND	CHARLES E. RUSH, <i>Chairman</i>
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FLETCHER MELVIN GREEN	WILLIAM MARVIN WHYBURN
STURGIS ELLENO LEAVITT	JOHN BROOKS WOOSLEY

Staff Heads of Departments

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GEORGIA HICKS FAISON, *Reference Department*
ISAAC THOMAS LITTLETON, *Circulation Department*
JAMES WELCH PATTON, *Southern Historical Collection*
WILLIAM RUSSELL PULLEN, *Documents Department*
NELLIE ROBERSON, *Library Extension Department*
GENEVIEVE YOST SCHEER, *Serials Department*
MARY LINDSAY THORNTON, *North Carolina Collection*
LENA MAE WILLIAMS, *Order Department*
FRANCES LYDIA YOCOM, *Catalogue Department*

The University Library contains more than 582,000 volumes. Most of its holdings are housed in the Main Library building, which in 1952 will provide doubly increased facilities for reading, study, and investigation, as well as book capacity and service activity. Approxi-

mately 25,000 titles are added annually by purchase, gift and exchange. General reference and bibliographical resources are strengthened by 115,199 bound periodicals, over 5,000 current serials, and exceptional files and film reproductions of federal and state publications.

Special collections of importance include: The Hanes Foundation for the Study of the Origin and Development of the Book; the Southern Historical Collection of more than 2,000,000 manuscripts; the North Carolina Collection of 125,000 items relating to the state; together with unusual collections of American drama, Spanish drama, Shakespeare, Raleigh, Johnson, Dickens, Cruikshank, Shaw, Wolfe, Folklore, Latin American studies, Southern literature, Romance languages, World War I, maps, prints, graphic arts, city and regional planning, and books by and about the Negro. The Library has extensive bibliographical facilities, including several depository catalogues of other libraries. Frequent messenger service and other cooperative relationships with the libraries of Duke University, State College, and Woman's College make the holdings of these great collections exceptionally available. Active microfilm service miraculously brings all other libraries near at hand.

Other facilities for graduate study and research include special reading rooms, seminar and discussion rooms, 511 individual carrels located in the air-conditioned bookstack and twenty-nine individual studies for writers, as well as the special collections serviced in the fifteen departmental libraries assigned to Art; Botany; Chemistry; Economics and Business Administration; Geology; Institute of Government; Law; Library Science; Mathematics and Physics; Medicine and Public Health; Music; Pharmacy; Psychology; Sociology, Anthropology, and Planning; and Zoology.

THE UNIVERSITY NEWS BUREAU

ROBERT WILSON MADRY, A.B., B.Litt., *Director*

JAKE WADE, A.B., *Associate Director*

ELIZABETH DIXON NAPIER, B.S., *Associate Director*

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 town and campus news to the several press associations, to the newspapers in North Carolina and throughout the country, and to the radio stations.

The main offices of the News Bureau are in Bynum Hall. The sports division, with Jake Wade in charge, is in 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.

Robert W. Madry was the first director of the University News Bureau which, when established, consisted of a desk and typewriter in Business Manager Charles T. Woollen's office in the Alumni Building.

Mr. Madry resigned a year later to enter the Columbia University School of Journalism. After doing newspaper work in Paris and New York, following graduation from Columbia, he returned in 1923 to become director of the News Bureau for the second time and has been in charge since then. Lenoir Chambers, now editor of the *Norfolk Ledger Dispatch*, was director of the News Bureau from 1919 to 1921, and Louis Graves, now editor of the *Chapel Hill Weekly*, was director and professor of journalism from 1921 to 1923.

There has never been any censorship by the University Administration of news distributed by the News Bureau.

THE UNIVERSITY OF NORTH CAROLINA PRESS

LAMBERT DAVIS, *Director*

PORTER COWLES, *Assistant Director*

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RUSSELL MARVIN GRUMMAN

GEORGE ALEXANDER HEARD

MILTON SYDNEY HEATH

STURGIS ELLENO LEAVITT

HUGH TALMAGE LEFLER

JOHN TETTEMER O'NEIL

H. ARNOLD PERRY

ROBERT ARMSTRONG PRATT

CHARLES BASKERVILL ROBSON

CORYDON PERRY SPRUILL

RUPERT BAYLESS VANCE

LOUIS ROUND WILSON

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 twenty to thirty 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 James Sprunt Studies in History and Political Science*; *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*.

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 Ryer-son 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

ROBERT ERVIN COKER, Ph.D., Sc.D., *Chairman of the Executive Committee*

WILLIAM ANDREW ELLISON, JR., M.A., *Director*

Advisory Council

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JOHN LINDSAY MOREHEAD

HUGH MORTON

CLYDE POTTER

GEORGE R. ROSS

* Died, January 24, 1951.

PAUL EDMONDSON SHEARIN
 HARDEN FRANKLIN TAYLOR
 CLAUDE E. TEAGUE

WILLIAM S. WELLS
 GORDON C. WILLIS
 REX SHELTON WINSLOW

Executive Committee

ROBERT ERVIN COKER, *Chairman* HUGH MORTON
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Research Staff

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 ALPHONSE F. CHESTNUT, Ph.D., *Specialist in Oyster Culture and Associate Professor*
 EUGENE WOODROW ROELOFS, Ph.D., *Specialist in Hydrobiology and Associate Professor*
 WILLIAM EARL FAHY, Ph.D., *Biologist, Oyster Investigations*
 AUSTIN BEATTY WILLIAMS, Ph.D., *Biologist, Shrimp Investigations*
 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. It is operated by the University with the collaboration of the Department of Conservation and Development. 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 discharge, 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 predecessor 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.

More recently, the University has 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 has 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. The legislature of 1951 made appropriations to the University for the operation of the Institute for the biennium 1951-1953.

Meantime, 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 395).

THE MOREHEAD BUILDING AND PLANETARIUM

Gift of John Motley Morehead (Class of 1891), the Morehead Building contains the Memorial Rotunda, Faculty Lounge, University Room, and a dining room and kitchen 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 other valuable works of famous artists. Two large galleries flanking the Rotunda provide space for temporary exhibitions.

The scientific portion of the building contains a scientific exhibit room, the astronomy classroom, and one of only two large orreries in the world, as well as the sixth Zeiss Planetarium installation in the Western Hemisphere, the only one in the world owned and operated by a university. A realistic reproduction of the sky as seen by the unaided eye is projected by the great instrument onto the sixty-eight-foot perforated stainless steel dome of the chamber, in which are located in concentric circular rows 490 seats for visitors. Spectacular demonstrations presented since the Morehead Planetarium opened on May 10, 1949, have included "Star of Bethlehem," "Trip to the Moon," "Easter, the Awakening," and many others. Public demonstrations are given every evening and at Saturday and Sunday matinees, and the program is changed every three or four weeks. In the first two years of operation, more than 300,000 visitors saw performances in the Morehead Planetarium.

The equipment is also used for University classes in astronomy and navigation. Special week-day showings are arranged for public school children of North Carolina and Virginia.

Part Six

DEGREES CONFERRED

DEGREES CONFERRED AUGUST 30, 1950

BACHELOR OF ARTS

James Augustus Austin
Robert Edgar Ball, Jr.
Harrison Idol Barbee
Robert Edward Lasater Barnes
William Russell Batchelor
Herbert Maurice Bateman
William Scott Blalock
Franklin Oakes Brantley
McIver Monroe Brooks
Willard Lee Burrage
Leonard Archibald Butt
Phillip Augustus Cain
Gene Frances Caraher
Joyce Elaine Checkner
Samuel Johnston Clark, Jr.
Donald R. Connor, Jr.
Andrew Cornish, Jr.
Forrest Miller Covington
Edward Wilton Cox
William Archibald Crump
James Washington Curtis, Jr.
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George Frederick Deans
Joseph Leo DeWalt
William Thomas Dixon, Jr.
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Emil Earl Eason
William Maxwell Edney
Ann Marshall Emmert
Robert Allston Eversman
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Georgia Wallace Fox
Cecil Gant, Jr.
John Hendrix George
Robert Flournoy Goodwin, Jr.
Jane Williams Gower
Frances Powe Grainger
Lois Mary Groves
Erle Foster Hall
William Hannah, III
Wingate Edmund Hannah
John Webster Hardwicke
James Porter Hendrick, Jr.
Perry Cleveland Henson
Henry Hoyt Hobbs
Rothschild Halstead Holden
James Womble Hoyle
Margaret Greenlee Hubbard
James L. Huggins
Gloria Ann Jackson
Joseph McCraw James
Ira Kimbrell Johnson
Elizabeth Cardwell Joyce
Katherine Hennessee King
Irvin Emmitte Lawrence, Jr.
Gladys Etta Levenson
Costin Lindsay
Thomas Allen Little, Jr.
Marvin Ellis Luther
Charles McKinley Maness, Jr.
Carlyle Janet Markham (with Highest honors in French)
John Newton McCall
Claude Frederick McCuiston
John William McKeel
Roy Bowman McKnight, Jr.
Daniel Henry McLaughlin
Mary Anne McNeely
James Blizzard Mead
Robert McNair Mebane
Robert Stanley Messner
Charles Jasper Miller, Jr.
Samuel Woodie Miller, Jr.
John Small Neblett
Kemp Pruden Nixon
John Harvey Oliver, Jr.
Albert Eugene Partridge, Jr.
Fred Samuel Patterson, Jr.
Barbara Ann Payne
John Lee Richardson, Jr.
Paul Livingston Ritch, Jr.
Hosea Weaver Rodgers
William Vernon Rogers
Ivon Cleveland Rolader, Jr.
Conway Joel Rose
John Crawford Safrit
Herschell Francis Snuggs
Anne Spake
Douglas Conrad Stallings
John Ecklin Taylor
Rawleigh William D. Taylor, Jr.
John Barnes Temple
Lloyd Malcolm Tyndall
Charles Henry Ufen
Margaret Kokosko van de Velde
Carroll Washington Walden, Jr.
Edward Kuydendall Washington
James Herbert Wilder
Carl Michael Williams
Ernest Frank Wilson
Kathryn Charlotte Wilson
Ferne Hughes Winborne
Jean Anderson Yeatman

BACHELOR OF ARTS IN JOURNALISM

Thomas Hugh Alston, Jr.	Billy Marvin Holland
John Patrick Brady, Jr.	Louise Murphy Moore
Robert Lee Brooks	Carolyn Tuck Sechrist
Edward Callohill Burks	Hugh Jerome Viverette
Steve Bland Dolley, Jr.	Thomas Donnell Wharton
Wiltshire Griffith, Jr.	Carl Eugene Worsley
Sara Carolyn Harrill	

BACHELOR OF SCIENCE IN CHEMISTRY

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Carrie Blanche Dixon	William Connie Mathis, Jr.
Everett Leroy Huffman	Reginald Lyon Whitaker, Jr.
Eugene Worth Jones	

BACHELOR OF SCIENCE IN GEOLOGY

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William Gary Hooks	Charles Cecil Todd, Jr.

BACHELOR OF SCIENCE IN MATHEMATICS

Leon Frank Morgan

BACHELOR OF SCIENCE IN MEDICINE

Claude Alfred Smith

BACHELOR OF SCIENCE IN PHYSICS

Thomas Roth Byran	Robert Fulton McLaughlin
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Thomas Hill Clayton	Robert Brook Rockholz
Arthur Christian Dietzel	Jo Ann Stewart
William Doran, Jr.	Woodrow Hillis Westall

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Donn Louis Dieter	Bernie Maurice Sheffield
James Jerome Pence, Jr.	

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Walton White Andrews	Robert William Edwards
George Kenneth Archer	Robert Starnes Ehle
Lewis Martin August	Robert Duane Elf
Walter Edwin Baker	Charles Lacy Ezell, III
Cecil Herbert Barnes	Robert Sheldon Feldman
Welden Cushman Bayliss	Alvin Lee Ferguson
Paul Edward Beaver	Richard Tillman Fountain, Jr.
Albert John Begendorf	Gilmore Carleton Freeman
Aroas Eugene Bennett, Jr.	George West Furches
Robert Roy Beyer	Fletcher David Garrard
Donald Gordon Black	Albert Francis Garrou
Frank Cuthrell Boseman	Samuel Mallette Gattis
William Earl Brewer	Lucius Robert George, Jr.
John David Karnazes	Curtis Claunch Gillespie, Jr.
Mahlon Day Kenny	Charles Floyd Gipple
Carl Willhelm Bissenger Korb, Jr.	James Zachariah Godwin
Gerald Burdette LaSuer, Jr.	James Rogers Gooch
John Thomas Lindley	Porter O'Henry Gray
James Wingate Lindsay	Roy Scott Gunter
Robert Earl Lock	Fred Grady Hahn, Jr.
Wortham Clarence Lyon, Jr.	Dela Fletcher Harris, III
Francis Kirk Manning	Wallace Gordon Harris
Richard deYarman Manning	John Irvin Harrison
David James McCall	John Ray Hensley
Roland McClamroch, Jr.	James Robert Hickman
Hal Ashley McCullers, Jr.	Luther Elmer Hollomon, Jr.
Gibbon Elliott McNeely	Asa Baker Hollowell, Jr.
Clarence Bratton Mendenhall	Clarence Marvin Hunt, Jr.
Jesse Mardred Mercer, Jr.	David Justin Hutton
Sanford Miller Brown	Edwin Barry James
Clayton DeLamar Bullock	Clyde Bradley Johnson
Andrew Judson Burgess	William Monroe Johnson, Jr.
Donald Breckenridge Carmichael	Eugene Reed Johnston
James Robert Cherry, Jr.	John William Jomp, Jr.
William Donald Childers	George William-Michael
Edward Clark	James David Mills
Neill McKeithen Clegg	John Robert Montgomery, Jr.
Billy Gray Clodfelter	William Tracy Moore
Stanley Cohen	William Preston Morse
Wade Thomas Cooper	Charles Donald Munroe
Clyde Edwards Corbett	Arthur Edward Murphy, Jr.
Robert Stevens Couch	Jesse Frank Newton
James Thomas Covington	John Thorne Nicholson
Richard Sheffield Covington	William Hubert Nixon
Charles Fowler Cowell, Jr.	Herman Leroy Noble
James Alton Croom	Albert Womble Oakes, III
Stanley Collins Culbreth, Sr.	James Graham Oates, Jr.
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Roy Melmoth Davidson, Jr.	Louis Wood Otterbourg
John William Dunham	Reece Alexander Overcash, Jr.
John Jennings Dunlap	Herman Grady Phillips, Jr.

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William McClellan Rawls	William Hobbs Sutton
Bobby Bowden Ray	Alfred Tyson Taylor
Robert Randolph Richardson	Cary Buxton Taylor, Jr.
Norman Graham Ridenhour	Sanford Webb Thompson, III
Paul Joseph Rizzo	Joseph Earl Turner
Clyde Buchanan Rosser	Thomas M. Urquhart
Edward Wray Russell	Jack Kurfees Ward
Elbert Stephen Rutledge	Curtis Elwood Watkins
Joseph Vernon Ruzicka, Jr.	Camest Lotorge West
Robert Glasgow Sanford	James Randolph Williams
Joseph Melvin Shafer	Joseph Speed Williams
William Henry Skeels, III	Robert Wilton Williams
Dan Chewing Smith	Arnold Landreth Wilson
Albert Gilmer Snider	John Aloysius Wolhar
Jack Webster Sparrow, Jr.	Ivan Earl Woodruff
Edwin Clark Stephenson	Wilson Bruce Wright
Philip McGarvey Stonestreet	John King Woody
Jerry Dalton Strader, Jr.	Walker Yeatman Worth, Jr.
Francis Marion Stroock, Jr.	Kenneth Van Wyatt
Leon Sugar	Francis Allen Yancey
Percy Watson Suggs, Jr.	Frank Ervin Young, Jr.

BACHELOR OF SCIENCE IN PHARMACY

Herman Wright Lynch	Waits Altemus West
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John Pressly Kennedy, Jr.	

BACHELOR OF SCIENCE IN LIBRARY SCIENCE

Myrtle Landen Beach	Jane Elizabeth Wright
Bertha Inez Wilson	

CERTIFICATE IN PUBLIC HEALTH NURSING

Phoebe Jane Bibb	Helen Jones Majette
Lida Grey Bissette	Margaret Louise Morgan
Mary Whitten Christopher	Myra Gibson Mott
Maude Lee Cleveland	Velma Eileen Nall
Marion Lemons Cooke	Blondell Watson Nichols
Jessie Evelyn Davidson	Annie Eudelle Parker
Marion Edmonds	Sarah Doris Parker
Mary Edith Finley	Letitia Neikirk Preston
Jeanette Cogburn Helms	Letha Holloman Rouse
Imogene Baker Huff	Dorothy Brunett Robinson
Mildred Hurst	Margaret Henderson Spencer
Louise Spann McCauley	Lois Claire Tripp
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Jesse Columbus Carson, Jr.	Robert Lorane Glenn
Marvin Emmett Cheek	Plato W. Greer
Gail Clay	Thurman K. Holmes
Ray Alexander Correll	Taylor Ledbetter Huskins
Numie Sherrill Cranford	Lee Morton Hutto
Malcolm Shields Croker	Floyd E. James
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Richard Dale Maxwell	Helen B. Stuart
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MASTER OF MUSIC

Jack Speer Pruitt	John Roberts Satterfield, Jr.
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Oscar Robert Cade	Sara Elizabeth Moore
Berdelle Taylor Campbell	Paul William Schuster
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Dale Lee Houghland	Marian Lucille Wood

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Ella Thomas Hobbs	

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Archie James Griggs

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James Benjamin Ragland

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Edith Chen

Edwin Hoffman Rhyne

Mary Huntington Coley

Barrett Rives Richardson

Grace Pemberton Coppedge

John Morris Ryan

Paul Bedell Cumberland

Alexander Alexandrovitch

Nancy Eugenia Derminer

Sakhnovsky

James Stephen Farmer

Ben Moore Seelbinder

Alec Wakefield Finlayson

Margaret Butler Seelbinder

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Marie Peachee Wicker
Richard Wiegand
Alan Holder Wiley

Miriam Williford
Sidney Anne Wilson
Ida Caroline Winston

DOCTOR OF PHILOSOPHY

John Michael Aden, *English*

Thesis: The Question of Influence in Dryden's Use of the Major French Critics.

Louis Leon Bernard, *History*

Thesis: Nicolas-Joseph Foucault: The Case Study of an Indendant in the Age of Louis XIV.

Delbert Meacham Beswick, *Music*

Thesis: The Problem of Tonality in Seventeenth-Century Music.

Woodrow Wilson Breland, *Education*

Thesis: An Analysis of the Processes of Curriculum Change in the White High Schools of Atlanta, Georgia, 1946-1949.

Kenneth Arthur Bush, *Mathematical Statistics*

Thesis: Orthogonal Arrays.

James Roy Caldwell, Jr., *History*

Thesis: A History of Granville County, North Carolina: The Preliminary Phase, 1746-1800.

Paul Hubert Cheek, *Chemistry*

Thesis: The Preparation of Some Mono- and Difluoro Derivatives of Substituted Pyridines.

Clay Lee Cochran, *Economics*

Thesis: Hired Farm Labor and the Federal Government.

Clyde Deans, *Education*

Thesis: A Study of the Effects of Acute Physical Fatigue on Certain Mental Processes.

Robert Miller Dinkel, *Sociology*

Thesis: Regional, Rural-Urban, and Occupational Fertility Trends in the United States, 1910 to 1940.

Austin Charles Dobbins, *English*

Thesis: The Employment of Chaucer by Dryden and Pope.

Geneviève Jeannette Faucher, *Romance Languages*

Thesis: Héritage Littéraire Du Limousin.

Hans Freistadt, *Physics*

Thesis: Approximate Solutions of the Field Equations and the Motion of Particles in Einstein's Generalized Theory of Gravitation.

Max Halperin, *Mathematical Statistics*

Thesis: Estimation in Truncated Sampling Processes.

Philip Henry Highfill, *English*

Thesis: A Study of Francis Gentleman's *The Dramatic Censor* (1770).

John Lawrence Hodges, *German*

Thesis: The Treatment of Women, Love and Marriage in the Works of Hans Sachs.

- Annie Laurie Keyes, *Education*
 Thesis: A Study of Teachers' Opinions Concerning Their Pre-Service Preparation in North Carolina Colleges.
- Robert Alexander Lively, *History*
 Thesis: The Novelist as Historian of the Civil War: A Survey and Evaluation.
- Hubert Ray Marshall, *Political Science*
 Thesis: Government and the Management of Southern Resources.
- Jack Robert Melton, *Education*
 Thesis: Educational Planning: Theory and Practice, with Special Reference to the Planning of Improvements in North Carolina Public Schools.
- John Kenneth Morland, *Sociology*
 Thesis: Mill-Village Life in a Piedmont Town.
- Harrison Miller Moseley, *Physics*
 Thesis: Composite Particles: Particles of Integral Spin as Compounds of Dirac-Type Particles.
- Leo Moser, *Mathematics*
 Thesis: On Sets of Integers Which Contain No Three in Arithmetical Progression, and On Sets of Distances Determined by Finite Point Sets.
- Clinton Roosevelt Prewett, *Education*
 Thesis: The Development of the Unit Method of Teaching from the Herbartian Movement to the Present.
- Charles Leland Rodgers, *Botany*
 Thesis: The Umbelliferae of North Carolina and Their Distribution in the Southeast.
- Samuel Albert Rosenberg, *Economics*
 Thesis: Credit Unions in North Carolina.
- Charles Grier Sellers, Jr., *History*
 Thesis: The Early Career of James K. Polk, 1795-1839.
- Sharad-Chandra Shankar Shrikhande, *Mathematical Statistics*
 Thesis: Some Combinatorial Problems in the Design of Experiments.
- John Leslie Snell, Jr., *History*
 Thesis: The German Socialists and Wilson's Peace Policy, 1914-1918.

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 Goldie Demb
 John Ashby Dick
 Louise Young Fitzgerald
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 Victor Hugo Gibeau, Jr.

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 David Landy
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 Marcus Glenn Singleton
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 Lucy Knox Jordan Washington
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 Robert Dicks Shore
 William Long Speas
 William Noble Starling
 Paul Edward Sutton
 Maurice Emmitt Talbot
 John Teigland, Jr.
 Richard Stanford Travis, III

William Grant Trexler, Jr.
 Sidney Bumpass Turner, Jr.
 Donnell VanNoppen, Jr.
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Sidney Williams Lancaster
 Peter Lowrey Long
 George John Rabil
 Wilmer Ray Rollins
 David Boyette Stevens
 George Francis Taylor
 John Harvey Turner
 Parker Whedon
 Donald Alan Williams
 Franklin Wilson Winfree

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 Kenneth Richard Hoyle
 Charles Eugene Knox

Roddey Miller Ligon, Jr.
 William Braxton Schell

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 Allen Carleton Phillips, Jr.

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 Ruby P. Shackelford
 William Daniel Vinson
 Charles Neil Watson
 Warren Jake Wicker
 Eunice Kneece Wolfe

DEGREES CONFERRED JUNE 4, 1951

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 Bynum Rhodes Brown
 Willis Donald Brown
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 Rufus Sisson Bynum
 John Ralph Cambron
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 Melvarene Alenia Johnson
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 in French)
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 Edwin Saunders Jordan
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