

THE UNIVERSITY
OF NORTH CAROLINA
March 20, 1947 RECORD *Number 434*

THE
GENERAL CATALOGUE

FOR

THE 153RD SESSION

1946-1947

*ANNOUNCEMENTS
FOR THE SESSION*

1947-1948



THE UNIVERSITY OF NORTH CAROLINA PRESS
ISSUED 12 TIMES A YEAR AS FOLLOWS: 4 NUMBERS IN FEBRUARY, 3 NUMBERS
IN MARCH, 3 NUMBERS IN APRIL, 1 NUMBER EACH IN JUNE AND 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 1946-1947

Research in Progress

Summer Session Catalogue

School of Pharmacy Catalogue

School of Library Science Catalogue

School of Public Health Catalogue

The General Catalogue

School of Medicine Catalogue

Division of Public Welfare and Social Work Catalogue

School of Law Catalogue

Graduate School Catalogue

School of Commerce Catalogue

Graduate School Catalogue of the Departments of Experimental
and Mathematical Statistics

MARCH 20, 1947

NUMBER 434

THE UNIVERSITY OF NORTH CAROLINA RECORD

THE ONE HUNDRED AND
FIFTY-THIRD SESSION



THE GENERAL CATALOGUE

CATALOGUE ISSUE

1946-1947

Announcements for the Session

1947-1948

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

1947

JANUARY	APRIL	JULY	OCTOBER
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1948

JANUARY	APRIL	JULY	OCTOBER
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CALENDAR OF EVENTS

1947

FALL QUARTER

Sept. 19	<i>Friday.</i> Freshman orientation and placement.
Sept. 22-24	<i>Monday-Wednesday.</i> Registration.
Sept. 25	<i>Thursday.</i> First day of classes.
Nov. 26	<i>Wednesday.</i> Thanksgiving recess begins 3:00 P.M.
Nov. 30	<i>Sunday.</i> Thanksgiving recess ends 6:00 P.M.
Dec. 12	<i>Friday.</i> Last day of classes.
Dec. 13, 15-18	<i>Saturday, Monday-Thursday.</i> Final examinations.
Dec. 19	<i>Friday.</i> Christmas vacation begins.

1948

WINTER QUARTER

Jan. 2	<i>Friday.</i> Freshman orientation and placement.
Jan. 3	<i>Saturday.</i> Registration of new students.
Jan. 5	<i>Monday.</i> First day of classes.
Mar. 12	<i>Friday.</i> Last day of classes.
Mar. 13, 15-17	<i>Saturday, Monday-Wednesday.</i> Final examinations
Mar. 18-24	<i>Thursday-Wednesday.</i> Spring holiday.

SPRING QUARTER

Mar. 23	<i>Tuesday.</i> Freshman orientation and placement.
Mar. 24	<i>Wednesday.</i> Registration of new students.
Mar. 25	<i>Thursday.</i> First day of classes.
June 1	<i>Tuesday.</i> Last day of classes.
June 2-5	<i>Wednesday-Saturday.</i> Final examinations.
June 7	<i>Monday.</i> Commencement.

SUMMER SESSION

June 9	<i>Wednesday.</i> Freshman orientation and placement.
June 10	<i>Thursday.</i> Registration for first summer term.
June 11	<i>Friday.</i> First day of classes.
June 12	<i>Saturday.</i> Regular classes in all departments.
July 17	<i>Saturday.</i> Regular classes in all departments.
July 17	<i>Saturday.</i> Last day of classes.
July 19-20	<i>Monday-Tuesday.</i> Final examinations.
July 21	<i>Wednesday.</i> Registration for second summer term.
July 22	<i>Thursday.</i> First day of classes.
July 24	<i>Saturday.</i> Regular classes in all departments.
Aug. 14	<i>Saturday.</i> Regular classes in all departments.
Aug. 26	<i>Thursday.</i> Last day of classes.
Aug. 27-28	<i>Friday-Saturday.</i> Final examinations.

PART ONE

OFFICERS

THE BOARD OF TRUSTEES

The University of North Carolina, Chapel Hill
The North Carolina State College of Agriculture and
Engineering of the University of North
Carolina, Raleigh
The Woman's College of the University of North Carolina,
Greensboro

Executive Committee

ROBERT GREGG CHERRY, *ex officio* Chairman.
ARCH T. ALLEN, Secretary.

Class of 1948

JOHN SPRUNT HILL, EDWIN PATE, JOHN J. PARKER.

Class of 1950

MRS. LAURA W. CONE, VICTOR S. BRYANT, MRS. MAY L. TOM-
LINSON.

Class of 1952

JOSEPHUS DANIELS, CLARENCE POE, CLYDE K. COUNCIL.

Class of 1954

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†J. C. B. EHRLINGHAUS.

Ex Officio Trustees

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ARCH T. ALLEN, Secretary of the Board.

Life Trustees

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*OLIVER MAX GARDNER, Governor, 1929-1933.
J. C. B. EHRLINGHAUS, Governor, 1933-1937.
CLYDE R. HOEY, Governor, 1937-1941.
JOSEPH MELVILLE BROUGHTON, Governor, 1941-1945.
GOVERNOR ROBERT GREGG CHERRY.

* Died February 6, 1947.

† Appointed February 10, 1947.

Class of April 1, 1949

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MISS ANNIE MOORE CHERRY.....	Halifax
DAVID CLARK.....	Mecklenburg
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CLYDE KITCHEN COUNCIL.....	Columbus
JOSEPHUS DANIELS.....	Wake
BENJAMIN BRYANT EVERETT.....	Halifax
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JAMES SKINNER FICKLEN.....	Pitt
JAMES ALEXANDER GRAY.....	Forsyth
REGINALD LEE HARRIS.....	Person
WILLIAM EDWIN HORNER.....	Lee
HUGH HORTON.....	Martin
ROBERT EUGENE LITTLE.....	Anson
DANIEL KILLIAN MOORE.....	Jackson
THOMAS JENKINS PEARSALL.....	Nash
JULIAN HAWLEY POOLE.....	Moore
JOHN ALBERT PRITCHETT.....	Bertie
CLAUDE WHARTON RANKIN.....	Cumberland
FOY ROBERSON.....	Durham
THOMAS CLARENCE STONE.....	Rockingham
WALTER FRANK TAYLOR.....	Wayne
MRS. MAY LOVELACE TOMLINSON.....	Guilford
FITZHUGH ERNEST WALLACE.....	Lenoir
GRAHAM WOODARD.....	Wilson

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EDWARD STEPHENSON ASKEW.....	Pamlico
KEMP DAVIS BATTLE.....	Nash
JAMES ALBERT BRIDGER.....	Bladen
CHARLES ALBERT CANNON.....	Cabarrus
RICHARD THURMOND CHATHAM.....	Forsyth
WILLIAM GRIMES CLARK.....	Edgecombe
ARTHUR MILLS DIXON.....	Gaston
†RUFUS ALEXANDER DOUGHTON.....	Alleghany
FRANK WILLS HANCOCK, JR.....	Granville
CHARLES ANDREW JONAS.....	Lincoln
ARTHUR HILL LONDON.....	Chatham
MRS. SADIE MCBRAYER MCCAIN.....	Moore
MRS. GERTRUDE DILLS MCKEE.....	Jackson

* Died November 16, 1946.

† Died August 17, 1945.

RAYMOND MAXWELL.....	Craven
REID ATWATER MAYNARD.....	Alamance
ANDREW LEE MONROE.....	Wake
KEMP BATTLE NIXON.....	Lincoln
JOHN JOHNSTON PARKER.....	Mecklenburg
ROBERT WRIGHT PROCTOR.....	McDowell
BENJAMIN FRANKLIN ROYAL.....	Carteret
WILLIAM BURDEN SHUFORD.....	Catawba
E. W. STEVENS.....	Duplin
FRED I. SUTTON.....	Lenoir
MISS GRACE PEMBERTON TAYLOR.....	Stokes

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SAMUEL MASTERS BLOUNT.....	Beaufort
VICTOR SILAS BRYANT.....	Durham
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COLLIER COBB, JR.....	Orange
GEORGE S. COBLE.....	Davidson
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JOHN GILMER DAWSON.....	Lenoir
JOSEPH C. EAGLES.....	Wilson
W. ROY HAMPTON.....	Washington
JOHN SPRUNT HILL.....	Durham
BENJAMIN KITTRELL LASSITER.....	Granville
JOHN Q. LEGRAND.....	New Hanover
HENRY ABEL LINEBERGER.....	Gaston
MRS. FRANCES NEWSOME MILLER.....	Wake
GLENN C. PALMER.....	Haywood
EDWIN PATE.....	Scotland
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ROY ROWE.....	Pender
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O. MAX GARDNER, JR.....	Cleveland

H. S. GIBBS.....	Carteret
A. H. HARRIS.....	Pamlico
IRA THOMAS JOHNSTON.....	Ashe
VERNON G. JAMES.....	Pasquotank
JOHN H. KERR, JR.....	Warren
JOHN G. KESLER.....	Rowan
MARK C. LASSITER.....	Greene
J. SPENCER LOVE.....	Guilford
WILLIE LEE LUMPKIN.....	Franklin
HENRY BURWELL MARROW.....	Johnston
LENNOX POLK McLENDON.....	Guilford
WILLIAM DANIEL MERRITT.....	Person
J. F. MILLIKEN.....	Union
RUDOLPH I. MINTZ.....	Brunswick
ROSA B. PARKER.....	Stanly
CLARENCE POE.....	Wake
CARL A. RUDISILL.....	Gaston
GEORGE M. STEPHENS.....	Buncombe
JOHN WESLEY UMSTEAD, JR.....	Orange
LIONEL WEIL.....	Wayne

OFFICERS OF ADMINISTRATION**THE UNIVERSITY OF NORTH CAROLINA**

(A consolidation of The University at Chapel Hill,
The State College of Agriculture and Engineering
at Raleigh, and The Woman's College at Greens-
boro)

(Office at Chapel Hill)

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
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LIVINGSTON BERTRAM ROGERSON, C.P.A., *Administrative Re-
search Officer*

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HERMAN GLENN BAITY	LILLIAN LEE VAUGHAN
WILLIAM SMITH WELLS	WALTER CLINTON JACKSON
JOHN NATHANIEL COUCH	ALBERT S. KEISTER
JOHN BROOKS WOOSLEY	MARGARET MESSENGER
JOHN WILLIAM HARRELSON	EDWARDS
DONALD BENTON ANDERSON	MEREB E. MOSSMAN
WILLIAM EDWARD SHINN	EMILY HOLMES WATKINS

**THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL**

General Administrative Officers

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor of The Univer-
sity at Chapel Hill and Vice-President of The University of
North Carolina*
*THOMAS JAMES WILSON, JR., Ph.D., *Secretary of the Faculty*
ALMONTE CHARLES HOWELL, Ph.D., *Secretary of the Faculty*
ALLAN WILSON HOBBS, Ph.D., *Chairman pro tempore of the
Faculty*
EARL HORACE HARTSELL, Ph.D., *Secretary pro tempore of the
Faculty*
JULIUS ALGERNON WARREN, *Treasurer*
CLAUDE EDWARD TEAGUE, A.B., *Assistant Controller and Business
Manager*

Administrative Officers of Instruction

WILLIAM SMITH WELLS, Ph.D., *Dean of the College of Arts and
Sciences and Chairman of the Committee on Instruction*
WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Gradu-
ate School*

* Died October 25, 1945.

ROBERT HASLEY WETTACH, A.M., LL.B., S.J.D., *Dean of the School of Law*

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

*JOHN GROVER BEARD, Ph.G., Ph.M., *Dean of the School of Pharmacy*

DUDLEY DEWITT CARROLL, M.A., *Dean of the School of Commerce*

CORYDON PERRY SPRUILL, A.B., B.Litt. (Oxon.), *Dean of the General College*

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

†MILTON JOSEPH ROSENAU, M.D., A.M., *Dean of the School of Public Health*

HERMAN GLENN BAITY, Sc.D., *Acting Dean of the School of Public Health*

MARION LEE JACOBS, Ph.D., *Dean of the School of Pharmacy*

Administrative Officers of Student Welfare

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KATHERINE KENNEDY CARMICHAEL, Ph.D., *Dean of Women*

FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Vocational Counsellor to Men*

KATHRYN G. COOK, M.A., *Vocational Counsellor to Women*

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

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OLIVER KELLY CORNWELL, M.A., *Director of Physical Education for Men*

GLADYS ANGEL BEARD, M.A., *Director of Physical Education for Women*

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WILLIAM HARDMAN POTEAT, A.B., B.D., *Assistant General Secretary of the Y.M.C.A.*

MRS. BETTY ROSE DOWDEN, M.A., *Secretary of the Y.W.C.A.*

EDWIN SIDNEY LANIER, *Director of Student Aid Office*

MARTHA RICE, A.B., *Director of Graham Memorial*

* Died April 23, 1946.

† Died April 9, 1946.

Administrative Officers of Admissions, Registration, and Records

*THOMAS JAMES WILSON, JR., Ph.D., *Advisory Dean, Editor of the University of North Carolina Record, Archivist*

†BEN HUSBANDS, A.B., *Registrar*

LEE ROY WELLS ARMSTRONG, A.B., *Director of Admissions*

EDWIN SIDNEY LANIER, *Director of the Office of Records*

MISS JOSEPHINE PRITCHARD, *Senior Recorder, Office of Records*

The University Library

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OLAN VICTOR COOK, A.B., A.B. in L.S., *Assistant Librarian*

The University Extension Division

RUSSELL MARVIN GRUMMAN, B.H., *Director*

The Alumni Offices

JOSEPH MARYON SAUNDERS, A.M., *Alumni Secretary*

The University News Bureau

ROBERT WILSON MADRY, A.B., B.Litt., *Director*

The University of N. C. Press

THOMAS JAMES WILSON, Ph.D., *Director*

Hill Hall of Music

GLEN HAYDON, Ph.D., *Director*

Person Hall Art Gallery

JOHN VOLNEY ALLCOTT, M.A., *Director*

Communication Center

EARL WYNN, M.S., *Director*

* Died October 25, 1945.

† On leave from May 15, 1944.

OFFICERS OF INSTRUCTION (1946-1947)

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
A.B., 1909 (North Carolina); M.A., 1916 (Columbia); LL.D.
(Birmingham-Southern, Davidson, Duke, William and Mary,
Wake Forest, Harvard, Amherst); D.C.L. (Catawba); D.Litt. (Co-
lumbia).

ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor, and Vice-Presi-
dent of the University of North Carolina*
A.B., 1916 (North Carolina); A.M., 1917 (Harvard); LL.D. (Ca-
tawba).

Note: Names in alphabetical order

PEYTON BRYANT ABBOTT, A.B., LL.B., *Assistant Director of the
Institute of Government*

A.B., 1929, LL.B., 1931 (North Carolina).

CLIFFORD R. ADAMS, Ph.D., *Lecturer in Psychology*

A.B., 1928, M.A., 1936 (North Carolina); Ph.D., 1940 (Pennsyl-
vania State College).

JOSEPH EDISON ADAMS, Ph.D., *Associate Professor of Botany*

Ph.G., 1925, Ph.Ch., 1927 (College of Pharmacy, Columbia); B.S.,
1929 (Michigan); M.A., 1932 (Columbia); Ph.D., 1935 (Calif-
ornia).

NICHOLSON BARNEY ADAMS, Ph.D., *Professor of Spanish*

A.B., 1915 (Washington and Lee); M.A., 1920, Ph.D., 1922 (Co-
lumbia).

RAYMOND WILLIAM ADAMS, Ph.D., *Professor of English*

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

GERTRUDE ADLER, S.B., *Instructor in German*

S.B., 1946 (North Carolina).

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, Wis-
consin); Ph.D., 1932 (Chicago).

BILLIE ALBRIGHT, B.S., *Instructor in Physical Education*

B.S., 1943 (Woman's College of the U. N. C.).

EDGAR ALDEN, M.M., *Instructor in Music*

B.M., 1936, M.M., 1940 (Oberlin).

SYDENHAM BENONI ALEXANDER, A.B., M.D., *Instructor in Medi-
cine and Assistant University Physician*

A.B., 1941 (North Carolina); M.D., 1944 (Medical College of Vir-
ginia).

JOHN VOLNEY ALLCOTT, M.A., *Associate 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).

- LLOYD WILLIAM ALLEN, S.B.Comm., *Assistant Director of the Institute of Government*
S.B.Comm., 1941 (North Carolina).
- *WALTER ALLEN, JR., Ph.D., *Associate Professor of Latin*
A.B., 1932 (Wesleyan); Ph.D., 1936 (Yale).
- JAMES CLARENCE ANDREWS, Ph.D., *Professor of Biological Chemistry and Nutrition*
B.S. in Chem., 1915 (Iowa); Ph.D., 1918 (Columbia).
- †EDUARDO ANGEL-BELLO, S.B., *Part-time Instructor in Spanish*
S.B., 1946 (North Carolina).
- WARREN ASHBY, A.B., B.D., *Instructor in Philosophy*
A.B., 1939 (Maryville College); B.D., 1942 (Yale).
- ▷ EMMETT GEORGE ASSEFF, A.M., *Part-time Instructor in Political Science*
A.B., 1939, A.M., 1940 (Louisiana State).
- × MARY JANE AULD, A.B., *Part-time Instructor in Physics*
A.B., 1943 (Agnes Scott College).
- HERBERT RALPH BAER, A.B., LL.B., *Professor of Law*
A.B., 1923 (Cornell); LL.B., 1926 (Harvard).
- ROBERTO BAESSA, A.B., *Instructor in Spanish*
A.B., 1946 (North Carolina).
- ENGLISH BAGBY, Ph.D., *Professor of Psychology*
A.B., 1913, A.M., 1914 (Princeton); Ph.D., 1918 (Johns Hopkins).
- JAMES OSLER BAILEY, Ph.D., *Associate Professor of English*
A.B., 1924, A.M., 1927, Ph.D., 1934 (North Carolina).
- HERMAN GLENN BAITY, Sc.D., *Professor of Sanitary Engineering and Acting Dean of the School of Public Health*
A.B., 1917, S.B. in C.E., 1922 (North Carolina); S.M., 1925, Sc.D., 1928 (Harvard).
- HAL LACKEY BALLEW, *Instructor in Spanish*
- JAMES WORTH BANNER, A.M., *Instructor in Spanish*
B.S., 1930 (Roanoke College); A.M., 1942 (North Carolina).
- GERALD ALAN BARRETT, A.B., LL.B., *Acting Associate Professor of Business Law*
A.B., 1933 (Lehigh); LL.B., 1936 (Columbia).
- WILLIAM R. BARRETT, A.M., *Instructor in German*
A.B., 1939 (The Citadel); A.M., 1940 (Duke).
- MRS. WILLIAM R. BARRETT, A.M., *Instructor in German*
A.B., 1940 (Alabama College); A.M., 1946 (North Carolina).
- ‡ MAURICE STEVENSON BARTLETT, D.Sc., *Visiting Professor of Mathematical Statistics*
M.A., 1935 (Cambridge); D.Sc., 1937 (London).
- JAMES LEONARD BATES, A.M., *Instructor in Social Science*
A.B., 1941 (Wake Forest College); A.M., 1946 (North Carolina).

* Absent on leave, 1947-1948.

† Winter and spring quarters, 1947.

‡ Fall quarter, 1946.

- REX BEACH, M.A., *Instructor in Social Science*
B.S., 1939 (Davidson College); M.A., 1941 (Virginia).
- HOWARD KENNEDY BEALE, Ph.D., *Professor of History*
Ph.B., 1921 (Chicago); A.M., 1922, Ph.D., 1927 (Harvard).
- GLADYS ANGEL BEARD, M.S., *Assistant Professor of Health and Physical Education and Director of Physical Education for Women*
Certificate in Hygiene, 1918 (Wellesley College); B.S., 1923, M.S., 1930 (Teachers College, Columbia).
- *JOHN GROVER BEARD, Ph.G., Ph.M., *Professor of Materia Medica and Dean of the School of Pharmacy*
Ph.G., 1909 (North Carolina); Ph.M., 1930 (Philadelphia College of Pharmacy).
- CHARLES DALE BEERS, Ph.D., *Professor of Zoology*
A.B., 1921, A.M., 1922 (North Carolina); Ph.D., 1925 (Johns Hopkins).
- WILLIAM FRANCIS BELCHER, A.B., *Part-time Instructor in English*
A.B., 1942 (Texas Technological College).
- BURGIN L. BENTON, A.B., *Lieut. Comdr., AVH, U. S. Navy, Assistant Professor of Naval Science*
A.B., 1939 (Eastern Kentucky State Teachers College).
- 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).
- 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).
- CHARLES BARKLEY BLAIR, JR., A.B., *Instructor in Zoology*
A.B., 1938 (Maryville College).
- SIDNEY HORNER BLAKELY, M.A., *Part-time Instructor in English*
A.B., 1934, M.A., 1937 (Arkansas).
- LOIS MAGDALENE BLANCHETTE, B.A., *Instructor in Physical Education*
B.A., 1935 (Texas State College for Women).
- MARGARET BLEE, M.Ed., *Associate Professor of Public Health Nursing*
B.S., 1933 (Missouri); M.Ed., 1941 (Mills College).
- FRANCIS ROYSTER BLISS, A.B., *Part-time Instructor in Classics*
A.B., 1940 (Bowdoin College).

* Died April 23, 1946.

- RALPH STEELE BOGGS, Ph.D., *Professor of Spanish*
Ph.B., 1926, Ph.D., 1930 (Chicago).
- RICHMOND PUGH BOND, Ph.D., *Professor of English*
A.B., 1920 (Vanderbilt); A.M., 1923, Ph.D., 1929 (Harvard).
- *ALLEN THOMAS BONNELL, Ph.D., *Assistant Professor of Economics*
B.A., 1933, M.A., 1934 (Oberlin College); Ph.D., 1937 (Illinois).
- JOHN MANNING BOOKER, Ph.D., *Professor of English*
A.B., 1901 (Johns Hopkins); M.A. and Ph.D., 1912 (Heidelberg).
- RAJ CHANDRA BOSE, Ph.D., *Visiting Associate Professor of Mathematical Statistics*
M.A., 1938, Ph.D., 1942 (University of Calcutta).
- RALPH WALTON BOST, Ph.D., *Smith Professor of Chemistry*
A.B., 1923 (Newberry); A.M., 1924, Ph.D., 1928 (North Carolina).
- WILLIAM BRACY, A.M., *Part-time Instructor in English*
A.B., 1936, A.M., 1939 (North Carolina).
- HENRY PARKER BRANDIS, JR., A.B., LL.B., *Associate Professor of Law*
A.B., 1928 (North Carolina); LL.B., 1931 (Columbia).
- ALFRED THEODOR BRAUER, Ph.D., *Associate Professor of Mathematics*
Ph.D., 1928 (Berlin).
- EDWARD ARMOND BRECHT, Ph.D., *Professor 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).
- KENNETH MERLE BRINKHOUS, B.A., M.D., *Professor and Head of Department of Pathology, School of Medicine*
B.A., 1929, M.D., 1932 (Iowa).
- NANCY BROCK, *Instructor in Physical Education*
- EARLE W. BROCKMAN, JR., A.B., *Instructor in French*
A.B., 1940 (North Carolina).
- LEE MARSHALL BROOKS, Ph.D., *Professor of Sociology*
A.B., 1925 (Boston); A.M., 1926, Ph.D., 1929 (North Carolina).
- ERNEST ALLAN BROWN, A.B., *Part-time Instructor in English*
A.B., 1941 (North Carolina).
- ROY MELTON BROWN, Ph.D., *Professor of Public Welfare Administration*
A.B., 1906, A.M., 1921, Ph.D., 1929 (North Carolina).
- EDWARD TANKARD BROWNE, Ph.D., *Professor of Mathematics*
B.A., 1915, M.A., 1917 (Virginia); Ph.D., 1926 (Chicago).
- STELLA POLLITZ BRUTON, M.A., *Part-time Instructor in English*
A.B., 1944, M.A., 1946 (Stanford).

* Absent on leave, 1946-1947.

- ALBERT HUGHES BRYAN, M.D., *Professor of Public Health Nutrition*
B.S., 1927, M.D., 1931 (Harvard).
- DANIEL HOUSTON BUCHANAN, Ph.D., *Professor of Economics*
Litt.B., 1909 (Sterling College); A.B., 1911 (Colorado College);
A.M., 1912 (Harvard); D.Sc.Econ., 1928 (Keiogijuku Univ., To-
kyo); Ph.D., 1931 (Harvard).
- JAMES BELL BULLITT, A.M., M.D., *Professor of Pathology*
B.A., 1894, M.A., 1895 (Washington and Lee); M.D., 1897 (Vir-
ginia).
- WILLIAM GREEN BURKS, M.A., *Instructor in Spanish*
A.B., 1928 (Mississippi); M.A., 1935 (Alabama).
- HENRY MATTHEW BURLAGE, Ph.D., *Professor of Pharmacy*
A.B., 1919 (Indiana); A.M., 1921 (Harvard); Ph.G., B.S. Pharm.,
1924 (Purdue); Ph.D., 1929 (Washington).
- FRANCES BURNS, M.A., *Instructor in Physical Education*
B.S., 1943 (Winthrop College); M.A., 1945 (Iowa).
- CURTIS EARL BUTLER, A.B., *Instructor in French*
A.B., 1946 (North Carolina).
- LUCY SCOTT BYNUM, M.A., *Part-time Instructor in English*
A.B., 1939 (Huntingdon College); M.A., 1940 (Texas).
- WALLACE EVERETT CALDWELL, Ph.D., *Professor of Ancient His-
tory*
A.B., 1910 (Cornell); Ph.D., 1919 (Columbia).
- RICHARD P. CALHOON, M.A., *Professor of Business Administra-
tion*
A.B., 1930, M.A., 1932 (University of Pittsburgh).
- EDWARD ALEXANDER CAMERON, Ph.D., *Professor of Mathematics*
A.B. in Education, 1928, A.M., 1929, Ph.D., 1936 (North Carolina).
- FRANK KENNETH CAMERON, Ph.D., *Professor Emeritus of Chemis-
try*
A.B., 1891, Ph.D., 1894 (Johns Hopkins).
- GRIFFIN CARMICHAEL, A.B., *Part-time Instructor in Physics*
A.B., 1942 (Emory).
- KATHERINE KENNEDY CARMICHAEL, Ph.D., *Dean of Women*
A.B., 1932 (Birmingham-Southern); M.A., 1939, Ph.D., 1943
(Vanderbilt).
- LALA FRANCES CARR, A.M., *Instructor in Social Science*
A.B., 1943 (Georgia State College for Women); A.M., 1946 (North
Carolina).
- DUDLEY DEWITT CARROLL, M.A., *Professor of Economics and
Dean of the School of Commerce*
A.B., 1907 (Guilford); A.B., 1908 (Haverford); M.A., 1915 (Co-
lumbia).
- JOHN ERWIN CARROLL, JR., A.M., *Instructor in French*
B.S., 1923 (The Citadel); A.M., 1928 (North Carolina).
- 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).
- CORNELIUS OLIVER CATHY, M.A., *Instructor in Social Science*
A.B., 1928, M.A., 1929 (Davidson College).
- JOHN RANDOLPH CHAMBLISS, S.B. Med., M.D., *Instructor in Medicine and Assistant University Physician*
S.B. Med., 1942 (North Carolina); M.D., 1944 (Harvard).
- WILLIAM JAMES CHANDLER, A.M., *Instructor in English*
A.B., 1931, A.M., 1932 (North Carolina).
- MRS. WILLIAM J. CHANDLER, A.B., *Instructor in German*
A.B., 1932 (Woman's College of the U. N. C.).
- EMIL THEODORE CHANLETT, M.S.S.E., *Assistant Professor of Sanitary Science*
B.S., 1937 (College of the City of New York); M.S.P.H., 1939 (Columbia); M.S.S.E., 1941 (North Carolina).
- PHILIP MACON CHEEK, Ph.D., *Instructor in English*
A.B., 1927, A.M., 1928, Ph.D., 1931 (North Carolina).
- LOUIS ASHWORTH CHERRY, B.A., S.B. in L.S., *Assistant Director and Librarian of the Institute of Government*
B.A., 1940 (Wake Forest); S.B. in Libr. Sci., 1941 (Drexel Institute of Technology).
- TALBOT ALBERT CHUBB, A.B., *Part-time Instructor in Physics*
A.B., 1944 (Princeton).
- HOWARD B. CLAY, M.A., *Instructor in Social Science*
A.B., 1933, M.A., 1938 (Emory).
- 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).
- CLAY LEE COCHRAN, M.A., *Instructor in Economics*
A.B., 1938, M.A., 1938 (Texas).
- WILLIAM McWHORTER COCHRANE, A.B., LL.B., *Assistant Director of the Institute of Government*
A.B., 1939, LL.B., 1941 (North Carolina).
- FREDERIC EDWARD COENEN, Ph.D., *Associate Professor of German and Adviser in the General College*
A.B., 1928, A.M., 1930 (Arizona); Ph.D., 1936 (North Carolina).
- OSCAR JACKSON COFFIN, A.B., *Professor of Journalism*
A.B., 1909 (North Carolina).
- GEORGE RALEIGH COFFMAN, Ph.D., *Kenan Professor of English*
A.E., 1903 (Drake); A.M., 1909 (Harvard); Ph.D., 1913 (Chicago).
- ROBERT ERVIN COKER, Ph.D., *Kenan Professor of Zoology*
S.B., 1896, M.S., 1897 (North Carolina); Ph.D., 1906 (Johns Hopkins).

- WILLIAM CHAMBERS COKER, Ph.D., LL.D., *Kenan Research Professor Emeritus of Botany*
B.S., 1894 (South Carolina); Ph.D., 1901 (Johns Hopkins); LL.D. (South Carolina).
- ROBERT DIGGES WIMBERLY CONNOR, Ph.B., LL.D., D.Litt., *Craig Professor of Jurisprudence and History*
Ph.B., 1899 (North Carolina); LL.D. (Duke, North Carolina); D.Litt. (Lenoir-Rhyne).
- KATHRYN G. COOK, M.A., *Assistant Professor of Education and Vocational Counsellor to Women*
A.B., 1932 (Transylvania College); M.A., 1941 (Columbia).
- OLAN VICTOR COOK, A.B., A.B. in Library Science, *Associate Professor, Assistant Librarian, and Curator of Rare Books*
A.B., 1929, A.B. in Library Science, 1932 (North Carolina).
- ALBERT DERWIN COOPER, A.B., M.D., *Instructor in Medicine*
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., *Professor of Physical Education and Director of Physical Education for Men*
A.B., 1920 (Wittenberg College); M.A., 1929 (Ohio State).
- DONALD PAUL COSTELLO, Ph.D., *Professor of Zoology*
A.B., 1930 (College of the City of Detroit); Ph.D., 1934 (Pennsylvania).
- LYMAN ATKINSON COTTEN, Ph.D., *Assistant Professor of English*
A.B., 1936 (North Carolina); Ph.D., 1941 (Yale).
- JOHN NATHANIEL COUCH, Ph.D., *Kenan Professor of Botany*
A.B., 1919, A.M., 1922, Ph.D., 1924 (North Carolina); Sc.D., 1946 (Catawba College).
- DUDLEY JOHNSTONE COWDEN, Ph.D., *Professor of Economic Statistics*
A.B., 1919 (Grinnell College); A.M., 1922 (Chicago); Ph.D., 1931 (Columbia).
- HARDIN CRAIG, Ph.D., Litt.D., *Professor of English*
A.B., 1897 (Centre College); A.M., 1899, Ph.D., 1901 (Princeton); Litt.D., (Centre College).
- HARRY WOLVEN CRANE, Ph.D., *Professor of Psychology and Psychological Consultant*
A.B., 1909, A.M., 1910, Ph.D., 1913 (Michigan).
- *WALTER DEVEREAUX CREECH, A.M., *Instructor in French*
A.B., 1928, A.M., 1930 (North Carolina); Certificate, University of Lyons (1932), University of Bordeaux (1933).
- †DOROTHY CREWS, A.B., S.B. in L.S., *Instructor in Library Science*
A.B., 1937 (Florida State College for Women); S.B. in L.S., 1941 (North Carolina).

* Absent on leave in military service.

† Winter and spring quarters, 1947.

- HORACE DOWNS CROCKFORD, Ph.D., *Professor of Chemistry*
B.S., 1920 (N. C. State College of Agriculture and Engineering);
S.M., 1923, Ph.D., 1926 (North Carolina).
- JOSEPH RAPHAEL CRUZ, *Instructor in Spanish*
- CECIL CURTIS, A.B., *Part-time Instructor in English*
A.B., 1940 (Birmingham-Southern).
- JOHN PERCY DALZELL, A.B., LL.B., *Associate Professor of Law*
A.B., 1922, LL.B., 1924 (Minnesota).
- CAROLYN ANDREWS DANIEL, A.B., *Instructor in Social Science*
A.B., 1940 (Meredith College).
- WILLIAM JOHN DANIEL, Ph.D., *Associate Professor of Psychology*
A.B., 1938 (Antioch College); Ph.D., 1942 (North Carolina).
- WILLIAM MOYE DARDEN, A.B., *Instructor in Social Science*
A.B., 1942 (North Carolina).
- JOHN FREDERICK DASHIELL, Ph.D., *Kenan Professor of Psychology*
B.S., 1908, B.Litt., 1909 (Evansville College); M.S., 1910, Ph.D.,
1913 (Columbia).
- EUGENE WOOD DAVIS, A.M., *Instructor in Social Science*
A.B., 1940 (Texas); A.M., 1941 (Harvard).
- HARRY ELLERBE DAVIS, M.A., *Associate Professor of Dramatic
Art and Associate Director of The Carolina Playmakers*
A.B., 1927 (South Carolina); M.A., 1940 (Columbia).
- THELMA BOLICK DAVIS, A.B., *Part-time Instructor in Physics*
A.B., 1944 (North Carolina).
- GORO ABDULLAH DEEB, A.M., *Part-time Instructor in Political
Science*
A.B., 1942, A.M., 1942 (Colorado).
- NICHOLAS JAY DEMERATH, Ph.D., *Associate Professor of Sociol-
ogy and Research Associate in the Institute for Research in
Social Science*
A.B., 1934 (De Pauw); A.M., 1938, Ph.D., 1942 (Harvard).
- GEORGE HARVEY DEMING, A.B., *Part-time Instructor in Political
Science*
A.B., 1936 (Middlebury College).
- WILLIAM MORTON DEY, Ph.D., *Kenan Professor of the Romance
Languages and Literatures*
B.A., M.A., 1902 (Virginia); A.M., 1904, Ph.D., 1906 (Harvard).
- ELLEN-FAIRBANKS D. DIGGS, A.B., *Instructor in Social Science*
A.B., 1945 (Smith College).
- JAMES CANNON DIXON, M.A., *Instructor in Psychology*
A.B. (Mount St. Mary's College); M.A., 1946 (North Carolina).
- JAMES TALMAGE DOBBINS, Ph.D., *Professor of Chemistry*
A.B., 1911, A.M., 1912, Ph.D., 1914 (North Carolina).

- WILFRED SELLERS DOWDEN, M.A., *Part-time Instructor in English*
B.A., 1939, M.A., 1940 (Vanderbilt).
- *EDWARD THAYER DRAPER-SAVAGE, *Instructor in French*
- BERTRAM MORRIS DRUCKER, A.M., *Instructor in Mathematics and
Special Lecturer in Psychology and Sociology*
A.B., 1940, A.M., 1946 (North Carolina).
- FRANK MARION DUFFEY, A.M., *Instructor in Spanish*
A.B., 1938 (Miami University); A.M., 1940 (North Carolina).
- ROBERT YALE DURAND, A.B., M.B.A., *Assistant Professor of Eco-
nomics*
A.B., 1934 (Oberlin); M.B.A., 1941 (Harvard).
- JOHN EDWARD DYKSTRA, C.E., M.B.A., D.C.S., *Professor of Busi-
ness Administration*
C.E., 1930 (Rensselaer); M.B.A., 1932, D.C.S., 1936 (Harvard).
- CHARLES EDWARD EATON, M.A., *Acting Assistant Professor of
English*
A.B., 1936 (North Carolina); M.A., 1940 (Harvard).
- FLOYD HARRIS EDMISTER, Ph.D., *Associate Professor of Chemis-
try and Adviser in the General College*
B.S., 1912 (Syracuse); M.S., 1913 (Louisiana State); Ph.D., 1918
(Syracuse).
- MELVIN EISNER, A.B., *Part-time Instructor in Physics*
A.B., 1942 (Brooklyn College).
- NORMAN ELLSWORTH ELIASON, Ph.D., *Professor of English*
A.B., 1927 (Luther College); M.A., 1931 (Iowa); Ph.D., 1936
(Johns Hopkins).
- CHARLES RAY ELLIOTT, A.B., *Instructor in Psychology*
A.B., 1940 (Albion).
- FRED WILSON ELLIS, Ph.D., *Associate Professor of Pharmacology*
B.S., 1936 (South Carolina); Ph.D., 1941 (Maryland).
- JOHN VAN GAASBEEK ELMENDORF, A.B., *Instructor in French*
A.B., 1937 (North Carolina).
- MAURICE ELSTUN, A.B., *Instructor in Spanish*
A.B., 1940 (Miami University).
- 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 College); 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., *Associate Professor of French*
A.B., 1933, A.M., 1935, Ph.D., 1941 (North Carolina).
- MARY CLAIRE ENGSTROM, Ph.D., *Part-time Instructor in English*
A.B., 1928 (Central Missouri State College); M.A., 1929 (Mis-
souri); Ph.D., 1939 (North Carolina).

* Winter and spring quarters, 1947.

- 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).
- FRANKLIN CARL ERICKSON, Ph.D., *Professor of Geology and Geography*
A.B., 1928, A.M., 1930, Ph.D., 1935 (Clark).
- MARIBELLE GUIN FARLOW, M.S.P.H., *Assistant Professor of Public Health Education*
B.S., 1942 (Woman's College, Univ. of N. C.); M.S.P.H., 1944 (North Carolina).
- PRESTON COOKE FARRAR, M.A., *Professor Emeritus of Education*
A.B., 1891 (Washington and Jefferson College); M.A., 1904 (Columbia).
- JOHN EDWARD FARRIOR, A.M., *Part-time Instructor in English*
A.B., 1939, A.M., 1944 (North Carolina).
- 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.
- ABBOTT LAMOYNE FERRISS, A.M., *Part-time Instructor in Sociology*
B.J., 1937 (Missouri); A.M., 1943 (North Carolina).
- JAMES WILLIAM FESLER, Ph.D., *Professor of Political Science and Research Professor in the Institute for Research in Social Science*
A.B., 1932 (Minnesota); A.M., 1933, Ph.D., 1935 (Harvard).
- 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 Director of the Division of Public Welfare and Social Work*
A.B., 1924, A.M., 1930, Ph.D., 1936 (Pennsylvania); M.S.W., 1937 (Pennsylvania School of Social Work).
- RUTH WHITE FINK, A.M., *Assistant Professor of Physical Education*
B.S., 1926, A.M., 1936 (Ohio State).
- *T. ROSS FINK, A.M., *Instructor in Education*
A.B., 1926 (Swarthmore); A.M., 1942 (North Carolina).
- FOSTER FITZ-SIMONS, A.B., *Assistant Professor of Dramatic Art*
A.B., 1934 (North Carolina).

* Absent on leave, 1946-1947.

- RALPH GIBSON FLEMING, M.D., *Instructor in Medicine*
M.D., 1936 (Pennsylvania).
- JOE SUMMERS FLOYD, JR., A.M., *Lecturer in Economics*
B.S., 1943 (Florida); A.M., 1944 (North Carolina).
- GERALDINE ALMA FOSTER, A.M., *Assistant Dean of the College
of Arts and Sciences*
B.S., 1931 (St. Lawrence); A.M., 1942 (North Carolina).
- 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 College); A.M., 1921 (North Carolina).
- DAVID GROVER FREY, Ph.D., *Associate Professor of Zoology*
A.B., 1936, A.M., 1938, Ph.D., 1940 (Wisconsin).
- WERNER PAUL FRIEDERICH, Ph.D., *Associate 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).
- *PEGGYLEE GANO, M.A., *Visiting Lecturer in Psychology*
M.A., 1945 (Columbia).
- LOFTON LEROY GARNER, A.M., *Associate Professor of Mathe-
matics*
A.B., 1925, A.M., 1927 (North Carolina).
- MITCHELL BENNETT GARRETT, Ph.D., LL.D., *Professor of Modern
European History*
A.B., 1900, A.M., 1903 (Howard College); Ph.D., 1910 (Cornell);
LL.D. (Howard College).
- OSCAR DAVID GARVIN, M.D., M.P.H., *University Health Officer*
M.D., 1932 (Medical College of the State of South Carolina);
M.P.H., 1939 (Johns Hopkins).
- ALBERT CLARKE GASKILL, S.B. Comm., C.P.A., *Lecturer in Ac-
counting*
S.B.Comm., 1943 (North Carolina); C.P.A., (State of North Caro-
lina).
- LYNN GAULT, A.M., *Assistant Professor of Dramatic Art*
B.A., 1937 (Hiram College); A.M., 1939 (North Carolina).
- WESLEY CRITZ GEORGE, Ph.D., *Professor of Histology and Em-
bryology*
A.B., 1911, A.M., 1912, Ph.D., 1918 (North Carolina).
- HUGO GIDUZ, A.B., *Professor of French*
A.B., 1905 (Harvard).

* Fall quarter, 1946, and spring quarter, 1947.

- FEDERICO GUILLERMO^{*} GIL, J.D., D.Pol.Sci., D.Dip.Law., Assistant Professor of Latin American Civilization
J.D., 1938, D.Pol.Sci., 1940, D.Dip.Law., 1941 (Habana).
- JAMES PERCIVAL GILL, A.B., Assistant Football Coach and Instructor in Physical Education
A.B., 1934 (Missouri).
- 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).
- JAMES LOGAN GODFREY, Ph.D., Associate Professor of History and Adviser in the General College
A.B., 1931 (Roanoke College); A.M., 1933 (North Carolina); Ph.D., 1942 (Chicago).
- ROBERT E. GOODNOW, A.B., Instructor in Psychology
A.B., 1946 (Kenyon College).
- EDGAR HUNT GOOLD, JR., A.M., Part-time Instructor in English
A.B., 1939, A.M., 1941 (North Carolina).
- MABEL E. GOUDGE, Ph.D., M.D., Lecturer in Psychology
A.B., 1908, M.A., 1909 (Dalhousie University, Halifax, Nova Scotia); Ph.D., 1914 (Cornell); M.D., 1922 (Ohio State).
- JOHN LEWIS GOUGER, B.S. in Comm., Part-time Instructor in Commerce
B.S. in Comm., 1937 (North Carolina).
- JOHN BORDEN GRAHAM, B.S., M.D., Instructor in Pathology
B.S., 1938 (Davidson); M.D., 1942 (Cornell).
- WILLIAM ALEXANDER GRAHAM, A.B., M.D., Lecturer in Obstetrics
A.B., 1928 (North Carolina); M.D., 1932 (Pennsylvania).
- DEWEY WESLEY GRANTHAM, JR., A.B., Instructor in Social Science
A.B., 1942 (Georgia).
- WALTER THOMAS GRAYBEAL, B.S., Part-time Instructor in Mathematics
B.S., 1939 (Appalachian State Teachers College).
- CORINNE WASHINGTON GREEN, A.B., Part-time Instructor in Latin
A.B., 1943 (Rockford College).
- FLETCHER MELVIN GREEN, Ph.D., Kenan Professor of History
Ph.B., 1920 (Emory); A.M., 1922, Ph.D., 1927 (North Carolina).
- *PAUL ELIOT GREEN, A.B., Litt.D., Professor of Dramatic Art
A.B., 1921 (North Carolina); Litt.D., 1940 (Western Reserve).

* Absent on leave.

- MAURICE H. GREENHILL, A.B., M.D., *Visiting Associate Professor of Public Health Psychiatry; Associate Professor of Neuropsychiatry, Duke University School of Medicine*
A.B., 1931 (Rochester); M.D., 1936 (Chicago).
- JANE GRILLS, M.A., *Assistant Professor of Radio*
A.B., 1941, M.A., 1943 (Michigan).
- ALAN PENDLETON GRIMES, A.M., *Part-time Instructor in Political Science*
A.B., 1941, A.M., 1946 (North Carolina).
- *ERNEST RUTHERFORD GROVES, B.D., A.B., Litt.D., L.H.D., *Professor of Sociology*
B.D., 1901 (Yale); A.B., 1903 (Dartmouth College); Litt.D. (Florida Southern College); L.H.D. (Boston University).
- JUNE URLAH GUNTER, A.B., M.D., *Instructor in Pathology and Director of Laboratories at Watts Hospital*
A.B., 1931 (North Carolina); M.D., 1935 (Jefferson Medical College).
- PAUL NEWMAN GUTHRIE, Ph.D., *Professor of Economics*
A.B., (Tennessee); B.D., (Union Theological Seminary); M.A., 1932, Ph.D., 1946 (Columbia).
- FRANZ GUTMANN, D.Ec., *Lecturer in Economics*
D.Ec., 1904 (Strasbourg).
- JOHN MINOR GWYNN, Ph.D., *Professor of Education*
A.B., 1918, A.M., 1927 (North Carolina); Ph.D., 1935 (Yale).
- WALDO EMERSON HAISLEY, JR., M.A., *Instructor in Economics*
A.B., 1936 (Texas); M.A., 1940 (Columbia).
- SEYMOUR PUTTERMAN HALBERT, M.D., *Assistant Professor of Experimental Medicine*
A.B., 1937 (North Carolina); M.D., 1941 (Johns Hopkins).
- JOHN BOWEN HAMILTON, A.B., *Part-time Instructor in English*
A.B., 1936 (Birmingham-Southern).
- JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph.D., Litt.D., *Kenan Professor of American History and Political Science and Director of the Southern Collection*
M.A., 1900 (University of the South); Ph.D., 1906 (Columbia); Litt.D. (University of the South, Washington and Lee).
- RANDY HASKELL HAMILTON, A.B., *Part-time Instructor in Political Science*
A.B., 1943 (North Carolina).
- PAUL D. HANEY, M.S., *Associate Professor of Sanitary Engineering*
B.S., 1933 (Kansas); M.S., 1937 (Harvard).
- FRANK WILLIAM HANFT, A.B., LL.M., S.J.D., *Professor of Law*
LL.B., 1924, A.B., 1929, LL.M., 1929 (Minnesota); S.J.D., 1931 (Harvard).

* Died August 28, 1946.

- WALTER ROY HARDING, B.S., *Part-time Instructor in English*
B.S., 1939 (Bridgewater State Teachers College).
- JACQUES HARDRÉ, A.M., *Instructor in French*
Bacc.Sciences-Langues, 1936 (Paris); A.B., 1937 (Guilford); A.M.,
1941 (North Carolina).
- JAMES PENROSE HARLAND, Ph.D., *Professor of Archaeology*
A.B., 1913, A.M., 1915, Ph.D., 1920 (Princeton).
- GUSTAVE A. HARRER III, *Instructor in German*
- JOHN WILBUR HARRINGTON, B.S. in Mining Eng'g., *Part-time In-*
structor in Geology
B.S. in Mining Eng'g., 1940 (Virginia Polytechnic Institute); S.M.
in Geology, 1946 (North Carolina).
- FREDERICK HOLLODAY HARRIS, JR., A.M., *Part-time Instructor in*
Political Science
A.B., 1934 (Randolph-Macon); A.M., 1943 (North Carolina).
- MAURICE ALTON HARTMAN, B.S., *Instructor in Accounting*
B.S., 1937 (High Point College).
- EARL HORACE HARTSELL, Ph.D., *Associate Professor of English*
A.B., 1924, A.M., 1935, Ph.D., 1942 (North Carolina).
- DORIS PARKER BULLARD HAWKINS, S.B. in Phar., *Instructor in*
Pharmacy
S.B. in Phar., 1945 (North Carolina).
- RUTH WARWICK HAY, M.S., *Professor of Public Health Nursing*
B.A., 1916 (Ohio Wesleyan); M.S., 1925 (Western Reserve).
- GLEN HAYDON, Ph.D., *Professor of Music*
A.B., 1918, M.A., 1921 (California); Ph.D., 1932 (Vienna).
- GLEN BERGFRIED HAYDON, *Part-time Instructor in Mathematics*
- DONALD BALES HAYMAN, A.B., *Part-time Instructor in Political*
Science
A.B., 1940 (Kansas).
- BUNN HEARN, *Instructor in Physical Education*
- MILTON SIDNEY HEATH, Ph.D., *Professor of Economics*
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).
- JOHN ROY HEGE, M.D., M.P.H., *Visiting Professor of Public*
Health Administration
A.B., 1913 (North Carolina); M.D., 1916 (Maryland); M.P.H., 1936
(Johns Hopkins).

- ARCHIBALD HENDERSON, Ph.D., D.C.L., LL.D., Litt.D., *Kenan Professor of Mathematics*
 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).
- HARRIET LAURA HERRING, A.M., *Associate Professor of Sociology and Research Associate in the Institute for Research in Social Science*
 A.B., 1913 (Meredith College); A.M., 1918 (Radcliffe).
- EDWIN PEELLE HIATT, Ph.D., *Associate Professor of Physiology*
 A.B., 1933 (Wilmington College); M.A., 1934 (Haverford); Ph.D., 1940 (Maryland).
- 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).
- MICHAEL ARENDELL HILL, JR., A.M., *Professor of Mathematics and Associate Dean of the General College*
 A.B., 1920, A.M., 1922 (North Carolina).
- ALLAN WILSON HOBBS, Ph.D., *Profesor 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).
- JAMES ROLAND HODGES, M.A., *Part-time Instructor in English*
 A.B., 1941, M.A., 1942 (Vanderbilt).
- ROBERT EDWIN HOLLINGER, A.B., *Part-time Instructor in English*
 A.B., 1945 (Davidson College).
- URBAN TIGNER HOLMES, JR., Ph.D., *Kenan Professor of Romance Philology*
 A.B., 1920 (Pennsylvania); A.M., 1921, Ph.D., 1923 (Harvard).
- GEORGE FREDERICK HORNER, Ph.D., *Associate Professor of English*
 A.B., 1921, M.A., 1924 (Pennsylvania State College); Ph.D., 1938 (North Carolina).
- FRANK LAWRENCE HOSKINS, JR., A.B., *Part-time Instructor in English*
 A.B., 1942 (North Carolina).

- HAROLD HOTELLING, Ph.D., *Professor of Mathematical Statistics and Associate Director, Institute of Statistics*
A.B., 1919, M.Sc., 1921 (University of Washington); Ph.D., 1924 (Princeton).
- HENRY CHARLES HOUSE, JR., A.M., *Assistant Professor of Physical Education*
A.B., 1931, A.M., 1943 (North Carolina).
- *ALMONTE CHARLES HOWELL, Ph.D., *Professor of English and Secretary of the Faculty*
A.B., 1917 (Denison); M.A., 1920 (Columbia); Ph.D., 1924 (North Carolina).
- VINTON ASBURY HOYLE, Ph.D., *Professor of Mathematics*
A.B., 1924, A.M., 1925 (North Carolina); Ph.D., 1930 (Princeton).
- PAO LU HSU, Ph.D., D.Sc., *Associate Professor of Mathematical Statistics*
B.Sc., 1933 (Tsinghua); Ph.D., 1938, D.Sc., 1940 (London).
- JOHN WARFIELD HUDDLE, Ph.D., *Professor of Geology*
B.S., 1929 (Northwestern); Ph.D., 1934 (Indiana).
- ARTHUR PALMER HUDSON, Ph.D., *Professor of English*
B.S., 1913, M.A., 1920 (Mississippi); A.M., 1925 (Chicago); Ph.D., 1930 (North Carolina).
- RHODA HUNTER, B.S., *Instructor in Radio*
B.S., 1943 (State Teachers College, Indiana, Pa.).
- †BEN HUSBANDS, A.B., *Registrar and Examiner*
A.B., 1927 (North Carolina).
- HOWARD RUSSELL HUSE, Ph.D., *Professor of French and Italian*
Ph.B., 1913, Ph.D., 1930 (Chicago).
- JOHN ELI IVEY, JR., Ph.D., *Associate Professor of Sociology and Director of the Division of Research Interpretation, Institute for Research in Social Science*
B.S., 1940 (Alabama Polytechnic Institute); Ph.D., 1944 (North Carolina).
- MARION LEE JACOBS, Ph.D., *Professor of Pharmaceutical Chemistry and Dean of the School of Pharmacy*
Ph.C., 1921 (North Carolina); B.S. Pharm., 1924, M.S., 1926 (Nebraska); Ph.D., 1937 (Maryland).
- RICHARD ELMER JAMERSON, M.A., *Associate Professor of Physical Education*
B.S. in Phys. Educa., 1932 (The Rice Institute); M.A. in Phys. Educa., 1934 (Teachers College, Columbia).
- HERMAN A. JARRELL, A.B., *Part-time Instructor in Physics*
A.B., 1941 (Catawba College).

* Absent on leave, 1946-1947.

† Absent on leave from May, 1944.

- GEORGE JENKINS, A.B., *Part-time Instructor in Physics*
A.B., 1943 (Berea College).
- JOSEPH WILLIAM JENKINS, A.B., *Part-time Instructor in Mathematics*
A.B., 1940 (Mercer).
- 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).
- ARTHUR VALDEMAR JENSEN, Ph.D., *Assistant Professor of Anatomy*
A.B., 1939 (Trinity College, Hartford, Conn.); M.A., 1940, Ph.D., 1943 (Cornell).
- RICHARD JENTE, Ph.D., *Professor of the 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).
- JOHN STANLEY JOHNSON, A.M., *Lecturer in Physics*
A.B., 1923 (Wake Forest College); A.M., 1942 (North Carolina).
- CLAIBORNE STRIBLING JONES, Ph.D., *Associate Professor of Zoology*
A.B., 1935 (Hampden-Sydney College); M.A., 1940, Ph.D., 1944 (Virginia).
- NICHOLAS TEYNAC JOOST, A.M., *Part-time Instructor in English*
B.S., 1938 (Georgetown); A.M., 1939 (North Carolina).
- ARTHUR MELVILLE JORDAN, Ph.D., *Professor of Educational Psychology*
A.B., 1907 (Randolph-Macon College); A.M., 1909 (Trinity College); Ph.D., 1919 (Columbia).
- KAI JURGENSEN, A.M., *Assistant Professor of Dramatic Art*
A.B., 1937 (Montana); A.M., 1943 (North Carolina).

* Absent on leave.

LOUIS OSGOOD KATTSOFF, Ph.D., *Associate Professor of Philosophy*

A.B., 1929, A.M., 1930, Ph.D., 1934 (Pennsylvania).

MARY FRANCES KELLAM, B.S., *Instructor in Physical Education*
B.S., 1944 (Woman's College, U. N. C.).

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).

JOHN FAWCETT KENFIELD, *Instructor in Physical Education*

JOHN WESLEY KENNEDY, A.M., *Instructor in Economics*

A.B., 1942, A.M., 1947 (Duke).

ARNOLD KIMSEY KING, A.M., *Professor of Education and Associate Dean of the Graduate School*

A.B. in Educ., 1925 (North Carolina); A.M., 1927 (Chicago).

*BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D., D.Sc., *Guest Professor of Anatomy*

A.B., 1893 (Butchtel College); M.S., 1894, Ph.D., 1895 (Cornell); M.D., 1904 (Freiburg); D.Sc. (Bowdoin).

CHARLES ATKINSON KIRKPATRICK, D.C.S., *Associate Professor of Marketing*

A.B., 1928, A.M., 1929 (Duke); D.C.S., 1933 (New York University).

†IRWIN CLARK KITCHIN, Ph.D., *Associate Professor of Zoology*

B.S., 1931 (Wake Forest College); Ph.D., 1935 (Freiburg).

DONALD STANLEY KLAISS, B.D., Ph.D., *Associate Professor of Sociology and Adviser in the General College*

A.B., 1928 (Eureka College); B.D., Ph.D., 1934 (Chicago).

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., *Associate Professor of Chemistry*

B.S., 1934 (Clemson College); S.M., 1937, Ph.D., 1938 (North Carolina).

MARGARET LEINBACH KOLB, M.A., *Instructor in Music*

A.B., 1943 (Salem College); M.A., 1946 (Columbia).

FRANK JOSEPH KOTKE, Ph.D., *Associate Professor of Economics*

A.B., 1937, M.A., 1938 (Northwestern); Ph.D., 1944 (Columbia).

HELMUT KUHN, Ph.D., *Professor of Philosophy*

Ph.D., 1923 (Breslau).

GRANVIL CHARLES KYKER, Ph.D., *Associate Professor of Biological Chemistry and Nutrition*

B.S., 1932 (Carson-Newman College); Ph.D., 1938 (North Carolina).

* Died July 8, 1946.

† Absent on leave, 1946-1947.

- GEORGE SHERMAN LANE, Ph.D., *Professor of Germanic and Comparative Linguistics*
B.A., 1926, M.A., 1927 (Iowa); Ph.D., 1930 (Chicago).
- HELEN BYRNES LANNEAU, A.B., *Part-time Instructor in Latin*
A.B., 1944 (North Carolina).
- JOHN EDGAR LARSH, JR., Sc.D., *Associate 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).
- *GEORGE HAROLD LAWRENCE, A.M., *Associate Professor of Social Work*
A.B., 1919 (Columbia); A.M., 1928 (North Carolina).
- ROBERT BAKER LAWSON, M.D., *Associate Professor of Physical Education*
Student, 1897-1900 (North Carolina); M.D., 1902 (Maryland).
- SAMUEL RICHARDSON LEAGER, B.S., LL.B., *Assistant Director of the Institute of Government*
B.S., 1936, LL.B., 1941 (North Carolina).
- MARJORIE BASON LEAN, A.B., *Instructor in Psychology*
A.B., 1945 (Woman's College of the U. N. C.).
- MARTIN EDWIN LEAN, A.B., M.A., *Assistant Professor of Philosophy*
A.B., 1940 (Central College, Chicago); M.A., 1942 (University of Nebraska).
- JOSEPH MERRITT LEAR, M.A., *Professor of Insurance*
A.B., 1900, A.M., 1902 (Randolph-Macon College); M.A., 1915 (Columbia).
- STURGIS ELLENO LEAVITT, Ph.D., Litt.D., *Kenan Professor of Spanish*
A.B., 1908 (Bowdoin College); A.M., 1913, Ph.D., 1917 (Harvard); Litt.D. (Bowdoin College, Davidson College).
- †HERBERT G. LEE, B.S., *Part-time Instructor in English*
B.S., 1941 (Western North Carolina Teachers College).
- HUGH TALMAGE LEFLER, Ph.D., *Professor of History*
A.B., 1921, A.M., 1922 (Trinity College); Ph.D., 1931 (Pennsylvania).
- GEORGE EIDT LENT, B.S., M.B.A., *Acting Associate Professor of Economics*
B.S., 1934, M.B.A., 1935 (Rensselaer Polytechnic Institute).
- HENRY WILKINS LEWIS, A.B., LL.B., *Assistant Director of the Institute of Government*
A.B., 1937 (North Carolina); LL.B., 1940 (Harvard).

* Absent on leave, 1946-1947.

† Fall and winter quarters, 1946-1947.

- *ROBERT GUILFORD LEWIS, A.M., *Instructor in French*
A.B., 1936, A.M., 1939 (North Carolina).
- ROBERT WILSON LIDE, B.S., *Part-time Instructor in Physics*
B.S., 1943 (Wake Forest College).
- JOE BURTON LINKER, Ph.D., *Professor of Mathematics*
A.B., 1918, A.M., 1920 (North Carolina); Ph.D., 1924 (Johns Hopkins).
- JOE BURTON LINKER, JR., S.B., *Part-time Instructor in Mathematics*
S.B., 1944 (North Carolina).
- ROBERT WHITE LINKER, Ph.D., *Associate Professor of French*
A.B., 1925, A.M., 1928, Ph.D., 1933 (North Carolina).
- CHESTER CROWELL LITTLE, A.B., *Assistant Football Coach and Instructor in Physical Education*
A.B., 1938 (North Carolina).
- ROBERT A. LIVELY, A.B., *Instructor in Social Science*
A.B., 1943 (Birmingham-Southern).
- ARTHUR HILL LONDON, S.B., M.D., *Lecturer in Pediatrics*
S.B., 1925 (North Carolina); M.D., 1927 (Pennsylvania).
- DONALD WOODS LOOMIS, B.S., *Captain, U. S. Navy, Professor of Naval Science and Tactics*
B.S., 1918 (U. S. Naval Academy).
- MARJORIE JOHNSTON LOVE, A.B., *Part-time Instructor in English*
A.B., 1940 (Bessie Tift College).
- SAM LYERLY, A.B., *Instructor in Psychology*
A.B., 1940 (North Carolina).
- RICHARD SHERMAN LYMAN, A.B., M.D., *Consulting Research Professor of Psychiatry in the Institute for Research in Social Science*
A.B., 1913 (Yale); M.D., 1921 (Johns Hopkins).
- CLIFFORD PIERSON LYONS, Ph.D., *Professor of English*
A.B., 1925 (Cornell College); Ph.D., 1932 (Johns Hopkins).
- JOHN CORIDEN LYONS, Ph.D., *Professor of French*
B.S., 1920, M.A., 1921 (College of William and Mary); Ph.D., 1927 (North Carolina).
- JAMES GRAY McALLISTER, JR., A.M., *Instructor in Mathematics*
B.S., 1930 (Hampden-Sydney College); A.M., 1931 (Duke).
- FREDERICK BAYS McCALL, A.B., LL.B., *Professor of Law*
A.B., 1915 (North Carolina); LL.B., 1928 (Yale).
- GERALD RALEIGH MACCARTHY, Ph.D., *Professor of Geology and Geophysics*
A.B., 1921 (Cornell); A.M., 1924, Ph.D., 1926 (North Carolina).

* Absent on leave in military service.

- *ROLAND PRINCE McCLAMROCH, Ph.D., *Associate Professor of English*
A.B., 1920, A.M., 1922, Ph.D., 1927 (North Carolina).
- JOSEPH PICKETT McCracken, M.D., *Instructor in Medicine*
M.D., 1937 (Duke).
- JOSEPH THOMAS McCullen, A.M., *Part-time Instructor in English*
A.B., 1937, A.M., 1939 (North Carolina).
- DOROTHY DANIEL McCULLOUGH, M.A., *Part-time Instructor in English*
A.B., 1942 (Georgia); M.A., 1943 (Wellesley).
- RAYMOND RALPH MACCURDY, JR., A.M., *Instructor in Spanish*
A.B., 1939, A.M., 1941 (Louisiana).
- WILLIAM BENSON McCUTCHEON, M.D., *Lecturer in Surgery*
M.D., 1921 (Medical College of Virginia).
- EDWARD G. MCGAVRAN, 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).
- ROBERT EARLE MCGEE, B.A., *Part-time Instructor in English*
A.B., 1929 (Southwestern); B.A., 1933 (Queens College, Oxford).
- 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).
- ROBERT LAMBERT MCKEE, Ph.D., *Assistant Professor of Chemistry*
B.S., 1938 (Rice Institute); 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 Students*
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).
- WILLIAM ALBERT MCKNIGHT, A.M., *Instructor in Spanish*
B.S., 1932 (Davidson); A.M., 1937 (North Carolina).
- MURIEL McLAUHLIN, A.B., M.S.W., *Associate Professor of Social Work*
A.B., 1923 (California); M.S.W., 1937 (Pennsylvania School of Social Work).

* Absent on leave, 1946-1947.

- JOHN BLOUNT MACLEOD, A.B., LL.B., *Instructor in Social Science*
LL.B., 1922 (Wake Forest College); A.B., 1939 (North Carolina).
- DOUGALD MACMILLAN, Ph.D., *Professor of English*
A.B., 1918, A.M., 1920, Ph.D., 1925 (North Carolina).
- HERBERT STEED MCNAIRY, A.B., *Part-time Instructor in English*
A.B., 1942 (North Carolina).
- WILLIAM DEBERNIERE MACNIDER, M.D., Sc.D., LL.D., *Kenan Research Professor of Pharmacology*
M.D., 1903 (North Carolina); Sc.D. (Medical College of Va.); LL.D. (Davidson).
- GWYNN MCPEEK, M.M., *Instructor in Music*
B.S., 1938 (Ohio State); M.M., 1942 (Indiana).
- *DEAN WILIAM MCPHEETERS, M.A., *Instructor in Spanish*
B.S., 1940 (Illinois); M.A., 1941 (Florida).
- DANIEL ALLAN MACPHERSON, Ph.D., *Professor of Bacteriology*
Ph.B., 1919, Sc.M., 1920 (Brown); Ph.D., 1929 (Chicago).
- JOHN WILSON McREYNOLDS, B.A., *Instructor in Journalism*
B.A., 1946 (Centenary College of Louisiana).
- KENNETH MARTIN MACRORIE, A.B., *Part-time Instructor in English*
A.B., 1940 (Oberlin College).
- WILLIAM GREGORY MADOW, Ph.D., *Associate Professor of Mathematical Statistics*
A.B., 1932, A.M., 1933, Ph.D., 1938 (Columbia).
- HAROLD JOSEPH MAGNUSON, M.D., M.P.H., *Research Professor of Experimental Medicine*
A.B., 1934, M.D., 1938 (Southern California); M.P.H., 1942 (Johns Hopkins).
- DAVID HENRY MALONE, A.B., *Part-time Instructor in English*
A.B., 1940 (North Carolina).
- †ISAAC HALL MANNING, M.D., *Kenan Professor Emeritus of Physiology*
Student, 1882-1886 (North Carolina); M.D., 1897 (Long Island College of Medicine).
- ISAAC HALL MANNING, JR., A.B., M.D., *Instructor in Medicine*
A.B., 1931 (North Carolina); M.D., 1935 (Harvard).
- WILLIAM J. MANNING, B.S., *Lieut. Comdr., U. S. Navy, Assistant Professor of Naval Science*
B.S., 1939 (U. S. Naval Academy).
- EDWIN CARLYLE MARKHAM, Ph.D., *Professor of Chemistry*
A.B., 1923 (Trinity College); Ph.D., 1927 (Virginia).

* Resigned, December 31, 1946.

† Died February 12, 1946.

- NELSON MARSHALL, Ph.D., *Associate Professor of Zoology*
B.S., 1937 (Rollins College); M.S., 1938 (Ohio State); Ph.D., 1941 (Florida).
- WILLIE JOSEPHINE MATHIS, A.B., *Instructor in Social Science*
A.B., 1946 (Coker College).
- HAROLD DIEDRICH MEYER, A.M., LL.D., *Professor of Sociology*
A.B., 1912, A.M., 1916 (Georgia); LL.D. (Florida Southern College).
- AUGUSTUS TAYLOR MILLER, JR., Ph.D., *Associate Professor of Physiology and Physical Education*
B.S., 1931, M.S., 1933 (Emory); Ph.D., 1939 (Michigan).
- JUAN MIRANDA, *Instructor in Spanish*
- HILDA MARIAN MOORE, A.B., *Part-time Instructor in Mathematics*
A.B., 1945 (East Carolina Teachers College).
- JOHN AIKEN MOORE, B.S., *Instructor in Spanish*
B.S., 1942 (Davidson).
- LUCY SHIELDS MORGAN, Ph.D., *Professor of 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).
- AILENE MORRIS, M.S., *Instructor in Psychology*
A.B., 1944, M.S., 1945 (Oklahoma).
- JOSEPH L. MORRISON, A.B., *Assistant Professor of Journalism*
A.B., 1940 (North Carolina).
- ROY WILLIAM MORRISON, Ph.D., *Professor of Elementary Education*
A.B., 1916 (Davidson); Ph.D., 1928 (North Carolina).
- ERNEST MORWITZ, Dr. jur., *Instructor in German*
Dr. juris utriusque, 1910 (Heidelberg).
- MILLER MOSELEY, A.B., *Part-time Instructor in Physics*
A.B., 1943 (Texas Christian).
- WALTER LAUREN MOSES, A.M., *Part-time instructor in English*
A.B., 1928, A.M., 1933 (North Carolina).
- OLIN TERRELL MOUZON, Ph.D., *Associate Professor of Economics*
B.S. in Commerce, 1933 (Southern Methodist); Ph.D., 1940 (North Carolina).
- EDWARD FRANCIS MOYER, A.M., *Instructor in French*
A.B., 1936, A.M., 1937 (North Carolina).
- CLYDE EDWARD MULLIS, A.M., *Assistant Professor of Physical Education*
A.B., 1938, A.M., 1940 (North Carolina).

- HOWARD FREDERICK MUNCH, A.M., *Professor of Education, Instructor in Mathematics*
B.S., 1904 (Adrian College); A.M., 1926 (Chicago).
- JOHN RUSSELL MURPHY, M.A., *Assistant Football Coach and Instructor in Physical Education*
A.B., 1928 (Colorado); M.A., 1935 (Teachers College, Columbia).
- JOHN VERNON MYERS, M.A., *Instructor in French*
B.A., 1938 (Wake Forest); M.A., 1940 (Syracuse).
- KENNETH NESS, *Resident Artist and Associate Professor of Art*
- EARL HOLLAND NEWCOMER, Ph.D., *Associate Professor of Botany*
B.A., 1932 (Columbia); M.A., 1935 (California); Ph.D., 1938 (Pennsylvania State College).
- JOHN BROWNIE NEWMAN, B.S., *Part-time Instructor in Physics*
B.S., 1944 (North Carolina).
- WILLIAM S. NEWMAN, Ph.D., *Assistant 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 E. NICHOLSON, JR., A.M., *Part-time Instructor in Mathematics*
A.M., 1941 (North Carolina).
- JOSEPH RICHARD NICKSON, A.B., *Part-time Instructor in English*
A.B., 1946 (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).
- HELEN FRANCES O'KELLEY, A.B., *Part-time Instructor in Mathematics*
A.B., 1945 (Vanderbilt).
- HENRY MADISON OLIVER, JR., Ph.D., *Associate Professor of Economics*
A.B., 1934 (Southwestern); M.A., 1936, Ph.D., 1939 (Duke).
- WILLIAM ANDERSON OLSEN, A.M., *Professor of English*
A.B., 1923 (Cornell); A.M., 1928 (North Carolina).
- DAVID OLSON, Ph.D., *Visiting Lecturer in Geology and Geography*
A.B., 1902 (Michigan); M.S., 1909 (Wisconsin); Ph.D., 1931 (Western Reserve).
- ROBERT STEVENS OSBORNE, A.M., *Part-time Instructor in English*
A.B., 1935 (Denver); A.M., 1940 (North Carolina).

* Absent on leave, 1946-1947.

- CAROLINA JENNINGS PACE, A.M., *Part-time Instructor in English*
A.B., 1940 (Furman); A.M., 1942 (North Carolina).
- CLIFFORD EDNEY PACE, A.B., LL.B., *Assistant Director of the Institute of Government*
A.B., 1939, LL.B., 1942 (North Carolina).
- HOWARD PAGE, M.A., *Instructor in Psychology*
M.A., 1946 (Florida).
- GREGORY LANSING PAINE, Ph.D., *Professor of English*
Ph.B., 1914, A.M., 1920, Ph.D., 1924 (Chicago).
- J. ROY PARKER, A.B., *Professor of Journalism*
A.B., 1915 (Wake Forest College).
- JOHN ALBERT PARKER, S.B., M.Arch., M.C.P., *Professor of Planning and Chief of the Division of Regional Planning in the Institute for Research in Social Science*
S.B., 1931, M. Arch., 1933, M.C.P., 1946 (Massachusetts Institute of Technology).
- JOHN WILLIAM PARKER, A.M., *Associate Professor of Dramatic Art*
A.B. in Educ., 1930, A.M., 1937 (North Carolina).
- WOODROW WILSON PATE, A.M., *Instructor in Economics*
A.B., 1936 (Henderson State); A.M., 1938 (Louisiana State).
- FREDERICK GEER PATTERSON, A.B., M.D., *Instructor in Medicine*
A.B., 1933 (North Carolina); M.D., 1937 (Pennsylvania).
- ROBERT EPRON PATTON, A.B., *Lieutenant, USNR, Assistant Professor of Naval Science and Tactics*
A.B., 1941 (New York State College for Teachers).
- JAMES SINGLETON PATTY, A.B., *Instructor in French*
A.B., 1945 (North Carolina).
- EDWARD PAULSON, M.A., *Instructor in Mathematical Statistics*
B.A., 1936 (Brooklyn); M.A., 1938 (Columbia).
- MARIE LOUISE PEACHEE, A.B., *Instructor in Psychology*
A.B., 1946 (Richmond).
- ERLE EWART PEACOCK, A.B., 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., *Assistant Professor of Physical Education*
A.B., 1932 (Maryville College); A.M., 1940, Ph.D., 1945 (North Carolina).
- JOHN HUNTER PEAK, A.B., *Instructor in Spanish*
A.B., 1941 (Hampden-Sydney).
- CARL HAMILTON PEGG, Ph.D., *Professor of History*
A.B. in Educ., 1927, A.M., 1927, Ph.D., 1929 (North Carolina).

- 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).
- GUY BERRYMAN PHILLIPS, M.A., *Professor of Education, Director of the Summer School, and Director 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., *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).
- WILLIAM HOWARD PLEMMONS, Ph.D., *Associate Professor of Education*
A.B., 1928 (Wake Forest College); A.M., 1935 (Duke); Ph.D., 1943 (North Carolina).
- JAMES EDWARD POINDEXTER, M.A., *Part-time Instructor in English*
A.B., 1937 (North Carolina); M.A., 1938 (Emory).
- GEORGE WAVERLY POLAND, JR., M.A., *Instructor in Spanish*
A.B., 1936 (College of William and Mary); M.A., 1939 (Brown);
Diploma (Salamanca).
- LEON M. POLLANDER, *Lecturer in Journalism*
- CARLETON ESTEY PRESTON, Ph.D., *Professor Emeritus of Education*
A.B., 1899, A.M., 1900, Ph.D., 1902 (Harvard).
- *WILLIAM MEADE PRINCE, *Lecturer in Art*
- WILLIAM FREDERICK PROUTY, Ph.D., *Professor of Economic and Structural Geology*
B.S., 1903, M.S., 1904 (Syracuse); Ph.D., 1906 (Johns Hopkins).
- PERCY HALL QUINLAN, B.P.E., *Instructor in Physical Education*
B.P.E., 1919 (Springfield College).
- WALTER WAGNER RABB, A.M., *Assistant Professor of Physical Education*
B.S., 1937 (North Carolina State College of A. and E.); A.M. in Educ., 1941 (North Carolina).
- ALBERT ERNEST RADFORD, B.S., *Instructor in Botany*
B.S., 1939 (Furman).
- †WILLIAM SPEARS RANDALL, A.B., M.D., *Instructor in Pathology*
A.B., 1933 (Alabama); M.D., 1937 (Tulane).

* Absent on leave.

† Resigned, February 15, 1947.

- 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).
- HORACE WILSON RAPER, A.B., *Instructor in Social Science*
A.B., 1939 (North Carolina).
- JOHN MAXWELL REED, A.B., *Assistant Football Coach and Instructor in Physical Education*
A.B., 1924 (Bucknell).
- JESSIE REHDER, M.A., *Part-time Instructor in English*
A.B., 1929 (Randolph Macon); M.A., 1931 (Columbia).
- JOSEPH WRIGHT REID, JR., A.M., *Part-time Instructor in Political Science*
A.B., 1938, A.M., 1939 (Louisiana State).
- CARL VERNON REYNOLDS, M.D., *Associate Professor of Public Health*
M.D., 1895 (Univ. of the City of New York).
- JOHN O. REYNOLDS, A.M., *Lecturer in Mathematics*
B.S., 1925 (Guilford College); A.M., 1940 (North Carolina).
- THOMAS LEE REYNOLDS, B.S., *Part-time Instructor in Mathematics*
B.S., 1938 (Guilford College).
- IRVING RIBNER, A.B., *Part-time Instructor in English*
A.B., 1941 (Brooklyn College); A.B., 1944 (North Carolina).
- JAMES GRUNDY RICE, A.M., *Part-time Instructor in English*
A.B., 1936 (Tennessee); A.M., 1942 (North Carolina).
- *OSCAR KNEFLER RICE, Ph.D., *Professor of Chemistry*
B.S., 1924, Ph.D., 1926 (California).
- ALLAN RENE RICHARDS, A.M., *Part-time Instructor in Political Science*
A.B., 1939, A.M., 1941 (Colorado).
- WILLIAM PERRY RICHARDSON, M.D., M.P.H., *Associate Professor of Public Health Administration*
A.B., 1926 (Wake Forest College); M.D., 1928 (Virginia); M.P.H. (Johns Hopkins).
- BERNARD BRUNO RIEDEL, Ph.D., *Instructor in Public Health*
A.B., 1942 (Kansas State Teachers College); M.S., 1944, Ph.D., 1946 (Kansas State College).
- JOHN BUNYAN RIGGSBEE, A.B., M.D., *Instructor in Anatomy*
A.B., 1939 (North Carolina); M.D., 1943 (Vanderbilt).

* Absent on leave, 1946-1947.

- FRED LEWIS RIGHTS, M.S., *Assistant Professor of Bacteriology*
B.S. in Chem. Eng., 1933, M.S. in Bacteriology, 1935 (Lehigh).
- HERBERT ELLIS ROBBINS, Ph.D., *Associate Professor of Mathematical Statistics*
A.B., 1935, A.M., 1936, Ph.D., 1938 (Harvard).
- STANLEY LINN ROBE, M.A., *Instructor in Spanish*
B.A., 1936, M.A., 1939 (Oregon).
- WILLIAM PITTMAN ROBERTS, A.M., *Instructor in Social Science*
A.B., 1942 (Emory); A.M., 1943 (North Carolina).
- LENNOX ROBINSON, *Visiting Lecturer in Dramatic Art*
- 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., *Associate Professor of Organic Chemistry*
A.B., 1933 (Oberlin College); M.A., 1935 (Colorado College); Ph.D., 1938 (Northwestern).
- FRED TERRY ROGERS, JR., Ph.D., *Associate Professor of Physics*
B.A., 1935, M.A., 1936, Ph.D., 1939 (Rice).
- MICHAEL Z. RONMAN, Ed.M., *Instructor in Physical Education*
B.S., 1935, Ed.M., 1938 (Pennsylvania State College).
- IRA WINFIELD ROSE, Ph.G., *Professor of Practical Pharmacy*
Ph.G., 1906 (North Carolina).
- NATHAN ROSEN, Sc.D., *Professor of Physics*
S.B., 1929, S.M., 1930, Sc.D., 1932 (Mass. Inst. of Tech.).
- *MILTON JOSEPH ROSENAU, M.D., A.M., *Professor of Epidemiology and Dean of the School of Public Health*
M.D., 1889 (Pennsylvania); student (Hygienische Institut, Berlin, 1892-1893; L'Institut Pasteur, Paris, 1900; Pathologisches Institut, Vienna, 1900); Hon.A.M. (Harvard).
- SAMUEL ALAN ROSENBERG, M.B.A., *Instructor in Economics*
B.B.A., 1929, M.B.A., 1931 (Boston).
- 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.S., 1922 (Pennsylvania).
- HANS ROTHE, *Visiting Lecturer in Dramatic Art*
- 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).

* Died April 9, 1946.

- 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 WINKLER RYAN, JR., B.S., *Instructor in Social Science*
B.S., 1940 (College of Charleston).
- *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).
- ALBERT NEELY SANDERS, A.B., *Instructor in Social Science*
A.B., 1934 (Furman).
- WILEY BRITTON SANDERS, Ph.D., *Professor of Social Work*
A.B., 1919. A.M., 1920 (Emory); A.M., 1921 (North Carolina); Ph.D., 1929 (Chicago).
- JAMES TERRY SANFORD, A.B., LL.B., *Assistant Director of the Institute of Government*
A.B., 1939, LL.B., 1946 (North Carolina).
- FRANK WENDELL SAUNDERS, A.M., *Part-time Instructor in Mathematics*
A.M., 1946 (North Carolina).
- SANDRA UELAND SAUNDERS, A.M., *Instructor in Social Science*
A.B., 1943 (Minnesota); A.M., 1944 (Indiana).
- JOSEPH PETER SAWYER, A.B., LL.B., *Part-time Instructor in Political Science*
A.B., 1936, LL.B., 1939 (Georgetown).
- HERMAN MAX SCHIEBEL, A.B., M.D., *Lecturer in Surgery*
M.D., 1933 (Hopkins).
- JAN PHILIP SCHINHAN, Ph.D., *Professor of Music*
A.B., 1931, M.A., 1933 (California); Ph.D., 1937 (Vienna).
- ALLAN GEORGE SCHNABLE, B.S., *Commander, U. S. Navy, Associate Professor of Naval Science*
B.S., 1934 (U. S. Naval Academy).
- GUSTAV THEODOR SCHWENNING, Ph.D., *Professor of Business Administration*
B.H., 1920 (Springfield); M.A., 1921, Ph.D., 1925 (Clark).
- DAVID HAMILTON SCOTT, A.B., M.B.A., LL.B., *Assistant Director of Institute of Government*
A.B., 1936 (North Carolina); M.B.A., 1938, LL.B., 1941 (Harvard).

* Absent on leave, fall quarter 1946.

- THOMAS ELISHA SCOTT, JR., A.M., *Instructor in French*
A.B., 1937 (Emory); A.M., 1938 (North Carolina).
- STUART WILSON SECHRIEST, A.B., *Assistant Professor of Journalism*
A.B., 1925 (North Carolina).
- SAMUEL SELDEN, A.B., *Professor of Dramatic Art and Director of The Carolina Playmakers*
A.B., 1922 (Yale).
- LAWRENCE ALBRIGHT SHARPE, A.B., *Instructor in Spanish*
A.B., 1940 (North Carolina).
- 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).
- ROBERT SCHENKKAN, A.M., *Special Lecturer in Radio*
A.B., 1941 (Virginia); A.M., 1946 (North Carolina).
- FREDERICK CARLYLE SHEPARD, Ph.D., *Adviser to Veterans and Vocational Counsellor to Men*
A.B., 1921, M.A., 1926, Ph.D., 1938 (North Carolina).
- GEORGE EDWARD SHEPARD, M.A., *Associate Professor of Physical Education*
B.S., 1929 (North Carolina); M.A., 1940 (Columbia).
- ROBERT HOWARD SHERRILL, M.A., C.P.A., *Associate Professor of Accounting*
S.B.Comm., 1925 (North Carolina); M.A., 1927 (Columbia); C.P.A. (State of North Carolina).
- *HAZEL MORRELL SHIRING, A.B., A.B. in L.S., *Instructor in Library Science and Librarian of the School of Library Science*
A.B., 1930 (Skidmore College); A.B. in L.S., 1937 (North Carolina).
- RINALDO CHARLES SIMONINI, A.M., *Part-time Instructor in English*
A.B., 1943 (Johns Hopkins); A.M., 1946 (North Carolina).
- JOSEPH CARLYLE SITTERSON, Ph.D., *Associate Professor of History*
A.B., 1931, A.M., 1932, Ph.D., 1937 (North Carolina).
- DOUGLAS HEBER SLICER, A.M., *Part-time Instructor in English*
A.B., 1939 (Randolph-Macon College); A.M., 1941 (North Carolina).
- THOMAS RAIKES SLINKARD, B.S., *Instructor in Social Science*
B.S., 1942 (Middle Tennessee State College).

- EARL ANDERSON SLOCUM, M.M., *Professor of Music*
B.Mus., 1931, M.M., 1936 (Michigan).
- IRENE SMART, *Instructor in Dramatic Art*
- CARL MANEVAL SMITH, B.S. in Chem. Eng'g., A.M., *Instructor in Mathematics*
B.S. in Chem. Eng'g., 1933 (High Point College); A.M., 1943 (North Carolina).
- JAMES MONROE SMITH, JR., A.M., *Instructor in French*
A.B., 1938 (Louisiana); A.M., 1941 (North Carolina).
- JOHN PARKS SMITH, B.S., *Instructor in Accounting*
B.S., 1941 (Davidson).
- LAWRENCE W. SMITH, JR., A.B.J., *Captain, U. S. Marine Corps, Assistant Professor of Naval Science*
A.B.J., 1940 (Georgia).
- RUBY ARDEN SMITH, M.D., *Assistant University Physician and Instructor in Medicine*
M.D., 1940 (Maryland).
- CARL GREY SNAVELY, M.A., *Head Coach of Football*
A.B., 1915 (Lebanon Valley College); M.A., 1933 (Bucknell).
- JOHN LESLIE SNELL, JR., A.B., *Instructor in Social Science*
A.B., 1946 (North Carolina).
- CLEMENS SOMMER, Ph.D., *Associate Professor of the History of Art*
Ph.D., 1919 (Freiburg).
- WALTER SPEARMAN, A.M., *Associate Professor of Journalism*
A.B., 1929, A.M., 1937 (North Carolina).
- CORYDON PERRY SPRUILL, JR., A.B., B.Litt. (Oxon.), *Professor of Economics and Dean of the General College*
A.B., 1920 (North Carolina); B.Litt., 1922 (Oxford).
- JULIA CHERRY SPRUILL, A.M., *Instructor in Social Science*
A.B., 1920 (Woman's College of the U. N. C.); A.M., 1923 (North Carolina).
- HERMAN HENRY STAAB, M.A., *Associate Professor Emeritus of Romance Languages*
B.A., M.A., 1912 (University of the South).
- MRS. MARVIN HENDRIX STACY, *Dean Emeritus of Women*
Graduate, 1907 (N. C. State Normal and Industrial College).
- 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).
- WARREN GEORGE STEEL, S.B., *Part-time Instructor in Geology and Geography*
S.B., 1946 (North Carolina).

- STERLING AUBREY STOUDEMIRE, Ph.D., *Professor of Spanish*
A.B., 1923, A.M., 1924, Ph.D., 1930 (North Carolina).
- DAN HARRINGTON STOUT, A.B., *Instructor in Social Science*
A.B., 1940 (North Carolina).
- 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., *Instructor in Bacteriology*
B.S., 1935 (Penn. State Teachers College); M.S., 1940 (Cornell).
- ROBERT HAMMOND STRAYHORN, S.B.Comm., *Instructor in Physical Education*
S.B.Comm., 1938 (North Carolina).
- *WILLIAM E. STRICKLAND, A.M., *Instructor in French*
A.B., B.S., 1940 (Southern College); A.M., 1942 (North Carolina).
- WALTER JAMES STUART, JR., *Part-time Instructor in Mathematics*
- OTTO STUHLMAN, JR., Ph.D., *Professor of Physics*
B.A., 1907 (Cincinnati); M.A., 1909 (Illinois); Ph.D., 1911 (Princeton).
- ALBERT IRVING SUSKIN, Ph.D., *Assistant Professor of Latin*
A.B. in Educ., 1931, A.M., 1932, Ph.D., 1937 (North Carolina).
- WILLIAM OWEN SHEPPARD SUTHERLAND, JR., A.B., *Part-time Instructor in English*
A.B., 1942 (North Carolina).
- †BENJAMIN FRANKLIN SWALIN, Ph.D., *Associate Professor of Music*
B.S., 1928, M.A., 1930 (Columbia); Graduate, 1930 (Institute of Musical Art, New York); Graduate, 1932 (Hochschule für Musik und Kapellmeisterschule, Vienna); Ph.D., 1932 (Vienna).
- GEORGE COFFIN TAYLOR, Ph.D., Litt.D., *Kenan Professor of English*
A.B., 1897 (South Carolina); A.M., 1899 (Harvard); Ph.D., 1906 (Chicago); Litt.D. (South Carolina).
- HERMAN ORA THOMPSON, Ph.D., *Associate Professor of Pharmacy*
S.B. in Phar., 1937 (North Carolina); M.S., 1940, Ph.D., 1944 (Purdue).
- ARTHUR L. THROCKMORTON, A.B., *Instructor in Social Science*
A.B., 1940 (York College).
- JAMES STERLING TIPPETT, B.S., *Visiting Lecturer in Extension Teaching*
B.S., 1915 (Missouri).

* Absent on leave, fall quarter, 1946.

† Absent on leave.

- HENRY ROLAND TOTTEN, Ph.D., *Professor of Botany*
A.B., 1913, A.M., 1914, Ph.D., 1923 (North Carolina).
- RALPH MCCOY TRIMBLE, B.C.E., S.M., *Professor of Applied Mathematics*
B.C.E., 1921 (Virginia); S.M., 1927 (North Carolina).
- ELBERT DAYMOND TURNER, A.M., *Instructor in Spanish*
A.B., 1937 (Davidson); A.M., 1939 (North Carolina).
- EUNICE NICKERSON TYLER, Ph.D., *Associate Professor of Public Health Education*
Ph.B., 1931 (Brown); C.P.H., 1933, Ph.D., 1946 (Yale).
- J. F. TYNAN, A.B., M.B.A., *Lieut. Comdr., SC, U. S. Navy, Assistant Professor of Naval Science*
A.B., 1938, M.B.A., 1940 (Harvard).
- SHEPPARD YOUNG TYREE, JR., Ph.D., *Assistant Professor of Chemistry*
B.S., 1942, Ph.D., 1946 (Massachusetts Institute of Technology).
- BERTHOLD LOUIS ULLMAN, Ph.D., *Kenan Professor of the 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).
- MAURICE TAYLOR VAN HECKE, Ph.B., J.D., *Professor of Law*
Ph.B., 1916, J.D., 1917 (Chicago).
- WALTER WEDDLE VAUGHAN, A.B., M.D., *Lecturer in Radiographic Anatomy*
A.B., 1929 (North Carolina); M.D., 1933 (Jefferson Medical College).
- ANATOLE BORIS VOLKOV, *Part-time Instructor in Mathematics*
- MARY JO WADE, B.S., *Instructor in Psychology*
B.S., 1938 (Millersville State Teachers College).
- 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 College); Ph.D., 1927 (North Carolina).
- *HENRY MCGILBERT WAGSTAFF, Ph.D., *Professor of History*
Ph.B., 1899 (North Carolina); Ph.D., 1906 (Johns Hopkins).

* Died May 27, 1945.

- JAMES WILSON WALKER, A.B., *Part-time Instructor in Mathematics*
A.B., 1943 (North Carolina).
- LILA PECK WALKER, A.M., *Part-time Instructor in Mathematics*
A.B., 1942 (Agnes Scott); A.M., 1944 (North Carolina).
- PHILIP ALFRED WALKER, M.A., *Instructor in Social Science*
A.B., 1940 (North Carolina); M.A., 1942 (Emory).
- *HELEN DENHAM WALLER, A.B., M.A., B.S., *Visiting Instructor in Library Science*
A.B., 1913 (Mount Holyoke College); M.A., 1935 (Teachers College, Columbia University); B.S., 1928 (School of Library Service, Columbia University).
- JAMES MUIR WALLER, M.A., LL.B., *Instructor in Economics*
A.B., 1922 (Vanderbilt); LL.B., 1924 (Yale); M.A., 1927 (Vanderbilt).
- DON H. WALTHER, A.M., *Instructor in Spanish and Portuguese*
A.B., 1938 (Miami University); A.M., 1940 (North Carolina).
- ARTHUR WALTNER, M.S., *Part-time Instructor in Physics*
A.B., 1938 (Bethel College); M.S., 1941 (Kansas State College).
- JOAN WAX, A.B., *Part-time Instructor in Physiology*
A.B., 1943 (Wayne University).
- FREDERICK HENRY WEAVER, A.B., *Dean of Men*
A.B., 1937 (North Carolina).
- 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 and Research Associate in the Institute for Research in Social Science*
A.B. in Architecture, 1937 (California); M.C.P., 1946 (Massachusetts Institute of Technology).
- JAMES WILSON WEBB, A.M., *Part-time Instructor in English*
B.S., 1933 (Mississippi State College); A.M., 1946 (North Carolina).
- †R. A. WELLS, A.B., *Lieutenant, U. S. Navy, Assistant Professor of Naval Science*
A.B., 1941 (Cornell).
- WILLIAM SMITH WELLS, Ph.D., *Professor of English and Dean of the College of Arts and Sciences*
A.B., 1929, A.M., 1930 (Southern California); Ph.D., 1935 (Stanford).
- ALPHA B. WETTACH, M.A., *Lecturer in Psychology*
A.B., 1917 (Pittsburgh); M.A., 1923 (Columbia); Diploma in Mental Hygiene, 1924 (New York School of Social Work).

* Fall quarter, 1946.

† Detached, December 23, 1946.

- ROBERT HASLEY WETTACH, M.A., LL.B., S.J.D., *Professor of Law and Dean of the School of Law*
A.B., 1913, M.A., 1914, LL.B., 1917 (Pittsburgh); S.J.D., 1921 (Harvard).
- *ROBERT JAMES WHERRY, Ph.D., *Professor of Psychology*
B.S., 1925, M.A., 1927, Ph.D., 1929 (Ohio State).
- RICHARD ARNOLD WHITE, *Instructor in Physical Education*
- TAUL BRADFORD WHITE, M.F.A., *Part-time Instructor in English*
A.B., 1934 (North Carolina); M.F.A., 1939 (Yale).
- WILLIAM ALEXANDER WHITE, Ph.D., *Associate Professor of Geology*
A.B., 1930 (Duke); A.M., 1931 (North Carolina); M.S., 1934 (Montana School of Mines); Ph.D., 1938 (North Carolina).
- JOSEPH WILLARD WHITTED, A.M., *Instructor in Spanish*
B.S., 1933 (Davidson); A.M., 1941 (North Carolina).
- MAURICE WHITTINGHILL, Ph.D., *Associate Professor of Zoology*
A.B., 1931 (Dartmouth College); Ph.D., 1937 (Michigan).
- RICHARD HAVEN WILEY, Ph.D., *Associate Professor of Chemistry*
A.B., 1934, M.S., 1935 (Illinois); Ph.D., 1937 (Wisconsin); LL.B., 1942 (Temple University).
- WILLIAM LEON WILEY, Ph.D., *Professor of French*
A.B., 1921 (Chattanooga); A.M., 1925, Ph.D., 1930 (Harvard).
- FERD E. WILLIAMS, Ph.D., *Acting Assistant Professor of Chemistry*
B.S. in Chemistry, 1942 (Pittsburgh); M.A., 1945, Ph.D., 1946 (Princeton).
- RAY WYATT WILLIAMS, A.M., *Instructor in Social Science*
A.B., 1941 (North Carolina); A.M., 1946 (Emory).
- LOUIS ROUND WILSON, Ph.D., Litt.D., LL.D., *Professor of Library Science and Administration*
A.B., 1899, A.M., 1902, Ph.D., 1905 (North Carolina); Litt.D., (Univ. of Denver); LL.D., (Haverford, North Carolina).
- †THOMAS JAMES WILSON, JR., Ph.D., *Advisory Dean of Admissions, Secretary of the Faculty, and Archivist*
A.B., 1894, A.M., 1896, Ph.D., 1898 (North Carolina).
- THOMAS JAMES WILSON, Ph.D., *Director of the University of North Carolina Press*
A.B., 1921, A.M., 1924 (North Carolina); Ph.D., 1927 (Oxford).
- REX SHELTON WINSLOW, Ph.D., *Professor of Economics and Director, Bureau of Business Services and Research, School of Commerce*
A.B., 1923 (Simpson College); A.M., 1929 (Illinois); Ph.D., 1936 (North Carolina).

* Absent on leave, 1946-1947.

† Died October 25, 1945.

- ARTHUR SIMEON WINSOR, Ph.D., *Professor of Mathematics*
A.B., 1914, A.M., 1915 (Mount Allison College); Ph.D., 1927
(Johns Hopkins).
- HARRY DEMERLE WOLF, Ph.D., *Professor of Economics*
B.S., 1922 (Kansas State Teachers College); A.M., 1923, Ph.D.,
1926 (Chicago).
- YUE KEI WONG, Ph.D., *Associate Professor of Mathematics*
B.S., M.S., Ph.D., (Chicago).
- EDWARD JAMES WOODHOUSE, B.A., LL.B., *Professor of Political
Science*
B.A., 1903 (Randolph-Macon College); LL.B., 1907 (Virginia).
- WILLIAM SLEDGE WOODS, A.M., *Instructor in French*
A.B., 1931, A.M., 1932 (South Carolina).
- JOHN BROOKS WOOSLEY, Ph.D., *Professor of Economics*
A.B., 1912 (Guilford College); A.B., 1913, A.M., 1914 (Haver-
ford); Ph.D., 1931 (Chicago).
- FRED BOYER WRIGHT, JR., *Part-time Instructor in Mathematics*
- JOHN JOSEPH WRIGHT, A.B., M.D., M.P.H., *Research Professor of
Epidemiology in the School of Public Health*
A.B., 1931, M.D., 1935 (Vanderbilt); M.P.H., 1939 (Johns Hop-
kins).
- EARL WYNN, M.S., *Professor of Radio and Communication*
A.B., 1932 (Augustana College); M.S., 1934 (Northwestern).
- ANDREW HENRY YARROW, A.M., *Instructor in French*
A.B., 1938, A.M., 1939 (North Carolina).
- PAUL YOUNG, M.A., *Associate Professor of Music*
B.S., 1931 (Ohio); M.A., 1936 (Columbia).
- ARTHUR WILLIAM ZIEGLER, A.M., *Instructor in Botany*
A.B., 1939, A.M., 1941 (North Carolina).

GRADUATE APPOINTMENTS, 1946-1947

Teaching Fellows

JAMES RUSH BEELER, A.B.....	Romance Languages
LEONARD LEE BENNETT, S.M.....	Chemistry
FRANCIS WESLEY BONNER, A.M.....	English
GWENDOLYN FAUSTINA CALDWELL, A.B.....	Romance Languages
CHARLES MORGAN CLARKE, A.M.....	Education
EARL EDWARD DITMARS, S.M.....	Economics and Commerce
THOMAS PARRY FIELD, A.M.....	Geology and Geography
PORTER LEE FORTUNE, JR., A.M.....	History
ROBERT HUGH GAUGH, A.M.....	English
MARION AUSTIN GREENE, A.M.....	Romance Languages
MARY FRANCIS GYLES, A.M.....	History

CHARLES HENDERSON, A.B.....	Classics
CLARENCE HUGH HOLMAN, A.B.....	English
CHARLES SEBASTIAN JAMES, A.M.....	Political Science
FREDERICK BLOUNT JOYNER, S.B.....	Chemistry
ROBERTA LOVELACE, S.M.....	Zoology
NATHANIEL MACON, A.B.....	Mathematics
JACK LAVOY PARNELL, S.B.....	Physics
ELAINE PEARLSTINE, A.B.....	Economics and Commerce
PHILIP MORRISON RICE, A.B.....	History
PHYLLIS PRISCILLA ROSNER, A.B.....	Psychology
EDNEY WEBB STACY, A.B.....	Mathematics
WILLIS ANDERSON SUTTON, A.M.....	Sociology
HARRY TUCKER, JR., A.B.....	German
JEAN PAUL WILLIAMS, S.B.....	Chemistry
ARTHUR WILLIAM ZIEGLER, A.M.....	Botany

Graduate Assistants

GERTRUDE ADLER, S.B.....	Bacteriology
ANNA VIRGINIA AUSTIN, S.B.....	Economics and Commerce
WAYNE ENO BOWMAN, A.M.....	Dramatic Art
ALFRED CARTER BROAD, A.B.....	Zoology
WILLIAM WESLEY BURCHFIELD, M.S.....	Geology and Geography
KITTIE BEATY BURRUS, A.B.....	Sociology
WILLIAM W. COLLINS, B.S.M.....	Music
SAMUEL OWEN CORNWELL, S.B.....	Anatomy
MARGARET M. DARROUGH, A.B.....	Biological Chemistry
HAROLD F. ELKIN, A.B.....	Public Health
MARY LOUISE EMERY, B.M.....	Music
CAMPBELL COURTENAY FREEMAN, S.B.....	Zoology
EDGAR RAY GARRETT, S.B.....	Dramatic Art
WILLIS COWAN GATES, B.M.....	Music
HAZEL BEVILLE GILCHRIST, A.B.....	Public Health
MARGARET SPENCER GRAVATT, A.B.....	Public Health
IRA EURILIOUS GUNN, JR., A.B.....	Economics and Commerce
VIRGINIA ELIZABETH HARE, A.B.....	Music
SHIZUKO HAYASHI, A.B.....	Sociology
HUBERT P. HENDERSON, A.B.....	Music
MAEBURN BRUCE HUNEYCUTT, A.B.....	Botany
ALBERT W. JOWDY, S.B.....	Pharmacy
LYNN LEONARD, A.B.....	Dramatic Art
HERBERT STANTON LIVINGSTON, A.B.....	Music
PAULINE MOSER LONGEST, A.B.....	Botany
ELIZABETH FLORENCE McIVER, A.B.....	Dramatic Art
GWYNN S. McPEEK, M.Mus.....	Music
CHARLES LAWRENCE MARKS, A.B.....	Mathematics
WILTON MASON, A.B.....	Music

MARJORIE CAROL MEYERS, A.B.....	Psychology
JOSEPH CHARLES O'KELLEY, A.B.....	Botany
MARIE LOUISE PEACHEE, A.B.....	Psychology
MARY BROOKS POPKINS, A.B.....	Dramatic Art
EMILY GERALDINE PORTER, B.S.M.....	Music
LOUISE RANDALL RUSSELL, S.B.....	Geology and Geography
ALICE GARNETT RYLAND, A.B.....	Botany
EDNA PEARL SAFLEY, B.S.....	Political Science
FRANK WENDELL SAUNDERS, A.B.....	Mathematics
WILLIAM JOHNSON SHEFFIELD, S.B.....	Pharmacy
EUGENE STRYKER, B.M.....	Music
PAUL WILSON TITMAN, A.B.....	Botany
EDGAR VOM LEHN, A.B.....	Music
MARY JO WADE, S.B.....	Psychology
GLORIA CHAPMAN WILLIS, A.B.....	Political Science

SPECIAL GRADUATE APPOINTMENTS

Research Fellows

- CAROLYN ANDREWS DANIEL, A.B., General Education Board Fellow in History of Education
- ELLEN-FAIRBANKS DIGGS, A.B., General Education Board Fellow in History of Education
- ROBERT STANSBURY LAMBERT, A.B., General Education Board Fellow in History of Education
- MARGARET ROBERTA MACKENZIE, A.B., General Education Board Fellow in History of Education
- ROBERT WITHERSPOON MILLER, A.B., Merrell Fellow in Chemistry
- DANIEL O'HAVER PRICE, A.M., Postwar Fellow, Social Science Research Council
- WILLIAM THOMAS RAINEY, JR., S.B., DuPont Fellow in Chemistry

Research Assistants

- ROBERT CLETUS ANDERSON, S.B., Institute for Research in Social Science.
- *ELIZABETH BUTTERWORTH CURRY, A.B., Alamanca General Hospital Research Assistant in Biological Chemistry
- GEORGIA CUBBEDGE ETHRIDGE, A.B., Institute for Research in Social Science
- KIE KNEELAND FULLERTON, A.M., Institute for Research in Social Science
- WILSON PARKS MCKITTRICK, S.B., Fels Foundation Research Assistant in Biological Chemistry
- RALPH CLINTON PATRICK, JR., A.B., Institute for Research in Social Science

* Resigned January 3, 1947.

RICHARD MAURICE RESER, A.M., Institute for Research in Social Science

PRISCILLA ALDEN ROETZEL, A.B., Research Assistant in Spanish American Literature

Non-Service Fellows

HELEN DAVIE BEDON, A.B., Ledoux Fellow in Chemistry

EDNA CATHERINE COOPER, A.M., Rosenwald Fellow

VLADIMIR EUGENE HARTMAN, A.M., Rosenwald Fellow

ELEANOR LLOYD JENKINS, A.M., General Education Board Fellow in Mathematical Statistics

GEORGE EDWARD NICHOLSON, JR., A.M., General Education Board Fellow in Mathematical Statistics

ARTHUR DEWITT RIPLEY, A.B., Kenan Fellow in Philosophy

JEAN CATHERINE ROSS, A.B., Consolidated University Fellow

ELIZABETH HEAD VAUGHAN, A.M., Rosenwald Fellow

JUDSON CLEMENTS WARD, JR., A.M., Waddell Memorial Fellow in History

A. LEE WHEELER, A.M., Horace Williams Fellow in Philosophy

HILDA JANE ZIMMERMAN, A.M., Waddell Memorial Fellow in History

Scholars

LUCY COLE DURHAM, A.B., Service Scholar, Mathematical Statistics

MARY JEAN LEE, A.B., Service Scholar, French

BETTY ALICE LONG, A.B., Endowed Scholar, Sociology

VIRGINIA ELIZABETH MAYNARD, A.B., Service Scholar, Social Work

CAROLYN CUMMING MICHEL, A.B., Service Scholar, Spanish

BETTY ANN RAGLAND, A.B., Endowed Scholar, English

MADIE BELLE WARD, A.M., Endowed Scholar, Comparative Linguistics

BELLE ZABINS, A.B., Service Scholar, Social Work

STANDING COMMITTEES OF THE FACULTY

ADVISORY (*elected with terms expiring the year indicated*).

1947: Messrs. Baity, G. C. Taylor, Woosley; 1948: R. E. Coker, F. M. Green, Leavitt; 1949: R. J. M. Hobbs, Markham, Wettach.

ATHLETICS. Messrs. A. W. Hobbs, Chairman, Cornwell, Hedgpeth, H. D. Wolf.

CATALOGUE. Messrs. Armstrong, Chairman, King, Phillips, Plemmons, Spruill, Miss Foster.

COMMITTEES. Messrs. Howell, Chairman, Carroll, A. W. Hobbs, King, Spruill.

DEBATE COUNCIL. Messrs. Olsen, Chairman, Godfrey, Woodhouse, student members.

ELIGIBILITY FOR STUDENT ACTIVITIES. Messrs. Mackie, Chairman, Giduz, C. P. Russell, Sharpe, Dean Carmichael.

ENDOWED SCHOLARSHIPS, LOAN FUNDS, AND SELF-HELP WORK. Messrs. Carroll, Chairman, Armstrong, Bost, A. W. Hobbs, Cecil Johnson, Lanier, J. C. Lyons, Saunders, Spruill, J. A. Williams.

ENGLISH COMPOSITION. Messrs. Totten, Chairman, J. O. Bailey, Secretary, N. B. Adams, R. W. Adams, Bagby, S. A. Emery, Epps, Friederich, Hudson, Cecil Johnson, Jones, Mouzon, Newman, Robson, Roe, Sanders, Selden, Spearman, W. A. White.

EXAMINATIONS AND RECORDS. Messrs. Stoudemire, Chairman, Armstrong, Carroll, Evans, A. W. Hobbs, Hudson, Jacobs, Cecil Johnson, Jordan, Klaiss, Lanier, Lasley, Markham, Wherry.

EXECUTIVE (*elected with terms expiring the year indicated*). 1947: Messrs. S. T. Emory, Godfrey; 1948: Hudson, Cecil Johnson; 1949: E. A. Cameron, Markham.

FACULTY LIVING CONDITIONS. Messrs. Brandis, Chairman, J. C. Andrews, Bailey, Brooks, Browne, Burlage, Cowden, Crockford, W. G. Morgan, R. W. Morrison, Newcomer, Winslow, Miss Herring.

FRATERNITIES AND SORORITIES. Messrs. J. C. Lyons, Chairman, Carroll, Godfrey, Mackie, MacKinney, Peacock, Saunders, Stoudemire, Woodhouse, Y.W.C.A. Secretary, Miss Jocher, Dean Carmichael.

GENERAL COLLEGE INSTRUCTION. Messrs. Hudson, Chairman, Engstrom, M. A. Hill, S. B. Knight, Pegg.

GOVERNMENT. Messrs. Booker, Godfrey, King, Knight, Wettach, L. R. Wilson.

GROUNDS, BUILDINGS, FIELDS, FORESTS AND LAKE AREA. Messrs. R. J. M. Hobbs, Chairman, Baity, Booker, W. C. Coker, Cornwell, House, Lefler, MacNider, Teague, Wager, Wells, W. L. Wiley.

HONORARY DEGREES (*elected with terms expiring the year indicated*). 1947: Messrs. R. E. Coker, L. R. Wilson; 1948: Bullitt, Connor; 1949: Dey, Henderson.

INSTRUCTION AND REGULATIONS. Messrs. A. W. Hobbs, Chairman, Berryhill, Carroll, Jacobs, King, Lasley, Newsome, Pierson, Spruill, Ullman, Wettach, Miss Akers.

INTER-AMERICAN INSTITUTE. Messrs. Leavitt, Director, Carmichael, Carroll, Dey, Graham, Grumman, House, Pierson, Business Officer.

LECTURES AND CONVOCATIONS. Messrs. Robson, Chairman, S. T. Emory, Epps, George, Heath, Jente, Vance.

LIBRARY PLANNING. Messrs. Rush, Chairman, R. E. Coker, Wettach, L. R. Wilson, Woosley.

PUBLIC OCCASIONS. Messrs. Saunders, Chairman, Coates, Dey, Fetzer, Grumman, Madry, Phillips, Poteat, Teague, and others as needed.

REGISTRATION. Messrs. Lanier, Chairman, Raymond Adams, Engstrom, Hill, Lasley, Markham, Mullis, Pegg, Wells.

REGULATION OF STUDENT DANCES. Messrs. Mackie, Chairman, E. A. Cameron, Weaver, Dean Carmichael.

RETIREMENT. Messrs. Lear, Chairman, Green, Heer.

RETIREMENT ENDOWMENT. Messrs. L. R. Wilson, Chairman, Blackwell, Dashiell, Dey, Lear, C. P. Lyons, MacNider, Harry Russell, T. J. Wilson.

SESQUICENTENNIAL CELEBRATION. Messrs. L. R. Wilson, Chairman and Director, Berryhill, R. E. Coker, Connor, Dey, MacNider, Newsome, C. P. Russell.

STUDENT ENTERTAINMENT. Messrs. Harland, Chairman, Cotten, J. N. Couch, Haydon, Mouzon, Spearman.

SULLIVAN AWARD. Messrs. Mackie, Chairman, A. W. Hobbs, House.

PART TWO

GENERAL INFORMATION

THE UNIVERSITY

Historical Sketch of the University of North Carolina

The University of North Carolina, the first state university in the United States to open its doors to students, celebrated during the biennium 1943-1945 its Sesquicentennial Anniversary.

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 (afterwards 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, made it the beneficiary of escheats and arrearages due the State, and in 1867, it appropriated \$7,000 to pay indebtedness to officers incurred during and immediately after the Civil War.

Prior to 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-four 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."

From its reopening to 1947, the University has 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 1875, 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-) the University has 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.

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.

Following the outbreak of World War II, the Navy selected Chapel Hill as the site for one of four Pre-Flight Schools for the physical conditioning and academic training of aviation cadets. Some 20,000 officers and cadets of the Navy's air service were trained at the Chapel Hill Pre-Flight School. A Naval ROTC unit, established in 1940, became the nucleus of a V-12 Navy program, inaugurated in July, 1943, that enrolled trainees in the Navy, Marine Corps, and Coast Guard. The Army likewise utilized the University's facilities for A.S.T.P. courses in language and area studies and in medicine. The Army Air Corps conducted a Pre-Meteorological program in cooperation with the University. University scientific departments conducted research projects for various wartime purposes. More than 10,000 students and alumni of the University, without counting trainees sent to Chapel Hill, entered the armed forces. More than 300 lost their lives in service.

Growth of the University at Chapel Hill is depicted in enrollment figures. In the fall of 1920 students in residence numbered some 1300; in 1930, 2700; and in the fall of 1941 enrollment reached 4108—up to then an all-time high. Because of the G. I. Bill and the general pressure for university education since the conclusion of the war, enrollment at Chapel Hill has, in 1946-1947, reached the figure of 6893 and is steadily mounting.

The physical plant of the University is valued at approximately \$20,000,000. It has had three notable periods of expansion. The first occurred in the 1920's and the second in the late 1930's and early 1940's. During World War II a third construction program was undertaken as the University built facilities to accommodate the Navy and Army training programs on the campus. The 1947 legislature projected a fourth period of building activity when it made appropriations of \$7,844,800 for permanent improvements with which to expand the two-year

Medical School to a four-year school with teaching hospital, build three new dormitories, greatly increase the capacity of the library, and expand the University's utilities and service plants.*

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 six schools which have jurisdiction over degrees as shown below:

THE COLLEGE OF ARTS AND SCIENCES

- Bachelor of Arts
- Bachelor of Arts in Journalism
- 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
- Bachelor of Science in Science Teaching
- 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 COMMERCE

- Bachelor of Science in Commerce
- Bachelor of Science in Commerce and Laws (with the School of Law)

THE GRADUATE SCHOOL

- Master of Arts
- Master of Arts in Education
- Master of Science
- Master of Science in Sanitary Engineering
- Master of Science in Social Work
- Master of Public Health
- Master of Regional Planning
- Doctor of Public Health
- Doctor of Philosophy

THE SCHOOL OF LAW

- Bachelor of Laws
- Doctor of Law
- Bachelor of Arts and Laws (see above)
- Bachelor of Science in Commerce and Laws (see above)

* For more detailed information concerning the University, see Kemp Plummer Battle's two-volume *History of the University of North Carolina*, published 1907-12.

THE SCHOOL OF MEDICINE

Bachelor of Science in Medicine (see above)

THE SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

THE SCHOOL OF LIBRARY SCIENCE

Bachelor of Science in Library Science

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 towards some degree from the University.

Department of Naval Science and Tactics

For information with respect to the Department of Naval Science and Tactics the reader is referred to Part IV of this catalogue.

The University Extension Division

There is also an Extension Division through which the services of the University Faculty and certain facilities of the University are made available to the people of the State generally.

The General Faculty of the University

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.

Scholarships and Other Financial Assistance

The income from a number of endowed scholarships is available for students who can show good 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 a limited number of positions 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 Mr. Edwin S. Lanier, Director of Student Aid Office.

Students should not come to the University unless they are able to pay their bills immediately upon registration. All arrangements about payment of bills must be made in advance of registration, whether by way of loans, scholarships, acceptance of notes, or in any other manner.

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

Religion is an important factor in student life, centered officially in the Y. M. C. A., the Y. W. C. A., and the Council for Religion in Life, to which the University makes annual contributions. In addition, the churches of Chapel Hill, embracing a number of denominations, actively support work among students. Several are housed in modern church plants located in close proximity to the campus; others maintain rooms and temporary structures for services. They are manned by an effective and cooperative group of pastors and student pastors, who work closely with University religious organizations. A Council on Religious Life headed by the Chancellor and embracing in its membership officials and representatives of all religious organizations constantly studies the spiritual needs of students and serves as a clearing house for matters concerning the religious life of the University.

Physical Education

Hearty encouragement is given to athletic sports and to all kinds of physical activity. 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 sports, involving over half the undergraduates. Complete schedules are played in individual and team activities, including both major and minor sports. These intramural teams offer every interested student opportunity to participate in a healthful form of competition with his fellows and to learn teamwork and good sportsmanship.

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. More advanced courses in physical education are offered to upperclassmen who plan to become athletic directors or coaches.

A thorough physical examination is given to students at the time of entrance. All students are classified on the basis of the examination, and effort is made to adapt the program to the individual's particular needs. Particular attention is given to various remediable defects, and individual programs are built with the idea of improving or correcting the existing conditions.

Medical Attention

In order to provide proper attention for the student during sickness the University employs five full-time physicians and maintains a well-appointed infirmary, equipped with all necessary conveniences and comforts, and with a modern X-ray unit and laboratory for diagnostic purposes under the direction of a full-time technician. It is under the immediate supervision of the University Physician, and is provided with four experienced nurses. At the discretion of the University 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 should any additional service (consultation, special nurses, operations requiring the attendance of a trained surgeon), recommended by the attending physician and approved by the parent or guardian, be necessary, the student will be required to pay for such service.

THE DIVISION OF MEDICAL SCIENCES

In order to coordinate more closely the medical activities and interests of the University with particular reference to teaching and research, a Division of Medical Sciences has been set up. This Division includes the School of Medicine, the School of Public Health, the Tri-County Health Unit (a teaching agency for the School of Public Health and the Medical School) and the University Health Service. The schools and departments in the Division have representation on the Divisional Board which serves in an advisory capacity to the University Administration on all medical matters, and also in an advisory capacity to the two schools and two departments making up the Division.

The following members of the faculty comprise the Advisory Board:

WALTER REECE BERRYHILL, *Dean of the School of Medicine,*
Chairman.

JAMES CLARENCE ANDREWS

O. DAVID GARVIN

HERMAN GLENN BAITY

WESLEY CRITZ GEORGE

RALPH WALTON BOST

EDWARD MCGOWAN HEDGPETH

JOHN NATHANIEL COUCH

JOHN EDGAR LARSH

JOHN JOSEPH WRIGHT

THE DIVISION OF STUDENT WELFARE

General Statement

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. These relationships all have educational significance and are recognized as an integral part of the educational program of the University.

In recent years of University growth many agencies have come into existence to promote in various ways the wholesome growth of students and student life. To relate most effectively the respective functions of such agencies and to focus the entire guidance resources of the institution on the particular needs of students both as individuals and as groups is the responsibility of this Division through its Administrative Board.

*The Administrative Board

LEE ROY WELLS ARMSTRONG	EDWIN SIDNEY LANIER
JOHN SAMUEL BENNETT	HAROLD DIEDRICH MEYER
WALTER REECE BERRYHILL	WILLIAM DECATUR PERRY
MISS KATHERINE KENNEDY	GUY BERRYMAN PHILLIPS
CARMICHAEL	WILLIAM HARDMAN POTEAT
WILLIAM DONALD CARMICHAEL, JR.	MISS MARTHA RICE
DUDLEY DEWITT CARROLL	J. MARYON SAUNDERS
MISS KATHRYN G. COOK	FREDERICK CARLYLE SHEPARD
OLIVER KELLY CORNWELL	CORYDON PERRY SPRUILL, JR.
HARRY WOLVEN CRANE	CLAUDE EDWARD TEAGUE
MRS. BETTY ROSE DOWDEN	FREDERICK H. WEAVER
ROBERT ALLISON FETZER	WILLIAM SMITH WELLS
EDWARD MCGOWAN HEDGPETH	ERNEST LLOYD MACKIE,
ROBERT BURTON HOUSE	<i>Chairman</i>

Because of the intimate relationship of this division to student life, there is an Advisory Board composed of students appointed annually by the President 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 1946-1947:

JOHN DEWEY DORSETT, JR.	WHIT OSGOOD
SIBYL GOERCH	MORRIS WILEY PULLY
FRANCES JAYNE GOLDEN	SALLIE BAKER ROBERTSON
RAYMOND LEWIS JEFFERIES, JR.	CHARLES FREDERIC WARREN
CONSTANCE BOYD MORRIS	WILLIAM JOHN WOESTENDIEK
WILLIAM EDWARD YORK	

* The President is *ex officio* a member of this Administrative Board.

The Executive Committee for the year, as appointed by the Chairman, is as follows:

JOHN SAMUEL BENNETT	CORYDON PERRY SPRULL, JR.
JOHN DEWEY DORSETT, JR.	CHARLES FREDERIC WARREN
FRANCES JAYNE GOLDEN	ERNEST LLOYD MACKIE, <i>Chairman</i>

STUDENT GOVERNMENT

The student body of the University is self-governing. The functions of this government are 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 a Student Legislature comprised of fifty members elected annually.

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

Officers of Student Government

President of the Student Body.....	JOHN DEWEY DORSETT, JR.
Vice-President of the Student Body	LINDSAY CHARLES WARREN, JR.
Secretary-Treasurer of the Student Body	JOHN F. JONES

Student Council Members, 1946-1947

RAYMOND LEWIS JEFFERIES, *Chairman*

NANCY CRAWFORD LAIRD	BARBARA FULLWOOD CASHION
BLANCHE BARBARA JACOBI	EDWARD ANTHONY BLACK
CONSTANCE BOYD MORRIS	LAWRENCE LEWIS HOOPER
WHITMAN OSGOOD	

Men's Council Members, 1946-1947

MORRIS WILEY PULLY, *Chairman*

FRANK CAMP WILLIAMS, JR.	EDWIN KELLY WALKER
FRANK POLLARD HILL	REEVES HAWKINS
JOSEPH M. JOHNSON	DONALD WHITFIELD MCCOY
WILLIAM KNOX TATE	MEREDITH SHOWERS BUEL

Women's Council Members, 1946-1947FRANCES JAYNE GOLDEN, *Chairman*

WILLIAM GRAHAM QUAKENBUSH	JANE D. BENTLEY
LLOYD	ANN ELIZABETH ROBINSON
MARSHALL ANN SPEARS	CATHERINE COX CARLEN
SARA DABNEY LITTLE	DONLEEN MACDONALD
ELIZABETH ANNE BARNES	

Historically, student government at the University has rested upon two central ideas, the Honor System, and the Campus Code. 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. When a student is charged with violation of the Honor System or the Campus Code the matter is examined by the appropriate student council, and if found guilty the offender 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.

THE UNIVERSITY LIBRARYCHARLES EVERETT RUSH, *Director***The Administrative Board**

SUSAN GREY AKERS	ALBERT RAY NEWSOME
GEORGE RALEIGH COFFMAN	WILLIAM WHATLEY PIERSON
JOHN NATHANIEL COUCH	CHARLES E. RUSH, <i>Chairman</i>
STURGIS ELLENO LEAVITT	BERTHOLD LOUIS ULLMAN
WILLIAM DEBERNIERE	ROBERT HASLEY WETTACH
MACNIDER	JOHN BROOKS WOOSLEY

Staff Heads of Departments

- GEORGE F. BENTLEY, *Circulation and Reserve Departments*
 OLAN VICTOR COOK, *Assistant Librarian*
 MILDRED WINSOR DAVIS, *Periodicals Department*
 GEORGIA HICKS FAISON, *Reference Department*
 J. G. DEROUHAC HAMILTON, *Director, Southern Historical Collection*
 WILLIAM P. KELLAM, *Assistant Librarian*
 CORNELIA SPENCER LOVE, *Order Department*
 NELLIE ROBERSON, *Library Extension Department*
 MARY LINDSAY THORNTON, *North Carolina Collection*
 FRANCES LYDIA YOCOM, *Catalogue Department*

The University Library contains more than 475,000 volumes. Its main collections are housed in a building erected in 1929 which seats 1,000 readers. Approximately 20,000 titles are added annually by purchase, gift, and exchange. General reference resources are strengthened by 90,000 bound periodicals, 3,100 current serials, and exceptional sets 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 2,000,000 manuscripts; the North Carolina Collection of 100,000 items relating to the State; together with unusual collections of American drama, Spanish drama, folklore, Latin-American studies, and 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 those great collections exceptionally available, and active microfilm service miraculously brings all other libraries near at hand.

Other facilities for graduate study and research include seminar rooms and 162 individual carrells located in the bookstack, as well as the special collections serviced in the 14 departmental libraries assigned to art, botany, chemistry, commerce, geology, law, library science, mathematics and physics, medicine and public health, music, pharmacy, psychology, rural sociology, and zoology.

THE UNIVERSITY OF NORTH CAROLINA PRESS

THOMAS JAMES WILSON, *Director*

Board of Governors

ROBERT HASLEY WETTACH, *Chairman*

ROBERT BURTON HOUSE	WILLIAM CHAMBERS COKER
HOWARD WASHINGTON ODUM	RUPERT BAYLESS VANCE
GEORGE COFFIN TAYLOR	CHARLES BASKERVILL ROBSON
FRANK PORTER GRAHAM	CORYDON PERRY SPRUILL, JR.
RUSSELL MARVIN GRUMMAN	RALPH WALTON BOST
STURGIS ELLENO LEAVITT	GORDON WILLIAMS BLACKWELL
LOUIS ROUND WILSON	JOHN NATHANIEL COUCH
ROBERT DIGGES WIMBERLY	MILTON SIDNEY HEATH
CONNOR	HUGH TALMAGE LEFLER

HARRIS KITSUN RUSSELL

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, financed in part by the University, and its policies are determined by a Board of Governors.

The Press has published twenty-five 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 Historical Studies*; *The High School Journal*; *Social Forces*; *The North Carolina Law Review*; *The University of North Carolina Extension Bulletin*; *The Library Extension Publications*; *The University News Letter*; *The University of North Carolina Record*

The Press offices are located in Bynum Hall. The agents of the Press for Great Britain and the British Dominions are respectively *The Oxford University Press*, London, for books; *The Cambridge University Press*, London, for periodicals. Foreign shipments, interrupted by the war, began again on a small scale in 1945-1946 and are steadily increasing through the efforts of the management to extend the foreign markets of the Press.

A complete list of publications issued by the Press will be supplied without charge to any address on request. A newly-published descriptive catalogue is also now available for sale in paper and cloth-bound editions.

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 News Bureau was established with a full-time director in the fall of 1918, 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 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 any news distributed by the News Bureau.

THE INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
 ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
 GORDON WILLIAMS BLACKWELL, Ph.D., *Director*
 KATHARINE JOCHER, Ph.D., *Assistant Director*
 JOHN ELI IVEY, JR., Ph.D., *Chief, Division of Research Interpretation*
 JOHN ALBERT PARKER, M.C.P., *Chief, Division of Regional Planning*

Board of Governors

FRANK PORTER GRAHAM	ARTHUR MELVILLE JORDAN
ROBERT BURTON HOUSE	ALBERT RAY NEWSOME
LEONARD DAVID BAVER	HOWARD WASHINGTON ODUM
GORDON WILLIAMS BLACKWELL	WILLIAM WHATLEY PIERSON
DUDLEY DEWITT CARROLL	CHARLES BASKERVILL ROBSON
MARGARET MESSENGER EDWARDS	WILL CARSON RYAN, JR.
JOSEPH GREGOIRE DEROULHAC	ROBERT HASLEY WETTACH
HAMILTON	LOUIS ROUND WILSON

Research Staff

GORDON WILLIAMS BLACKWELL, Ph.D., *Research Professor*
 JOHN PHILIP GILLIN, Ph.D., *Research Professor*
 JAMES WILLIAM FESLER, Ph.D., *Research Professor*
 SAMUEL HUNTINGTON HOBBS, JR., Ph.D., *Research Professor*
 KATHARINE JOCHER, Ph.D., *Research Professor*
 *GUY BENTON JOHNSON, Ph.D., *Research Professor*
 RICHARD SHERMAN LYMAN, M.D., *Consulting Research Professor of Psychiatry*
 †HOWARD WASHINGTON ODUM, Ph.D., LL.D., Litt.D., L.H.D., *Kenan Research Professor*
 JOHN ALBERT PARKER, M.C.P., *Research Professor*
 RUPERT BAYLESS VANCE, Ph.D., LL.D., *Kenan Research Professor*
 PAUL WOODFORD WAGER, Ph.D., *Research Professor*
 NICHOLAS JAY DEMERATH, Ph.D., *Research Associate*
 HARRIET LAURA HERRING, A.M., *Research Associate*
 JOHN ELI IVEY, JR., Ph.D., *Research Associate*
 JAMES MURRAY WEBB, M.C.P., *Research Associate*
 MARJORIE NIX BOND, A.M., *Editorial Associate*
 ROBERT C. ANDERSON, B.S., *Research Assistant*

* On leave as Executive Director of the Southern Regional Council, Atlanta, Georgia.

† On leave as Visiting Professor and Silliman Fellow at Yale University.

GEORGIA CUBBEDGE ETHRIDGE, A.B., *Research Assistant*
KIE SEBASTIAN FULLERTON, M.A., *Research Assistant*
NATHALIE GEORGIA, M.A., *Research Assistant*
MARGARET CALDWELL JAMES, A.B., *Research Assistant*
BETTY ALICE LONG, A.B., *Research Assistant*
RALPH CLINTON PATRICK, JR., A.B., *Research Assistant*
RICHARD M. RESER, A.M., *Research Assistant*
SOLOMON SUTKER, A.B., *Research Assistant*
HARRY BIXLER WILLIAMS, B.S., *Research Assistant*
WOODROW BRELAND, A.M., *Editorial Assistant*
OZELLO DEES, A.B., *Assistant in Graphic Arts*

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. Two-thirds of their time is allocated to research with one-third devoted to teaching in one of the social science departments. A Board of Governors is composed of representatives from the University administration, the several social science departments, the library, the Agricultural Experiment Station at Raleigh, and the Department of Home Economics at the Woman's College in Greensboro. This body determines basic policies, with details of administration delegated to the Director and staff.

With the first financial grant from the Laura Spelman Rockefeller Memorial in 1924, a basic policy problem was faced. This was whether funds should be distributed widely to faculty members engaged in social science research of many types, or whether an integral Institute staff should be developed with a selected, unifying research focus. The latter alternative was chosen. Regionalism and the achieving of an understanding of the State and the South became the dominant theme in the research which followed.

Major functions of the Institute are: (1) to encourage and stimulate research in the social sciences at The University of North Carolina, to map out and plan for a research program through which facilities may be more abundant and coordination and integration more articulate, and to discover and develop research personnel; (2) 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 con-

text; (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. In addition to focusing upon North Carolina and the South, special attention has been given to a subregion composed of 13 counties around Chapel Hill, which serves as a living laboratory for social research and planning.

The organizational structure of the Institute has, from the beginning, provided for a Director, an Assistant Director, a Central Office, and research professors and research associates, each in charge of a particular field of research in which he is a specialist. To complement this regular research program, a Division of Regional Planning and a Division of Research Interpretation have been added.

The Central Office, in 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 research staff of the Institute is composed of research professors, research associates, and research assistants in anthropology, economics, political science, public administration, regional planning, sociology, and statistics. From time to time research is undertaken also in the fields of education, geography, history, and social psychology. 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.

The primary focus of the Institute, therefore, is upon empirical research within a theoretical framework. However, in order better to further its objectives, the two divisions, already mentioned, were established in the Institute in 1946. The Division of Regional Planning develops research by staff members and graduate students in the planning field. This Division cooperates with the Graduate School in a curriculum leading to the degree of Master of Regional Planning. Its Chief has training and experience in design and in city and regional planning.

The Division of Research Interpretation develops research and demonstration projects by staff members and graduate students in methods and media for making research more functional in resource development within community, state, and regional areas. In this connection, the Division cooperates

closely with the University Communication Center. The Division staff provides the secretariat for the Committee on Southern Regional Studies and Education of the American Council on Education. Cooperation is also afforded to the several social science departments in the Graduate School in connection with graduate training in this field. Its Chief has broad training in the social sciences, with extensive experience and contacts in professional education.

The studies and materials of the Institute may be grouped under the general categories of southern regional research 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 chronologically arranged lists of publications and studies presented in the special issue of *Social Forces* commemorating the Sesquicentennial of the University (March 1945, pp. 309-28), shows a total of 87 books and monographs, 323 articles, chapters in symposia, proceedings, etc., 208 manuscripts, by a total of 239 authors. These authors include not only the regular Institute staff and assistants over the twenty-year period, 1924-1944, but also those authors with whom the Institute has undertaken cooperative research.

The Institute is housed in 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 periodical reading room containing files of many of the leading social science journals, a statistical laboratory, a drafting room, and the large Laboratory-Workshop. Under the direction of the Division of Research Interpretation, this Laboratory-Workshop serves students and others as an exhibit hall, reference room, 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.

INSTITUTE OF GOVERNMENT

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
 ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
 ALBERT COATES, A.B., LL.B., *Director*
 PEYTON BRYANT ABBOTT, A.B., LL.B., *Assistant Director*
 LOUIS A. CHERRY, A.B., B.S., *Librarian and Assistant Director*
 WILLIAM M. COCHRANE, A.B., LL.B., *Assistant Director*
 SAMUEL R. LEAGER, B.S., LL.B., *Assistant Director*
 HENRY W. LEWIS, A.B., LL.B., *Assistant Director*
 CLIFFORD PACE, A.B., LL.B., *Assistant Director*
 TERRY SANFORD, A.B., LL.B., *Assistant Director*
 DAVID H. SCOTT, A.B., M.B.A., LL.B., *Assistant Director*
 LLOYD WILLIAM ALLEN, C.B. Comm., *Assistant Director*

Board of Governors

Chairman, WILLIAM AUGUSTUS DEVIN, *Associate Justice, Supreme Court of North Carolina*

Representing the State Government:

ROBERT GREGG CHERRY, *Governor*
 LYNTON YATES BALLENTINE, *Lieutenant Governor*
 THOMAS JENKINS PEARSALL, *Speaker of the House of Representatives*

Representing the Counties:

JOHN P. SWAIN, *Chairman, Wake County Commissioners*
 S. MAX WASHBURN, *Cleveland County Commissioner*
 J. CALDWELL McDONALD, *Mecklenburg County Commissioner*

Representing Cities and Towns:

HENRY T. POWELL, *Mayor of Henderson*
 WALKER LYERLY, *Mayor of Hickory*
 EARL H. TATE, *Mayor of Lenoir*

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 governing board consists of three mayors representing the cities and towns, three county commissioners representing the counties, and three state officials representing the State. This governing board functions under the chairmanship of 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: (1) public officials, (2) private citizens, (3) 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 have 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 guide-books, 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 INSTITUTE OF STATISTICS

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President of the University of North Carolina*

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

JOHN WILLIAM HARRELSON, M.E., LL.D., *Chancellor of the North Carolina State College of Agriculture and Engineering and Vice-President of the University of North Carolina*

GERTRUDE MARY COX, M.S., *Director*

WILLIAM GEMMEL COCHRAN, M.A., *Associate Director*

HAROLD HOTELLING, Ph.D., *Associate Director*

Department of Mathematical Statistics

Chapel Hill

HAROLD HOTELLING, Ph.D. (Princeton), *Professor and Head of Department*

MAURICE STEVENSON BARTLETT, D.Sc. (London), *Visiting Professor*

RAJ CHANDRA BOSE, Ph.D. (Calcutta), *Visiting Associate Professor*

PAO LU HSU, Ph.D., D.Sc. (London), *Associate Professor*

WILLIAM GREGORY MADOW, Ph.D. (Columbia), *Associate Professor*

HERBERT ELLIS ROBBINS, Ph.D. (Harvard), *Associate Professor*

EDWARD PAULSON, M.A. (Columbia), *Instructor*

Department of Experimental Statistics

Raleigh

GERTRUDE MARY COX, M.S. (Iowa State College), *Professor and Head of the Department*

WILLIAM GEMMELL COCHRAN, M.A. (Cambridge), *Professor and Director of Research*

JACKSON ASHCRAFT RIGNEY, M.S. (Iowa State College), *Professor*

RICHARD LOREE ANDERSON, Ph.D. (Iowa State College), *Associate Professor*

JOHN MONTGOMERY CLARKSON, Ph.D. (Cornell), *Associate Professor*

HENRY LAWRENCE LUCAS, Ph.D. (Cornell), *Associate Professor*
PAUL PEACH, *Research Associate Professor*

H. F. ROBINSON, M.S. (N. C. State College), *Assistant Professor*

MARGARET FLEMING, B.S. (N. C. State College), *Instructor*

R. J. MONROE, B.S. (Iowa State College), *Instructor*

SARAH PORTER, A.B., (Meredith), *Instructor*

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 was occupied with research at least as much as with teaching. It 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 information needed for proper government administration more quickly and cheaply than by a complete enumeration. 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 as an all-University organization, and is also a department of the University offering instruction primarily to graduate students. It aims to prepare students for professorial posts in statistics, and as 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 the leading concern of this department.

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 planned. A series of such lectures was delivered by Professor Harald Cramér of Stockholm in Chapel Hill in December, 1946. Summer sessions were held in 1941 and 1946 with prominent leaders of statistics in the temporary faculties. Informal conferences, collaboration, and discussion on statistical problems are encouraged by definite measures. A joint colloquium meets sometimes at Raleigh and sometimes at Chapel Hill. A conference at Lake Junaluska, held at the close of the 1946 summer session, and organized by the Institute of Statistics, was attended by many illustrious statisticians. Members of the Institute of Statistics faculty have participated 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.

COMMUNICATION CENTER

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President of the University of North Carolina*

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

EARL WYNN, M.S., *Director*

CHARLES FREEMONT MILNER, A.M. in Education, *Associate Director, Head of Distribution and Utilization*

ELIZABETH JANE GRILLS, M.A., *Radio Production Director*

RHODA HUNTER, B.S., *Executive Secretary*

LOUISE PENDERGRAFT, *Secretary, Bureau of Visual Education and Film Librarian*

ROBERT FREDERIC SCHENKKAN, M.A., *Radio Writer*

ROSS SCROGGS, B.S., *Director, Still Photographic Laboratory*

ORISON WHIPPLE HUNGERFORD, *Technical Director*

Advisory Board

FRANK PORTER GRAHAM, *ex officio*

WILLIAM DONALD CARMICHAEL, JR., *ex officio*

JOHN WILLIAM HARRELSON, *ex officio*

ROBERT BURTON HOUSE, *ex officio*

WALTER CLINTON JACKSON, *ex officio*

RUSSELL MARVIN GRUMMAN
Chairman

JOHN HAROLD LAMPE

CHARLES FREEMONT MILNER

CHARLES W. PHILLIPS

BESS N. ROSA

EDWARD W. RUGGLES

I. O. SCHAUB

EARL WYNN

The Communication Center grew out of the accelerated training program of World War II. Radio, motion pictures, graphic presentation, still pictures, models, film strips, recordings, illustrated publications, television—these are the tools of communication. For war they were used to train millions of men and women. For peace they must prove no less effective. Wider educational opportunity for more people: This is the real challenge.

The Communication Center was approved by the Board of Trustees of the Consolidated University of North Carolina in September, 1945. In January, 1946, Swain Hall became its base of operation. In October, 1946, remodeling of the interior of Swain Hall for purposes of communication was begun. Between March and June, 1947, radio studios, a motion picture studio and projection room, and a new film library will be completed and ready for use.

University Extension

The Communication Center is an extension of the University to the people of North Carolina. As such, even though it has been set up as an independent organization, it will continue to work closely with the Extension Divisions of the Consolidated University.

Visual Education and Film Library

Under the leadership of Charles Milner, the Bureau of Visual Education of the University Extension Division has grown since 1938 to an organization which today services the audio-visual needs of the whole State of North Carolina. As an adopted member of the Communication Center, this department will distribute throughout the State, not only the educational motion pictures, slides, film strips, and recordings produced by commercial studios, but also those written and produced in the studios of the Communication Center. Only through careful and complete distribution of its materials can the Communication Center become an important and active educational service to the colleges, universities, schools, and people of North Carolina.

Radio

Radio broadcasting has been a part of the University of North Carolina's program since 1939. Since then, a training program has evolved (See Department of Radio), and a well-coordinated broadcast program has been developed. When the new radio studios in Swain Hall are completed, broadcasting of this program will begin through the facilities of the radio stations of North Carolina. This program will consist of (a) series of original plays written by students and faculty; (b) music programs; (c) roundtable discussions of current events; (d) literary roundtable discussions; (e) children's programs; (f) teaching programs in languages; (g) programs in law and citizenship; (h) religious programs; (i) North Carolina history; (j) science series; (k) news; and (l) other educational programs not yet fully planned.

It is hoped that the Communication Center will be able to enter the FM broadcasting field as a member of a State FM educational system within the next two years.

Recording

When the radio studios are completed, professional disc recording equipment will be available as a service to the departments of the University and to all educational institutions and organizations of the State.

All radio programs will be recorded and made available for distribution and use throughout the State.

Other uses to which the recording equipment will be put are these: (a) recording of music programs for classroom use or for permanent record; (b) recordings for training purposes in language, English, and speech classes; (c) recordings for film strips; (d) recordings of programs written by the Department of Radio for special purposes or special events, such as the March of Dimes drive, Public Health, the *Lost Colony*, and the like; (e) recordings of programs written for State educational purposes.

Still Photography

The Still Photographic Laboratory of the Communication Center is now in operation and provides these services: (a) the photographing and processing of all types of educational still photographic work; (b) the photographing and processing of film strips; (c) the photographing and processing of slides.

Series of slides and film strips which are produced in the laboratory for University departments will be duplicated and made available to other schools, colleges, universities, and organizations of the State and of the nation.

Motion Pictures

A motion picture studio, a motion picture projection room, and a motion picture animation room are scheduled for completion between March and June of 1947. The Motion Picture Division of the Communication Center will provide these services; (a) the planning and writing of educational motion pictures for University departments and for other colleges, universities, schools, and organizations of the State; (b) the complete sound production of these films; (c) the duplication and distribution of these films to other educational agencies.

Future plans call for complete motion picture laboratory facilities in color film as well as in black and white.

Future Services

Graphics: The Division of Graphic Arts, which includes the production of illustrated publications, posters, cartoons, diagrams, maps, models, schematics, film strips, and the like, for visual teaching, will be launched, it is hoped, within two years.

Television: Since it combines both the audio and the visual, television may become the most valuable of all media in the communication of knowledge from one mind to another. Within

the next few years, it is hoped, television can be put to work on an experimental basis, at least, for education.

Experimentation and Research: One of the important functions of the Communication Center is to discover the most effective use in teaching of each tool of communication. Great strides were made in this field during the war by the Armed Services Training Divisions. But much work remains to be done. The problems of transmitting spoken words and moving pictures from one place to another are solved. But the problems of communication from one mind to another are not solved. The penetration of the mind, rather than of space, is the big problem today. This is the job of our schools and the business of our universities.

Research in this field will be conducted by the Division of Research of the Communication Center.

*PERSON HALL ART GALLERY

JOHN VOLNEY ALLCOTT, *Director*

LYNETTE WARREN, *Curator*

Open free daily with a program of exhibitions and gallery talks. Exhibitions, September 1945–September 1946 were: Prints by Louis Shanker, Will Barnet, Morris Blackburn; Rental Collection of Facsimile Reproductions; A New American Architecture; North Carolina Postwar Plans; Ninth Annual North Carolina Artists Exhibition; Five Centuries of Drawings, facsimile reproductions owned by the Gallery; Cuban Painting Today; Ten Young American Artists; American Painting from XVIIIth Century to Today; Tenth Annual U. N. C. Art Students Exhibition; Ancient Peruvian Textiles; From Fouquet to Cezanne; French Masters of the XXth Century; War Damage in German Art; Photographic Science; Photographs of Mobile.

Person Hall Art Gallery houses the Person Hall Art Library of books and other reference material on current art courses and exhibitions. The Library also contains 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 1946-1947 are:

MRS. TAUL WHITE, *Chairman*
MRS. H. M. BURLAGE,
Secretary

MRS. PRESTON C. FARRAR,
Vice-Chairman
MRS. GEORGE LANE, *Treasurer*

Executive Board

MRS. K. P. ARRINGTON,
Honorary Life Member

MR. GEORGE LURCY,
Honorary Life Member

MR. JOHN ALLCOTT, *ex officio*

MRS. W. D. CARMICHAEL, JR.

MRS. FLOYD EDMISTER

DR. G. H. CUTTEN

MRS. B. F. SWALIN

MRS. ALBERT COATES

MRS. RICHARD JENTE

* 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.

THE FOLKLORE COUNCIL

RUSSELL MARVIN GRUMMAN, *Chairman*

RALPH STEELE BOGGS, *Archivist*

ROBERT WHITE LINKER, *Secretary-Treasurer*

*Executive Committee

GLEN HAYDON

ROBERT BURTON HOUSE

ARTHUR PALMER HUDSON

JOHN V. ALLCOTT

†Advisory Board

GORDON W. BLACKWELL

GERTRUDE CARRAWAY

JOHN D. CLARK

NORMAN E. ELIASON

JOHN GILLIN

FRANK PORTER GRAHAM

PAUL GREEN

JOHN HARDEN

RICHARD JENTE

PHILLIPS RUSSELL

SAMUEL SELDEN

WILLIAM SHARPE

JAMES STREET

NEWMAN I. WHITE

GEORGE WILSON

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 the variety of interests in folklore represented in the membership of the former Institute of Folk Music. There is at present one Division of the Council, namely: The Institute of Folk Music.

* The three general officers named above are members of the Executive Committee.

† All members of the full Executive Committee are members of the Advisory Board.

The Institute of Folk Music

GLEN HAYDON, *Director*

JAN PHILIP SCHINHAN, *Associate Director*

Advisory Board

RICHARD CHASE

FLETCHER COLLINS

PAUL GREEN

GEORGE HERZOG

GEORGE PULLEN JACKSON

JOHN POWELL

HELEN ROBERTS

CHARLES SEEGER

LAMAR STRINGFIELD

CHARLES G. VARDELL

FUNCTIONS OF THE INSTITUTE

As defined by the Council, folklore embraces all cultural aspects of folk life. In all lands the latter is closely allied to, and interwoven with, music in its various manifestations: as song, dance, or religious worship.

The Institute of Folk Music has varied, though related, aims:

1. The collection and preservation of indigenous material, as found in the various regions of the State.

2. The perpetuation of traditional songs, dances, and hymns through teaching traditional music in the schools and communities, as well as organizing county folk festivals and "old-time-music" conventions.

3. The scientific study, analysis, and interpretations 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.

PUBLIC LECTURES

CHARLES BASKERVILL ROBSON, *Chairman*

The John Calvin McNair Lectures

This lectureship was founded through a bequest, made by the Rev. 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 in 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 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 ex-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, N. C.

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 may be secured from the Dean of Men and the officers of the organizations.

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

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 has international circulation.

The Philological Club, meeting monthly during the academic year, is constituted in the same way for presentation of papers dealing with languages and literature in all fields. It, too, maintains a journal which is widely circulated.

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 life, customs, and literature of countries where the language is native.

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 in national and state political life.

The International Relations Club, similarly organized and conducted, concerns itself with international problems and also sponsors addresses by speakers interested in international affairs.

The Association of Carolina Scientists performs a similar function in the field of science as it relates to social and economic questions.

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

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

Glee Clubs for Men and Women

Symphony Orchestra

University Band

Chapel Hill Choral Club

Alpha Rho Chapter of Phi Mu Alpha (Honorary Musical Fraternity)

Iota Tau Chapter of Sigma Alpha Iota (Honorary Musical Sorority)

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 design of scenery, stage settings, and lighting effects. It maintains the Playmakers Theatre and the Forest Theatre.

The *Young Men's Christian Association*, organized at the University in 1859, seeks by precept and example to encourage right and wholesome living and is open to all male students.

The *Young Women's Christian Association*, similarly, is the religious, social, and welfare agency for women students. Both of these organizations maintain the Y. M. C. A. Building and are adequately staffed with secretaries.

The Council for Religion in Life gathers representatives of every creed and denomination active in the community for the purpose of fostering the broad and interdenominational aspects of religion through sermons and other religious activities.

In addition to the organizations open to students, many departments and schools sponsor clubs, seminars, and scholastic fraternities devoted to particular professions and fields of learning. Information concerning them is available in the offices of departments and schools.

EXPENSES

The University reserves the right to make, with the approval of the proper authorities, changes in tuition and any 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 prior to 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 prior to 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 appeal 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 code.

The tuition rates for students registered in the General College, College of Arts and Sciences, School of Commerce, and Graduate School are as follows:

Residents of North Carolina, each quarter.....	\$27.00
Non-residents of North Carolina, each quarter.....	96.00

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

FEES:	<i>General College and Arts & Sciences</i>	<i>Commerce</i>	<i>Graduate</i>
Matriculation	\$21.00	\$21.00	\$21.00
Student Activities	5.00	5.00	3.85
Materials		2.00	
Laundry Deposit	10.00	10.00	10.00
Woman's Association	1.00	1.00	1.00

The matriculation fee covers use of physical education facilities, infirmary, library, cost of registration, debates, 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 Commerce. Women students pay the Woman's Association fee.

Laundry Deposit

Students are required to make a deposit of \$10.00 at the time other fees are payable each quarter to cover laundry service at the University Laundry. When the amount of this deposit has been exhausted, an additional deposit will be charged. Any amount not used will be refunded at the close of the Spring Quarter, except that an average minimum charge of twenty-five cents a week will be made against each student's account.

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
Art 83	2.00
Art 50	5.00
Art 44, 45, 46, 48, 49, 80, 81, 82, 84, 109, 110.....	7.50
Art 85, 104, 105, 106, 108.....	10.00
Bacteriology 51, 107, 112.....	6.00
Bacteriology 110	7.50
Bacteriology 101, 104, 115, 116, 117, 301, 302, 303.....	10.00
Bacteriology 220	12.00
Biological Chemistry 101, 102, 103, 201, 202, 203, 301, 302, 303....	10.00
Botany 1	2.00
Botany 41, 42, 102, 103, 104, 111, 112, 113, 141, 151, 153, 155, 157, 166, 176, 211, 212, 213, 251, 252, 253, 301, 302, 303.....	4.00
Botany 45	6.00
Botany 145, 147	10.00
Chemistry 1, 2, 3, 83.....	3.00
Chemistry 31, 41, 42, 51, 61, 62, 63, 145, 146, 147, 148, 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 170.....	3.00
Commerce 66	1.00
Commerce 172, 173, 175, 177, 179.....	2.00
Commerce 71, 72, 157.....	3.00
Commerce 178	7.50
Dramatic Art 40, 55	1.50
Dramatic Art 61, 63, 64, 65, 66, 67, 71, 75, 85, 193, 202.....	2.00
Dramatic Art 155, 156, 157, 201.....	3.00
Economics 171, 172	2.00
Economics 170	3.00

Education 71	1.00
Education 82, 84a, 84b, 86, 88, 90, 92.....	10.00
English 40, 44, 55, 56.....	1.50
French 84	10.00
Geography 39, 75	1.00
Geography 38	2.00
Geography 118	2.50
Geography 71, 171	3.00
Geology 1, 41, 42.....	2.00
Geology 117, 121, 164, 224, 225, 226, 227, 228, 229.....	2.50
Geology 61, 64	3.00
Geology 102, 103, 104, 105, 106, 107, 108, 144, 145.....	3.50
Geology 221, 222, 223	4.00
Geology 109, 241, 242, 244, 245, 261, 262, 285, 286, 287, 288, 289	5.00
Geology 101, 147	7.00
History 1, 2, 175.....	1.00
Journalism 53, 54, 55, 57, 59, 62, 63, 72, 73.....	2.00
Journalism 67, 80	5.00
Mathematics 41, 42	1.00
Mathematics 51, 52, 123.....	4.00
Music 41, 54, 55, 56.....	1.00
Pharmacology 55	5.00
Pharmacology 161, 162, 301, 302, 303.....	10.00
Pharmacology 171lab	15.00
Physical Education 221.....	5.00
Physics 42, 52, 53, 55, 56, 57, 120, 141, 153, 158, 162.....	3.00
Physics 20, 24, 25.....	4.00
Physics 45, 91, 92.....	5.00
Physics 51	15.00
Physiology 51, 141, 301, 302, 303.....	5.00
Physiology 142, 201, 202, 206, 211, 212.....	10.00
Political Science—Courses 41-185 incl., 210-331 incl., and 361....	1.00
Psychology 122, 130, 133, 230.....	1.00
Psychology 126, 135	1.50
Psychology 125, 132, 136.....	2.00
Psychology 24, 25, 147, 148, 149, 150, 151, 152, 153, 181, 201, 202, 205, 251, 252, 253.....	3.00
Radio 71, 72, 73, 81.....	2.00
Radio 42	3.00
Social Science 1, 2.....	1.00
Social Work 215, 216, 217, 218, 220, 221.....	25.00
Social Work 219	15.00
Sociology 133	1.00
Spanish 84	10.00
Zoology 1	3.00
Zoology 41, 42, 106, 107, 108, 109, 110, 111, 112, 209, 210, 211, 212, 215	7.50
Zoology 316	\$7.50 or more
Zoology 104, 105	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.

Delayed Registration

The penalty for delayed registration for any term is one month of strict attendance probation for each day of delay. Any student registering later than the time appointed for his registration must pay an additional fee of \$5.00. No appeal from either attendance probation or the late registration charge will be granted, unless the delay is due to circumstances clearly beyond the student's control. Such an appeal must be made in writing to the Chancellor, must show clearly good and sufficient 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 \$5.00, payable when application for degree is made. A cap and gown rental fee of \$1.75 is made to recipients of Bachelors' degrees, and \$2.00 to Masters' and Doctors'.

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 an extra fee of \$5.00.

Dormitory Accommodations for Men

Accommodations for approximately 2,150 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 six dollars.

Dormitory Accommodations for Women

Seven dormitories provide excellent accommodations for 676 women students. Spencer, Smith, Carr, and Alderman Halls, and Archer House are for undergraduates, while Kenan Hall is reserved for graduates and professional students, and McIver Hall is occupied by both undergraduates and graduates.

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 six dollars.

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. Students are required to provide, however, pillows, bed linen (for single beds), blankets, and towels.

The cost of room and board and details concerning payments may be found in the Handbook for Women Students or by correspondence with Dr. Katherine K. Carmichael, Dean of Women.

Boarding Accommodations

The University operates the conveniently located Lenoir Hall Cafeteria and the Carolina Inn Cafeteria for the benefit of the students. Well-balanced menus are offered at standard prices. Meal ticket books are sold for \$5.00.

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

Board at \$45 a month, estimated vacations eliminated....	\$405.00
Dormitory room, at \$7.50 a month, plus dormitory social fee of \$1.00.....	68.50
*Tuition	81.00
Matriculation and students' fees, estimated for freshman year	73.90
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.....	\$693.90

* Tuition for out-of-state residents in all schools except Medicine is \$288.00 a year.

Tuition for professional schools: Pharmacy, \$100.00 a year; Law, \$100.00 a year; Medicine, \$299.00 (tuition, matriculation, laboratory fee, and student activities fee) a year; Library Science, \$100.00 a year. Tuition for out-of-state residents in Medicine is \$399.00.

PECUNIARY AID**Fellowships and Scholarships**

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. Ledoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed, and yields \$300 annually.

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

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 1831.) Bartholomew Figures Moore, of Raleigh, 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, bequeathed the sum of \$5,000 to be added to this fund to be used for the same purpose.

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, a valuable tract of land of 1,460 acres, known as Jones' Grove, in Chatham County. The will provides that rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor 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 of the value of \$75 each.

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; but if tuition is ever made free, the income shall be used toward paying the salaries of professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of \$75.

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

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships were founded by the generosity of the late Mr. Eugene M. Armfield, of High Point, N. C., a member of the class of 1888.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and the late Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE DONALD FAIRFAX RAY SCHOLARSHIP. (Established in 1919.) Mrs. N. W. Ray, of Fayetteville, N. C., has 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 by the Committee on the Holt Fund 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 ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni, and they vary in stipends according to the funds in hand.

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 good for tuition in the Academic Department.

THE GEORGE NEWBY TOMS SCHOLARSHIPS. (Established 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. This scholarship was established in 1931 by Mrs. James M. Brown in memory of her daughter who served with unusual devotion as secre-

tary of the School of Commerce of the University for several years. This scholarship is awarded to a worthy student who is dependent upon his own efforts to secure an education.

THE GENERAL ROBERT RANSOM SCHOLARSHIP. This scholarship to the value of \$200 is awarded each year to a lineal descendant of a Confederate Veteran. It is awarded and controlled by the United Daughters of the Confederacy in North Carolina.

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. One scholarship, founded in 1928 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. Value annually \$100.

THE MARK R. BRASWELL SCHOLARSHIPS. (Established in 1938.) In memory of Dr. Mark R. Braswell, Class of 1888, of Rocky Mount, 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, in its discretion, may extend the tenure, thus enabling the award to be made to a previous holder. The basis of award is 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, Va., 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 scholarships, each valued at \$500 annually and awarded every fourth year to an entering freshman, who shall be a native-born resident of North Carolina and who shall be nominated by his high school or preparatory school as its candidate for the scholarship. 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 winner of the scholarship shall be announced by May 20. He shall have tenure of the scholarship for four years provided, in the opinion of the Committee, he maintains high standards both in morals and in scholarship. The basis of selection shall be high scholastic rank, character, qualities of leadership, achievements, physical health and vigor, and promise of future distinction. One scholarship was awarded in 1941, to be reawarded in 1945 and each fourth year thereafter. A second scholarship was awarded in 1943, to be reawarded in 1947 and each fourth year thereafter.

BERNARD-GRAIL SCHOLARSHIPS. (Established in 1938.) One or more scholarships of \$75 each, maintained by interest from the Grail Loan Fund, will be awarded each fall to worthy and outstanding undergraduate students who have been enrolled in the University for at least two consecutive quarters immediately preceding the awarding of the scholarships. These scholarships are controlled by the Faculty Scholarship Committee assisted by two members of the Order of the Grail. 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 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.) Present value \$100. The holder 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 in August of each year, is based on character, scholastic rank, qualities of leadership, achievements and promise of future distinction in music and dramatic art.

THE MARVIN B. SMITH, JR., MEMORIAL SCHOLARSHIP. (Established in 1944.) Endowed by Mr. and Mrs. M. B. Smith, Sr., of Burlington, N. C., as a memorial to their son, Marvin B. Smith, Jr., of the Class of 1926. The fund maintains a scholarship valued at \$300 annually and awarded each fourth year to an entering freshman who plans to have his major work in the School of Commerce. Applicants must be native-born residents of North Carolina who shall be nominated by their high school or preparatory school for the scholarship. The tenure of the

scholarship is for a period of four years, provided the holder of the scholarship maintains high standards both in morals and in scholarship. The basis of selection shall be high scholastic rank, character, promise of business leadership, and financial need. The first award was made in the spring of 1945 for the academic year 1945-1946 and will be made every four years thereafter.

THE CHI PSI SCHOLARSHIP. (Established in 1946 by the Trustees of the Chi Psi Fraternity Educational Trust.) Scholarship not to exceed \$200.00 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 qualifications of leadership.

None of these scholarships is open to students in the Schools of Law, Medicine, Pharmacy, Library Science, and Public Health. 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.

All applications for scholarships must be filed in the Student Aid Office. The Committee on Endowed Scholarships makes the awards, annually, on or about June 15 and from time to time during the year. All applications must be in the regular form prescribed by the University. Blank forms are supplied on request to Mr. Edwin S. Lanier, Director of Student Aid.

Free Tuition

Free tuition is given to indigent residents of North Carolina who are also under bodily infirmity. Information and application forms are available upon request to the Director of Vocational Rehabilitation Division, State Department of Public Instruction, Raleigh, N. C.

Loan Funds

THE DEEMS FUND. (Established in 1879.) A fund of \$600 was established by the Rev. 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, Lieut. Theodore Disosway Deems. In 1881 the gift was greatly enlarged, through the munificence of Mr. William H. Vanderbilt, by a gift of \$10,000 "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of the fund can be used for loans. It became available during the session of 1908-1909.

THE HOGUE FUND. A fund of \$4,000 has been established by the Rev. R. W. Hogue, of Baltimore, the income from which is to be loaned to worthy students in the University.

THE HEWITT FUND. A fund of \$18,700 was established in 1916 by the bequest of Mr. Joseph Henry Hewitt, of Princess Anne County, Virginia. Only the income from this fund can be used for loans to "needy and deserving students" of the University. This fund became available during the session of 1919-1920.

THE HOLT FUND. A fund of \$10,000 has been established by Mr. Lawrence S. Holt, Jr., of Burlington. The principal of this fund is to be loaned to "worthy and needy students of the University." The income from this fund is to be used in establishing four scholarships in the University. It became available during the session of 1920-1921.

THE VICTOR S. BRYANT FUND. A fund of \$7,500 has been established by the bequest of Mr. Victor S. Bryant, of Durham. The principal and the interest of this fund can be used for loans to "worthy and needy young men" at the University. This fund became available during the session of 1920-1921.

THE SEELY FUND. A fund of \$1,000 has been established by Mr. F. L. Seely, of Asheville, the principal of which is to be loaned to worthy and needy students, and the income therefrom to be added to the principal. This fund became available during the fall of 1922.

THE E. S. BLACKWOOD MEMORIAL LOAN FUND, created by bequest of Miss Katherine B. Underwood, of New York City. This fund 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 the subsequent gifts from Mr. Alexander B. Andrews, of Raleigh, N. C. 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 fund to be known as the Joseph E. Pogue Loan Fund. 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 ALUMNI LOYALTY LOAN FUND. Established on June 30, 1930, by the advance of \$12,200 out of the Alumni Loyalty Fund.

THE ALDEN JOSEPH BLETHEN III MEMORIAL LENDING FUND. During the fall of 1930, Col. C. B. Blethen, of Seattle, Wash., 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. A fund of \$713.32 advanced by the Rockingham County Alumni Association, available since January 11, 1932. It may be recalled by the lender as it may desire.

ESCHEATS FUND. According to State law, clerks of court are directed to forward to the University money included in estates for which no heir can be discovered. For these funds the University is merely custodian for a period of years during which any heir discovered may legally claim the funds. During this period the money is placed in the Student Loan Funds as a temporary investment.

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 LOAN FUND OF THE WOMAN'S AUXILIARY, N. C. PHARMACEUTICAL ASSOCIATION. A fund of \$300 was established by the above-named organization in 1932 for use by students of pharmacy. It has been increased annually and now amounts to \$2,173.37.

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 Superintendent and the Chairman of the Board of Trustees of said high school.

THE JOHN B. WEAVER LOAN FUND. A fund of \$1,915 established by Dr. William Jackson Weaver of Asheville, North Carolina, in memory of his father, John B. Weaver. This fund became available July 6, 1937, and is administered under the same terms and conditions as the Deems Fund.

THE SHERMAN LOAN FUND. A fund established in 1939 by Dr. Joshua Sherman, Class of 1906, of Lancaster, Pa., 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, recipient of loan must comply with scholastic and other requirements imposed by the University Loan Fund Committee.

THE WINSTON-SALEM DRUGGISTS' LOAN FUND. Organized Druggists of Winston-Salem in 1942 gave \$200 as an addition to the loan funds used to assist 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 of the administration of such funds.

The Emergency Student Loan Fund

In the winter and spring of 1932, the University confronted 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 course. 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, N. C., 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, 1897, of Winston-Salem, N. C.

THE BLAIR LOAN FUND. A fund of \$500 established March 2, 1932, by the Hon. David H. Blair, 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, N. C.

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, N. C., to be used first by a designated student. When repaid, Mrs. Kenan will indicate its further usage.

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 by the organization named above with the request it be set so as to receive annual additions from the donors. It has been available since March 29, 1932.

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, 1889, of New York City, in memory of his son, the late George Newby Toms, 1928.

THE MARGARET MCCAULL CARMICHAEL LOAN FUND. A fund of \$1,000 established by W. D. Carmichael, 1897, on May 25, 1932. Mr. Carmichael is a resident of Durham, N. C., New York City, and Chapel Hill.

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

THE GEORGE BASLEY HISS LOAN FUND. A fund of \$10,000 established by Mrs. Bertha T. Hiss, of Charlotte, N. C., in memory of her husband, George Basley Hiss. This fund has been available since June 30, 1932.

APPLICATIONS 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 the legal rate of interest. Applications should be made to the Student Aid Office in advance of registration.

Self-Help Work

Many students earn a part of their expenses by many forms of honorable labor. Students work in the Library, 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 Mr. Edwin S. Lannier, Director of Student Aid, before July 1, after which the jobs are assigned.

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

The Committee, in its best judgment, assigns the available jobs to those who are most urgently in need of financial aid and who show high scholastic achievement. Each applicant is notified by personal letter on or about July 15 of the Committee's decision on his or her application.

MEDALS AND PRIZES

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange County, in memory of their father, Willie Person Mangum, Class of 1815, is continued by three lines of his descendants as follows: Miss Preston M. Leach of Washington, D. C., Mr. Willie P. Mangum Turner of Winston-Salem, N. C., 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 during his four years prior to graduation has best exhibited the qualities of oratory, debate, and scholarship.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of \$10 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 1899.) This prize was established by the late Mr. R. W. Bingham, in memory of his great-grandfather, 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. No student will be recommended for the prize unless he attains 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 to commemorate the 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 the fifteenth of February. Papers are required to be handed in by the fifteenth of May. The Department of Sociology will select the subject and act as judges of 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 Williamsston, 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. This medal is given annually by Lehn and Fink of New York City.

THE ALGERNON SYDNEY SULLIVAN AWARD. (Established in 1928.) To be bestowed annually upon one man and one woman of the graduating class, and those who receive it shall have demonstrated their worthiness to typify that spirit of brotherly love which was the cornerstone of the life of Mr. Sullivan. The Award shall in no wise be based upon scholastic, athletic, or other collegiate attainments, but rather upon that quality, much broader in its scope, which is best described as a desire to be of service.

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 student 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, established in 1941 an annual award of \$50, 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 Hon. 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 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.

REGULATIONS

Special Notice to Students

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

Registration

All students are expected to present themselves for registration 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. Failure to attend to this matter before registering causes extra expense to the University, and entails for the student the payment of an extra charge of five dollars (\$5.00). Bills for tuition and fees are payable at the time of registration. For the later terms all students except those in the School of Law must register according to a schedule published immediately before the close of preceding terms.

Registration for credit for any course is limited to the first seven calendar days of a term, unless the late registration is approved by the instructor concerned, the Dean, and the Administrative Board (or the Special Faculty) of the school.

Payment of Bills

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

* Students transferring from other institutions should have transcripts of their former records sent at least two weeks in advance to the Director of Admissions, and should present themselves for registration on the first day of registration preceding the opening of their first term of residence; freshmen students also will register on that day.

Delayed Registration

The penalty for delayed registration for any term is one month of strict attendance probation for each day of delay. 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 either attendance probation or the late registration charge of five dollars will be granted, unless the delay is due to circumstances clearly beyond the student's control.* Such appeals must be made in writing to the Chancellor, must show clearly good and sufficient 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 without the permission of his Dean to take fewer than fifteen hours a week. 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 term; one of twenty-one or more hours a week requires a scholastic average of at least B in the preceding term and the approval of the student's Dean.

A student desiring to change his courses must make written application to his Dean for the desired changes. The application will be considered by the Dean and will be granted only after a careful consideration of the facts in each case. The written permission of the Dean must be presented at the Central Office of Records, room 302, the South Building, and payment must be made of the fee of *twenty-five cents for each item of change.*

Changes in registration are limited to the first seven calendar days of a term. No refund of sums paid for tuition will be made for courses dropped after the period of seven calendar days, except upon the written recommendation of the Dean concerned.

Assignment of Rooms

The rooms in the University dormitories are assigned to students by the Cashier in the order of application, 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, a student must file with the Cashier before June 10 an application and a deposit of \$6.00 as an option. Double rooms must be applied for by both intending occupants. 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 shall be deemed a fraudulent transaction. The penalty for violating this rule shall be the forfeiture of the room by the new lessee.

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

No dogs shall be kept in the University dormitories. 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, page 63.

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 (48) 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 in all cases are expected to keep a daily record of attendance and to report to the Central Office of Records the name of any student who has been absent three consecutive meetings of a class.

Instructors are expected to 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 knows extenuating circumstances he must confer with the instructor before the student is actually excluded.

Any student who has attained the honor roll during two successive terms shall be exempt during the ensuing term from the regulations governing absences and shall be exempt thereafter as long as that student 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 shall be forfeited if that student is absent without excuse immediately before or immediately after holidays; (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 for this purpose 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 best judgment in the matter of allowing a student to remain in residence after having been dropped from one or more classes. The Deans will also cooperate with the instructors in bringing students to a realization of the consequences of excessive absences.

It is the duty of instructors to report to the Central Office of Records all absences occurring at the *beginning of each term and all those occurring immediately before and immediately after holidays. The penalty for such absences is loss of membership in the student body. Favorable action (for good cause) by the Committee of Deans is necessary before the student may be reinstated in the University; moreover a fee of \$2.50 is charged the student for each such absence, with the proviso that the total fee shall not exceed \$7.50.

* The Departments are expected to cooperate with the Deans in getting classes accurately organized by remaining on duty the whole day for the first few days of each term.

Absences from class attendance for cause may be excused. Such absences are those due (a) *to 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 to be issued by a Recorder; (b) †those due to actual illness, certified to by the physician who attended the student in person during illness; and (c) *those due to emergencies caused by extraordinary circumstances, when excused by the Dean of the School concerned.

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 thereof 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 that student has attended at least 75 per cent of the class meetings of the course during the term in which it has been taken by him.

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.

OTHER REGULATIONS GOVERNING ATTENDANCE

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, the reason for his failure be circumstances clearly beyond his control.

* Such authorized leaves of absence must be secured in advance.

† Excuses for illness must be reported within forty-eight hours from time of the beginning of the illness.

EXAMINATIONS

COMPREHENSIVE EXAMINATIONS

A comprehensive examination in the field of the major was established for all students in the College of Arts and Sciences and in the School of Commerce beginning with the class of 1930. It was removed as a general requirement in the fall of 1941. Only students who are candidates for honors are now required to take a comprehensive examination. Students who finished their course work between 1930 and the fall of 1941 but who have not passed the comprehensive examination may secure the degree either by passing a comprehensive examination or by registering in the University for at least one term so as to come under the present rule.

QUIZZES

By action of the faculty quizzes are not to be given during the last five days of any quarter.

SPECIAL EXAMINATIONS

A special examination may be taken by a student who has received the condition grade (E) at the period of the special examinations in the Fall. Provided he has no conflict with a course regularly taken by him in the term, such a student may take the examination with the class in the same subject at any regular term examination within a year after he has made the grade E. A senior who makes a grade of E in his last term of residence is allowed to take a special examination for removal of the E not earlier than three days after his last examination in that period of examinations. The grade E becomes F if the student fails to pass the re-examination, whether taken in the Fall or at some other time.

Examinations to remove the grade of E at other times than those specified in the preceding paragraph may be arranged between the instructor involved and the Dean of the School involved.

Special examinations for students who have been officially excused from regular examinations on account of sickness or have been absent on account of some necessary cause and therefore excused may be held at suitable times fixed by a Recorder and the instructors concerned. Such examinations must be taken within twelve (12) months of the date of absence.

To be entitled to take a special examination within a term, or at the September period, or at a regular term examination

period, the student is required to file with a Recorder at least one week prior to the time for the examination a written notice that he desires to take such examination.

Papers handed in at a special examination by students who have been officially excused from the regular examination will be graded; 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 the nature of which is such as to make written examinations unnecessary. *Approval of such exceptions must be secured in advance from the Dean of the College of Arts and Sciences.*

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.

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 in 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: 1st—regularly enrolled members of the class whose names have been reported from the Office of Records to the instructor as having registered in due form for the course; and 2nd—those whose names have been reported from the Office of Records as having the right to take special examinations on that course.

Students absent from an examination without an official excuse or present and failing to submit examination papers are reported "absent." This mark is equivalent in every respect to grade F or failure, and is so recorded in the 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 should not report a grade for any student whose examination paper lacks this pledge.

* In exceptional cases arrangements can be made to take examination *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 College of Arts and Sciences or to the Dean of the School in which the student was registered in this University.

Schedules of examinations at the ends of the terms and in the Fall are to be so arranged that examinations set for the last day of the period shall be set for the first day of the next period.

The examinations for the removal of conditions and for advanced standing will be given in 1947 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 A.M.
Botany	Chemistry
Latin	Commerce
Journalism	Philosophy
	Dramatic Art
2:00 P.M.	4:30 P.M.
Music	Any examinations made
History	necessary by conflicts.
Mathematics	
Political Science	

STANDING

After the close of each term 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:

Grade A, Excellent.	Grade D, Barely passed.
Grade B, Good.	Grade E, Conditioned.
Grade C, Fair.	Grade F, Failed.
*Grade I, Work incomplete.	

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 term, and his registration for the next term following this term 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 term following that in which he receives it. The Secretary of the Committee on Conditions in English Composition, Mr. Hugh Holman, is to determine those who need remedial work.

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

Any student, after conference with the instructor concerned, may appeal from a "course grade," provided the appeal is presented in writing to the Chancellor within thirty regular college days after the grade has been reported. The Chancellor, after bringing the appeal to the attention of the head of the department concerned, will refer it to the Administrative Board of the College or School in which the student is enrolled. The Board's decision shall be final.

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 overall average of C.

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

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 such time as 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 overall 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 30 quarter hours of work in his major.

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 some academic work in each term, and a total of at least thirty quarter hours before beginning his fourth quarter. After the freshman year (three quarters) a student must pass at least five quarter hours in his first quarter to be eligible to re-enter the following quarter, and must pass a total of *thirty-five quarter hours each three successive quarters* to be eligible. After the sophomore year, or first six quarters, the student to remain eligible must pass at least five quarter hours each quarter, twenty quarter hours in any two consecutive quarters, and thirty-five quarter hours 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 Committee of Deans by means of a written petition stating his case and sent to the Registrar's office or to his Dean. Deficiencies may be made up by correspondence work or in the summer quarter. In three quarters, therefore, a freshman must pass at least thirty quarter hours,

* For the purpose of this rule freshman courses in hygiene and physical education are not included in "academic work," but they may be counted in the total of thirty quarter hours required in three quarters.

or thirty-five if he is making up a shortage by correspondence work or in the summer quarter; and any student above freshman year similarly must pass at least thirty-five quarter hours in three successive quarters, or forty quarter hours if he is making good a deficiency by correspondence work or in the summer quarter.

No student who fails to qualify under the above 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 meeting together. *Notice is given that the rule may be waived only once for any individual.*

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 the Dean to be valid. 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, the South Building.

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

To a student withdrawing within the first ten weeks of a term, refund on a pro-rata basis of the amount paid for *tuition* is made.

Fraternities

GENERAL REGULATIONS. Students may join fraternities after registration at the opening of any term, 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, suspen-

sion, or other temporary restriction imposed for bad 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 render 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 term must have passed, during his last term of attendance, 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 during the course of any term as deficient in a majority of his classes 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 made good.

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 two regular terms.

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

PART THREE—THE COLLEGES AND THE SCHOOL OF COMMERCE

THE GENERAL COLLEGE

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
CORYDON PERRY SPRUILL, JR., A.B., B.Litt. (Oxon.), *Dean*

*The Administrative Board

ALLAN WILSON HOBBS, Ph.D.	CHARLES BASKERVILL ROBSON, Ph.D.
DUDLEY DEWITT CARROLL, M.A.	SAMUEL THOMAS EMORY, Ph.D.
STURGIS ELLENO LEAVITT, Ph.D.	EDWIN CARLYLE MARKHAM, Ph.D.
ARTHUR MELVILLE JORDAN, Ph.D.	OLIVER KELLY CORNWELL, M.A.
ARTHUR PALMER HUDSON, Ph.D.	GUY BERRYMAN PHILLIPS, M.A.
JOSEPH EDISON ADAMS, Ph.D.	

The Committee of Advisers in the General College

MICHAEL ARENDELL HILL, JR., A.M., <i>Associate Dean</i>	JAMES LOGAN GODFREY, Ph.D.
CECIL JOHNSON, Ph.D., <i>Associate Dean</i>	DONALD STANLEY KLAISS, Ph.D.
FLOYD HARRIS EDMISTER, Ph.D.	FREDERIC EDWARD COENEN, Ph.D.

General Statement

During his freshman and sophomore years in the University at Chapel Hill every student is a member of the General College unless he enters the School of Pharmacy. The studies in the General College are intended: (1) to offer an 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, and mathematics or Latin or Greek. The options within these requirements appear below in the summaries of the several programs. The student thus takes

* The Chancellor and the Registrar are *ex officio* members of this Administrative Board.

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 the degree in Liberal Arts or in Commerce 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, (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 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) teacher training, (3) journalism, (4) chemistry, geology, physics, medicine, and bacteriology (each with its special Bachelor of Science degree), and (5) pre-law, pre-medical, and pre-dental programs, with and without the A.B. degree. *The School of Commerce* presents curricula preparatory for the various careers in (1) business, (2) foreign trade and the consular service, and (3) law.

* Anyone who plans to prepare for teaching should consult immediately with the Chairman of the Division of Teacher Training.

NAVAL R.O.T.C.

All of the courses offered by the Department of Naval Science and Tactics count toward graduation. The academic courses offered by the Department are credited as follows:

- (1) In programs of study leading to the degree of Bachelor of Arts, Naval Science may be substituted for freshman social science and for one year 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 Commerce, the Naval Science courses may be substituted for one year of required natural science. In the junior and senior years, Naval Science courses count as non-divisional subjects and for one additional course to be approved by the Dean of the School.
- (3) In the other curricula leading to the degree of Bachelor of Science, Naval Science courses count as electives. In addition, the Dean and the Administrative 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 Mathematics 7-8 in the freshman year and Physics 24-25. It is recommended that they take Mathematics 31-32-33.

ADMISSION TO THE GENERAL COLLEGE

WOMEN: By order of the Board of Trustees women are not eligible for admission to the General College.*

AGE: All applicants for admission to the General College must be sixteen years of age before or by the actual date of their first registration.

CHARACTER: All applicants for admission to the University, including the General College, are required to furnish satisfactory evidence of good character as prerequisite to consideration for admission.

HEALTH: All General College registrants are required to report to the University Physician for a physical examination immediately before the period of their first registration. Trustee regulations make it mandatory that all matriculates satisfy the University Physician that they have been successfully vaccinat-

* Since September, 1940, young women who are permanent and *bona fide* residents of Chapel Hill Township are, by special action of the Board of Trustees, eligible for admission to the General College provided their applications and credentials are satisfactory.

ed against smallpox. Those unable to furnish such evidence, or who have never been vaccinated at all, will be vaccinated here. Since a smallpox vaccination sometimes disrupts one's normal activities for several days, it is highly desirable from the applicant's standpoint that this detail be attended to before he presents himself for registration.

ADMISSION TO FRESHMAN STANDING

BY CERTIFICATE: Formal application for admission to freshman standing, which is generally understood to mean candidacy for a baccalaureate degree, is made by submitting (1) personal data called for on an application form, and (2) a satisfactory statement of high or preparatory school achievement. Such a statement is expected to show (1) the completion of an accredited four-year high or preparatory school course, or its equivalent, which ordinarily means graduation; (2) fifteen units acceptable to us, including our minimal requirements as outlined below; and (3) that the applicant has attained the certifying average of the school last attended. Blank applications for admission may be secured by writing the Director of Admissions who, upon receiving the application, will undertake to secure directly from the proper official of the school graduating the applicant an appropriate certification of the applicant's record. Satisfactory evidence of one's eligibility for admission should be in the hands of the Director of Admissions at least fifteen days before the opening of the term in which it is desired to enroll.

Since the University operates on a basis of selective admissions in so far as non-North Carolina citizens are concerned, the above paragraph having to do with admissions to freshman standing by certificate should be supplemented as follows: In addition to the above-stated requirements, the procedure involves the writing of a scholastic aptitude, or psychological, test *and* a personal conference between a representative of the University and each candidate for admission. Exceptional circumstances now and again make it advisable to waive these additional requisites in the case of out-of-state candidates, but such circumstances do not often prevail. Information covering these additional requirements will be gladly furnished to interested persons upon request.

SUMMARY OF ADMISSION UNITS

The fifteen-unit minimum offered for admission should include the following *required* distribution, except as may be provided for in the explanatory notes appearing immediately after the section headed *Credit by Examination*:

English (four years).....	4	units
Algebra (one and one-half years).....	1½	units
Plane Geometry (one year).....	1	unit
Foreign Language (two years in <i>one</i> language).....	2	units
*Social Science (one year).....	1	unit
Natural Science (one year with laboratory).....	1	unit
Electives	4½	units

ELECTIVES: It is strongly urged and recommended that elective units be made up from the fields of mathematics (second year algebra for a full year, solid geometry for a half year, and plane trigonometry for a half year), social science (ancient history, medieval and modern history, modern history, English history, American history, American history and civics as a combination, civics, sociology, and economics), foreign language (Spanish, German, French, Latin, and Greek, with not fewer than two units in any one), and science with full laboratory (chemistry, physics, biology, botany, zoology, geology, physiology, and general science). One unit is allowed for a full year's work in any one of the named sciences, provided lectures or recitations *and laboratory work* are involved; if no laboratory work is included, any one of the named sciences, taken for a full year, carries only a half unit credit. *A credit of less than a half unit will not be allowed in any subject.*

In addition to credits from the fields specified immediately above, an applicant may offer subjects that are vocational in nature. Ordinarily no more than three units in vocational work may be credited; but the officer of admissions may, in his discretion, allow credit to the extent of four vocational units. It must in every instance be evident that such credits have been counted towards the high or preparatory school diploma. The officer of admissions has been granted discretionary authority to determine what may or may not be acceptable.

For certain curricula the requirement in foreign language is more precise than may be apparent from the statements made above. The courses of study leading to the following degrees require the language indicated: S.B. in Commerce, S.B. in Geology, and S.B. in Medicine, Spanish or German or French; S.B. in Physics, German or French; S.B. in Chemistry, German. It should be remembered that the *general entrance requirement* in foreign language may be satisfied by a two-unit offering in

* Preferably History of the United States.

Latin or Greek, but that at the beginning of a student's first year in residence he will be required to take up that language which is appropriate for the study program of his junior and senior years.

Although no applicant will be admitted on certificate with fewer than fifteen acceptable units, the committee on admissions will, in general, be primarily concerned with substantial evidence of a serious, well-defined purpose on the part of the applicant and with his apparent ability and determination to utilize effectively the educational and cultural opportunities available to all at the University.

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

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 over and above the minimum entrance requirements which is approximately equivalent to some of the freshman-year program in the General College. 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 sufficiently far in advance of the date of registration to enable him to arrange for the examinations. For this purpose, fifteen days' notice suffices. 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 he completes the advanced work (two or three courses where the courses are in sequence) with an average of "C" or better, he will be given credit for the omitted freshman work and with the grades that he made 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.

EXPLANATORY NOTES: (1) Algebra: An applicant who offers only one unit in Algebra but who otherwise qualifies for admission may absolve himself from the deficiency in either of two ways: a) he may take our Freshman Mathematics and, if he

passes on the first trial, the deficiency is automatically removed; or b) he may, with or without the aid of a private tutor, prepare for a special examination during his first year in residence, to be taken under the supervision of our Department of Mathematics. (2) Plane Geometry: An applicant who is unable to offer the required unit in plane geometry may, if he otherwise qualifies for admission, remove the deficiency in either of two ways: a) by passing a non-credit course offered by our Department of Mathematics in this subject, or b) by preparing for an examination during his first year in residence, to be taken under the supervision of our Department of Mathematics. (3) Foreign Language: An applicant who otherwise qualifies for admission but who is unable to meet the requirement in foreign language may remove the deficiency by taking, and passing satisfactorily, the elementary part of Spanish or German or French or Latin or Greek. These subjects are given during the regular academic year, September to June. Generally speaking, one unit in foreign language will not be counted towards the fifteen-unit total required to be offered. Since all our undergraduate curricula presuppose admission without deficiencies, it is very desirable that applicants with deficiencies seek 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 one's fourth quarter in residence, not counting the summer quarter.*

ADMISSION TO ADVANCED STANDING IN THE GENERAL COLLEGE

Persons seeking admission to the General College on the basis of work of college or university grade taken elsewhere are required to present for review and examination properly certified statements covering such work. Such transcriptions of record should be in hand at least fifteen days before the opening of the term in which the applicant desires to enroll. Formal application for admission must be made, and blanks for this purpose may be secured by writing the Director of Admissions. For statement of fee to be sent with an application, see footnote under Admission to the College of Arts and Sciences, page 137. Each transcript of record will be evaluated in terms of our General College requirements, and credits allowed may or may not be approximately equivalent quantitatively to the total secured in terms of the curriculum pursued at the college or university from which the applicant seeks to transfer. No credit is allowed for work done at non-standard or non-accredited colleges and universities unless a substantiating examination is passed in each subject for which credit is sought. These examinations must be taken here.

The right is reserved to reject wholly or in part any record submitted in support of an application for admission with advanced standing and to require a validating examination in any or all of the subjects for which credit is desired. Applicants who have failed to maintain a satisfactory scholarship record as distinguished from a record which is poor, or barely passing, or who, for any reason whatever, are ineligible to continue in the institution from which they seek to transfer are advised not to seek admission on any basis to the General College. We do not disregard at any time or under any conditions college or university records in order to admit applicants solely on the basis of their high or preparatory school records. It will be considered a flagrant violation of the honor code if any applicant makes a false statement in his application for admission with reference to previous college or university attendance in order to gain admission on the basis of a high or preparatory school record.

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 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 OF NON-RESIDENTS

Applicants from outside of North Carolina, i.e., non-residents of North Carolina, may be required to supplement their applications and transcripts by a personal interview with a representative of the University, a written examination, and other information requested by the Committee on Admissions. They will be expected to have ranked, academically, in the highest one-third of their graduating class. Exceptional circumstances now and again make it advisable to waive these additional requisites, but such circumstances are rare. Information covering these requisites will be furnished upon request.

Guidance of Students in the University

The University conceives education to be directed toward the best development of each individual. Since no two persons have exactly the same potentialities, it follows that no two students can profit equally by the same educational experiences. The University accordingly seeks to study each student in terms of

his own background of experience and his own potentialities of interest, ability, and cultural needs. Each student is the special charge of a member of the Committee of Advisers.

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 General College course. Then it is available to the departmental adviser in the major field of study chosen. Finally, this record is available for vocational guidance and for inspection by prospective employers.

In this way the University is making every effort to deal with each student from admission to graduation as an individual personality about whom a definitely responsible adviser always 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

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:	<ul style="list-style-type: none"> English 1-2 Social Science 1-2 Hygiene 11 Physical Education 1-2-3 	Choose one:	<ul style="list-style-type: none"> Chemistry 1-2-3 or 1-2-31 Geology 41-42 Physics 24-25 Botany 1—Zoology 1
Choose one:	<ul style="list-style-type: none"> Mathematics 7-8 or R-7X-8 *Greek 3-4 (or 1-2) *Latin 3-4 (or 1-2) 	Choose one:	<ul style="list-style-type: none"> †French 3-4 †German 3-4 †Greek 3-4 †Latin 3-4 †Spanish 3-4

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

† Students placed in Foreign Language course number 1 may meet the requirement with courses 1-2-3-4, provided they have no entrance deficiency in foreign language.

SOPHOMORE YEAR

Humanities, four courses as follows:

A. English Literature (10 quarter hours) and Classical Language and Literature (10 quarter hours).

or

B. English Literature (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).

or

C. Classical Language and Literature in the original or in translation (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).

A student choosing A. or B. may substitute a 5-hour course in Fine Arts (Music, Painting, Sculpture, or Architecture) designated by the English Department for the second course in English.

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

Economics 31-32

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

History 21, 22

History 41, 42

History 44, 45

Philosophy 21, 22, 41, 42

Political Science 41, 42

Sociology 51-52

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 physical science (Chemistry, Physics, Geology, Geography) and at least one course in a biological science (Botany, Zoology, Psychology). Selections may be made from the following courses:

Botany 41 and Zoology 41

Botany 41, 42

Chemistry 1-2-3 or 31 and 41 or 31 and 42

Geology 41-42

Physics 24-25

Psychology 24, 25

Zoology 41, 42

Mathematics 31, 32, 33

Physical Education 4-5-6

Bachelor of Science in Commerce**FRESHMAN YEAR**

Required:	{	Botany 1 or Zoology 1,	Choose	one:	{	*French 3-4 or 1-2-3-4
		Geography 38				*German 3-4 or 1-2-3-4
		English 1-2				*Spanish 3-4 or 1-2-3-4
		Social Science 1-2				
		Mathematics 7-9 or				
		R-7X-9				
		Hygiene 11				
		Physical Education 1-2-3				

SOPHOMORE YEAR

Required: { English 3 and 4 or 5 or 6 or Fine Art
Economics 31-32
Economics 41
Physical Education 4-5-6

Choose three:	{	Commerce 51	Choose one:	{	Botany 41, 42
		Commerce 71			Chemistry 1-2-3
		Commerce 66			or 1-2-31
		Political Science 41			Geology 41, 42
		(Foreign language 21-22)			Physics 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

Humanities, four courses as follows:

- A. English Literature (10 quarter hours) and Classical Language and Literature (10 quarter hours).
or
B. English Literature (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).
or
C. Classical Language and Literature in the original or in translation (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).

A student choosing A. or B. may substitute a 5-hour course in Fine Arts (Music, Painting, Sculpture, or Architecture) designated by the English Department for the second course in English.

Chemistry 31 if not taken previously, 51, 42, 41
Mathematics 31-32-33
Physics 24-25
Physical Education 4-5-6

* Commerce students must pass a test of reading knowledge, or make a grade of "B" in course 4, or continue with courses 21 and 22.

† Students placed in German 1 may meet the requirement with courses 1-2-3-4, provided they have no entrance deficiency in foreign language.

Bachelor of Science in Geology

FRESHMAN YEAR

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

SOPHOMORE YEAR

Humanities, four courses as follows:

- A. English Literature (10 quarter hours) and Classical Language and Literature (10 quarter hours).
or
B. English Literature (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).
or
C. Classical Language and Literature in the original or in translation (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).

A student choosing A. or B. may substitute a 5-hour course in Fine Arts (Music, Painting, Sculpture, or Architecture) designated by the English Department for the second course in English.

Chemistry 1-2-3
Geography 38

Physical Education 4-5-6

Bachelor of Science in Physics

FRESHMAN YEAR

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

SOPHOMORE YEAR

Physics 24-25, 54
English 3 and 4 or 5 or 6 or Fine Art
Mathematics 31, 32, 33
*German or French 21-22 (or *3-4)
Physical Education 4-5-6

* Students placed in French 1, German 1, or Spanish 1 may complete the requirement with courses 1-2-3-4, provided they have no entrance deficiency in foreign language.

Bachelor of Science in Medicine

FRESHMAN YEAR

Required:	{	English 1-2	Choose	one:	{	*French 3-4
		Chemistry 1-2-3 or 1-2-31				*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

English 3 and 4 or 5 or 6 or Fine Art	Elective, 1 course (2 courses if Chemistry 31 is taken in the first year)
*French 21-22 or	Physical Education 4-5-6
*German 21-22 or	Chemistry 31 (if not taken in the first year) and Chemistry 42
*Spanish 21-22	Botany 41 and Zoology 41-42 or Botany 41 and Physics 24-25

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.

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.

* Students placed in course number 1 may meet the requirement with courses 1-2-3-4, provided they have no entrance deficiency in foreign language. Pre-medical students are advised to choose French or German.

Bachelor of Science in Bacteriology

FRESHMAN YEAR

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

SOPHOMORE YEAR

Humanities, four courses as follows:

- A. English Literature (10 quarter hours) and Classical Language and Literature (10 quarter hours).
or
- B. English Literature (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).
or
- C. Classical Language and Literature in the original or in translation (10 quarter hours) and Modern Foreign Language and Literature (10 quarter hours).

A student choosing A. or B. may substitute a course in Fine Arts (Music, Painting, Sculpture, or Architecture) for one English course, designated by the English Department.

Required:

- Chemistry 31, 42
- Botany 41
- Physical Education 4-5-6
- Zoology 41, 42
- Bacteriology 51

THE COLLEGE OF ARTS AND SCIENCES

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D. Litt., *President*
 ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*

WILLIAM SMITH WELLS, Ph.D., *Dean*

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

*ALBERT IRVING SUSKIN, Ph.D., *Adviser*

†The Administrative Board

MILLARD BRECKENRIDGE, Ph.B., LL.B. EDWIN CARLYLE MARKHAM, Ph.D.

DONALD WOODS LOOMIS, B.S. ALBERT RAY NEWSOME, Ph.D.

HOWARD RUSSELL HUSE, Ph.D. HARDIN CRAIG, Ph.D.

CORYDON PERRY SPRUILL, JR., A.B., B.Litt. (Oxon.) GUY BERRYMAN PHILLIPS, M.A.

RICHARD JENTE, Ph.D. CLIFFORD PIERSON LYONS, Ph.D.

WESLEY CRITZ GEORGE, Ph.D. Ph.D.

GLEN HAYDON, Ph.D.

General Statement

Beginning with the year 1935-1936, the School of Education, the School of Applied Science, and the College of Liberal Arts were combined into one college, the College of Arts and Sciences. In addition to administrative simplicity there are certain other values to be gained from the combination. For example, under the present arrangement there can be a close cooperation among all the agencies in the University concerned with teacher training, and, on account of the importance of this training, such cooperation is sought.

Under the College of Arts and Sciences are grouped the arts courses with majors in the several academic fields, the special science courses comprising special curricula for Bachelor of Science degrees in Bacteriology, Chemistry, Geology, Medical Technology, Medicine, Physics, Public Health, and Public Health Nursing, and all undergraduate teacher training programs.

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. Thus only the junior and senior years are offered. The first two years for all students except those in the School of Pharmacy are in the General College, which has a Dean and Advisers whose purpose it is to enroll

* From December 1, 1946.

† The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of the Board.

and advise students in their basic college work and to direct their preparation for studies in subjects of their special aptitudes and interests.

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. Students who know at the beginning of the freshman year or at the beginning of the sophomore year what they expect to study have, through the options and the electives, the opportunity to prepare for almost any desirable specialization in the last two years. There has been set up, moreover, a Division of Teacher Training for the purpose of administration, guidance, and program-making in that field.

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 major subject. Those who plan to teach in secondary schools should seek admission to the Division of Teacher Training. The only students not so placed in divisions will be candidates for the A.B.-LL.B. and the S.B. in Medicine 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. There are variations from the numerical aspects of this rule due to special circumstances and among the divisions. *It is also understood that a student shall have the right to submit a program of his own, which may be at variance with the regular divisional arrangement, to the Head of a division, and, if it is approved by the Advisory Board of the division, he may follow it towards 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. When a certain number of hours are accepted in the major from another college it is required that of the hours taken here in the major the percentage of grades of C or better must be the same as the number 30 is of the total number 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 overall average grade must be at least C.

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

Students preparing for the study of medicine 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 (see page 147) 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 School. *Students preparing for dentistry* should take at least the first two years of the premedical work. 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. However, a student who desires to take a major in another department may still secure adequate preparation for medicine. 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, and 3; 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 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 work is of the greatest importance. All students interested in the study of medicine should attempt to stand in the highest third of their academic classes.

In general, the requirements for admission to the Medical School, in addition to the regular work in English, foreign language, and mathematics, are the following courses, or their equivalent: Chemistry 1, 2, 3, 31, 42, 61, 62; Botany 41; Zoology 41 and 42; Physics 24-25. (See S.B. in Medicine curriculum, below, which is the minimum preparation acceptable.)

In addition the following courses in the sciences are helpful in premedical education: Chemistry 63, 83; Botany 42; Psychology 24, 25, 146; Zoology 103-104, 110, 111; Physics 51, 54, and 57.

Naval R.O.T.C.

Students who expect to enter the College of Arts and Sciences but who wish to enroll in the Naval Reserve Officers Training Corps in their freshman year should plan all the work of the first two years carefully in consultation with their Advisers at the beginning.

*Admission

Admission to the College of Arts and Sciences is based upon the satisfactory completion of the first two years in this University or another institution of similar standards, or in an approved junior college. By order of the Board of Trustees, women may enter the College of Arts and Sciences on the same terms as men. In and after September, 1947, an average grade of C or better in the work offered for admission is expected.† Also, no hours of credit will be granted for a course with a D grade taken elsewhere. However, a course carrying the grade of D, not in the student's major, may be used to satisfy a subject requirement in the University. In cases in which there is doubt as to preparation, credits granted must be validated by work taken in this University.

In general students entering the third year of college, which is the first year in the College of Arts and Sciences, should present at least sixty-eight semester hours of college work, or one hundred and two quarter hours, including four semester hours or six quarter hours of hygiene and physical education. This work should include two years of work in English, two in one foreign language above the entrance units, two years in one or

* Each application for admission to advanced standing must be accompanied by a fee of five dollars (\$5.00) as an earnest of good faith. If the applicant is not accepted, the fee is returned; if he is accepted and enrolls as a student, the fee (having been deposited with the University Cashier) will be applied against the bill at his first registration; if he is accepted but chooses not to enroll as a student here, the fee will be forfeited regardless of the reason involved.

† A "C grade" means 80 or higher in percentage grades with 70 as the passing grade.

one year in each of two natural sciences with full laboratory work, two years in social science, including history, one year in mathematics or a classical language, one year of hygiene and physical education, and sufficient electives to make the full two years of college work.

In exceptional cases provision will be made for students who cannot meet the exact requirements, either to take the work needed 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. *There is an additional requirement that the full work of the last year shall be done in residence at this University.*

Students transferring from other accredited colleges to the College of Arts and Sciences of this University must meet the requirements of the first two years here, unless they present superior records 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.

Curriculum Leading to Bachelor of Arts

In order to secure the degree of Bachelor of Arts it is necessary that the student 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 in connection with the descriptions of courses offered by that department.

The minimal number of quarter hours for graduation is 192, including 6 quarter hours in hygiene and physical education. If a subject has five class meetings a week for a quarter this subject carries five quarter hours credit. Laboratory work is considered in this evaluation as one quarter hour for two hours of scheduled work in the laboratory. It is entirely possible that a student may accumulate the minimum number of hours for graduation but still not have met the requirements in his division. The requirements of the division must be met regardless of the number of quarter hours taken.

The Divisions

For the purpose of better educational policy in regard to the student's choice of courses, sequences of courses, etc., the faculty is divided into three divisions, the Division of the Humanities, the Division of the Social Sciences, and the Division of the Natural Sciences. As indicated above, another division has been set up for administration, guidance, and program-making in the field of teacher training. 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.

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 divisions 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 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.

After full consideration and discussion the divisions have arranged their general plans of operation with reference to requirements in the junior and senior years as will be shown below.

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

The Division of the Humanities

BERTHOLD LOUIS ULLMAN, Ph.D., *Chairman*

HARRY KITSUN RUSSELL, Ph.D., *Secretary*

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

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

NOTE: For the purpose of teacher training the Division of Teacher Training is considered as allied to each division.

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. The student who fails to register 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, Section 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 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, with the consent of the departmental committee, receive credit for the reading courses which he has completed.

The Division of the Social Sciences

ALBERT RAY NEWSOME, Ph.D., *Chairman*

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

This division includes the following departments of instruction:

Economics	Psychology	History
Philosophy	Sociology	Political Science
Physical Education		

NOTE: See the note on the Division of Teacher Training above in connection with the Division of the Humanities.

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 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

JOHN WAYNE LASLEY, JR., Ph.D., *Chairman*

ARTHUR ROE, Ph.D., *Secretary*

The following departments of instruction are included in the division:

Bacteriology	Philosophy	Psychology	Physics
Botany	Chemistry	Mathematics	Zoology
Geology			

NOTE: The place of the Division of Teacher Training is indicated above under the Division of the Humanities.

GENERAL STATEMENT

The general requirements in this division are as follows: six whole quarter courses or the equivalent in the department of major interest, six in allied departments of the Division, and six in departments in other divisions, in all a total of eighteen courses. The Dean is authorized to make such adjustments as are necessary in order that students with majors in science shall not have to take more than the standard number of hours for graduation.

The Division of Teacher Training

WILL CARSON RYAN, Ph.D., *Chairman*

GENERAL STATEMENT

By trustee sanction and under direction of the all-University Division of Education, a local Division of Teacher Training is established as an integral part of the College of Arts and Sciences for the purposes of administration, guidance, and program-making in the field of teacher training in the University at Chapel Hill.

Undergraduate students who desire to prepare for secondary school teaching will be admitted to the Division after consultation with the Chairman or his representative. Each student will follow the program of courses in Education outlined below. In addition he selects one of the following as his major field of preparation: English, French, Latin, Mathematics, Music, Natural Science, Physical Education, Social Science, Art. 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 second 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 should consult with the Chairman of the Division of Teacher Training regarding this. If the student chooses to prepare in only one field, his additional electives must receive the approval of the Chairman of the Division.

The Advisory Board of the Division of Teacher Training is composed of the members of the Department of Education and one representative from each of the other departments in the College of Arts and Sciences.

The following courses in Education are required of all students to meet the requirements for certification in North Carolina: Education 41, 71, 99, one course in Materials and Methods, one course in Directed Teaching, and one elective in Education.

DRAMATIC ART

Students who choose a minor program in dramatic art will take the following courses: Dramatic Art 63, 64, and two of the following: 155, 161, 162.

ENGLISH

Students who choose a major program in English will take: (a) English 81; (b) English 50; (c) one of the following: English 70, 95, 96; (d) one of the following: English 88, 84 or 141, or by permission 83 or 131; (e) one of the following: English 44, 45, 52, 53, 54, 55, 56, 95, 96; (f) two electives. A student may not take both 95 and 96 to satisfy requirements (c) and (e).

Students who choose a minor program in English will take: (a) English 81; (b) English 50; (c) one of the following: English 88, 84, or 141, or by permission one of the following: English 70, 83 or 131, 99, 125; (d) one of the following: English 52, 53, 54, 96, or by permission an elective.

FRENCH

Students who choose a major program in French will take the following courses: French 51; 52; 71; 72; 126; 145; and 50 (when required), or 109, or 192. Those choosing a minor program will take: French 50 (when required), or 51; 71; 72; and 145. French 50 is required of all students whose knowledge of grammar is considered unsatisfactory.

LATIN

Students who choose a major program in Latin will take the following courses: Latin 71 and 51 or 52; and four additional courses, one of which may be a course requiring no work in the Latin language, from the following: Latin 62, 76, 101, 102, 103, 104, 105, and 112. Those who choose a minor program will take Latin 71, 51 or 52, and two additional courses.

MATHEMATICS

Students who choose a major program in mathematics will take the following courses: Math. 31-32-33; Math. 103 and additional courses in mathematics to make a total of thirty quarter hours. It is recommended that the latter be selected from Math. 51-52, 104, 131. Those who choose a minor program will take twenty quarter hours from the major programs.

MUSIC

Students whose major for the A.B. degree is in music, and who desire to qualify for teaching, should plan their work so as to include, in addition to the regular courses in the major, the

courses in Education listed above. The student desiring to specialize in instrumental music should include at least two courses, selected according to his major instrument. Those who choose a minor program in music will take the following: Music 1, Music 14, Music 47-48 (or any two from Music 54, 55, 56), and three quarter hours instruction in voice.

NATURAL SCIENCE

Attention is called to the new program designed to prepare the student who desires the degree of Bachelor of Science in Science Teaching. The course requirements of the General College are to be met, as well as those of the Department of Education noted immediately above. Also three of the following sequences must be completed:

Botany 41, 42

Chemistry 1, 2, 3

Geology 41 and Geography 38, or Geology 41, 42

Physics 24, 25

Zoology 41, 42

Courses taken while the student is in General College may count towards satisfying this requirement, but at least two courses in the three sequences chosen must be passed with a grade of C or better. In addition, the student must complete with a grade of C or better four other courses from the natural sciences. These four courses, plus those needed to complete a total of 186 quarter hours, should be selected after consultation with the adviser in the department or departments of natural science concerned.

HEALTH AND PHYSICAL EDUCATION

Students who choose a major program in 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 four courses from the following: Physical Education 77, 78, 79, 86, 87, and Education 63.

SOCIAL SCIENCE

As prerequisite to either the major or minor program in social science and to satisfy certain basic certification requirements all students must have the following courses or their equivalent: Social Science 1-2, History 21-22, and Political

Science 41. It is recommended that these courses be completed by the end of the sophomore year. The student who chooses a major program may then pursue either of the following plans:

(1) A major of 6 or 7 courses in one of the following departments in the Division of the Social Sciences as prescribed by that department: Economics, History, Political Science, or Sociology and Anthropology; or

(2) A major in social science consisting of the following courses or their equivalent: Economics 61 or 31-32, two five-hour courses in history of junior-senior rank, Sociology 101 (except in case of out-of-state students who may substitute Sociology 53), and Sociology 51 and either 122 or 181.

Students who choose a minor program will take the prerequisite work mentioned under the major program and three additional courses selected from any of the following fields: economics, history, political science, or sociology.

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

Upon the completion of the courses in the General College and in the College of Arts and Sciences outlined below, with grades of C or better on at least half of the work, and before matriculation in the School of Law, and the completion of the first year of law to the satisfaction of the School of Law, a student may receive the degree of A.B., and, upon the satisfactory completion of the three years of law, the degree of LL.B., thus securing both degrees in six years instead of the seven years required for the two separately. The prescribed academic work is shown below.

Students pursuing the academic subjects listed in the combined A.B.-LL.B. and B.S.-LL.B. programs are hereby notified that the completion of the required academic courses does not necessarily mean admission to the Law School. To the extent that limitation of enrollment is necessary, 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

Hygiene 11

Physical Education 1-2-3

‡Foreign language, four courses

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

† Two courses in Latin or Greek may replace the mathematics requirement, provided the student meets by another language the regular requirement in foreign language.

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

History 71-72, or 44-45

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), 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 nine in number.

Bachelor of Science in Bacteriology

Bachelor of Science in Chemistry

Bachelor of Science in Geology

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

Bachelor of Science in Science Teaching

Requirements for the degree of Bachelor of Science in Science Teaching are listed above on page 145; for the degrees in Bacteriology, Chemistry, Geology, and Physics, in the headnotes to the Description of Courses of the departments concerned; and for the degrees in Medicine, Medical Technology, Public Health, and Public Health Nursing, immediately below.

Bachelor of Science in Medicine

The University recommends to each applicant for admission to its School of Medicine that he prepare himself as fully as his age and resources permit. If possible he should first secure a Bachelor's degree, either A.B. or S.B., before beginning his professional study. If this is impracticable, he may secure excellent

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

preparation by completing the academic curriculum, outlined below, leading to the degree of Bachelor of Science in Medicine. The degree is conferred upon the satisfactory completion of the first year of work offered in the School of Medicine.

NOTE: Students pursuing the academic subjects listed below are hereby notified that the completion of these courses does not necessarily mean admission to our School of Medicine. From the rather long list of applicants are chosen a maximum of forty-five who are deemed the most promising material for admission to our School. No arrangement exists for granting the degree of S.B. in Medicine for work in any medical school other than ours. Therefore, in order to secure our S.B. in Medicine, the student must complete the first year of work offered in our School of Medicine and in no other such school. To be eligible for the degree of S.B. in Medicine, 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	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	

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

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

† 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.

At least 30 quarter hours of 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 course, 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 foundation for graduate work leading towards 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 work in sanitation, sanitary chemistry, bacteriology, and other courses. 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 a Master of Science in Public Health.

FIRST YEAR

Alternative a or b: Mathematics 7-8, 41; Chemistry 1-2-3; English 1-2; *foreign language, 2 5-quarter hour courses; Social Science 1-2; Physical Education 1-2-3; Hygiene 11.

SECOND YEAR

Alternative a: †English 3-4; foreign language, 2 5-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.

* If the student enters the University with a foreign language deficiency, he must take two courses in the 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.

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 and 52; Mathematics 121; Mathematics 123; Mathematics 124; Mathematics 42; Economics 61; English 59; *Elective, one course.

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 may be in either one of two groups:

A. Those who meet the following requirements:

1. Satisfactory completion of 99 quarter hours in a recognized college including at least 12 quarter hours in Chemistry, 12 in Biology, 18 in English, 9 in Social Science, the amount of credit, not exceeding 99 quarter hours, extended for work in other colleges to be determined by the Committee on Admissions.
2. Graduation from a fully accredited School of Nursing, with credit not exceeding 48 quarter hours to be determined by the Committee on Admissions.
3. Satisfactory completion of a one-year curriculum in Public Health Nursing in the School of Public Health of the University of North Carolina. (45 quarter hours.)

B. Those who have not had college work before entering upon their professional training in Nursing but who meet the following requirements:

1. Graduation from a fully accredited School of Nursing with credit not exceeding 48 quarter hours to be determined by the Committee on Admissions.
2. Satisfactory completion of a one-year curriculum in Public Health Nursing in the School of Public Health of the University of North Carolina. (45 quarter hours.)
3. Two years' work in the College of Arts and Sciences of the University with 93 quarter hours including:
 - (a) ‡20 hours in English; (b) 10 hours in social science; (c) 24 hours in approved courses in the Division of Natural Sciences; (d) 27 hours in extra-divisional courses to be selected by the Adviser with reference to the need of the individual student; (e) 12 hours in free electives. Total, 93 quarter hours.

* It is suggested that some of the elective courses be taken from the following: Eng. 44, Zool. 41 and 109, Pol. Sci. 41-42, and 101, Chem. 61-62-63, Physics 120, Math. 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.

‡ Students qualifying in a placement test may be excused from 10 quarter hours in English and substitute 10 quarter hours of non-scientific work. A course in art or in music may be substituted for the last course in English literature.

THE SCHOOL OF COMMERCE

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
 ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*

DUDLEY DEWITT CARROLL, M.A., *Dean*

JOHN BROOKS WOOSLEY, Ph.D., *Chairman, Graduate Studies and Research*

MILTON S. HEATH, Ph.D., *Chairman, Committee on the Library*

REX S. WINSLOW, Ph.D., *Director of Bureau of Business Services Research*

*The Administrative Board

JAMES WILLIAM FESLER, Ph.D.

RICHARD J. MENDENHALL

HOBBS, A.B., LL.B.

ALMONTE CHARLES HOWELL,

Ph.D.

STURGIS ELLENO LEAVITT,

Ph.D.

ERLE EWART PEACOCK, M.B.A.,

C.P.A.

CORYDON PERRY SPRUILL, JR.,

A.B., B.Litt. (Oxon.)

HARRY D. WOLF, Ph.D.

JOHN BROOKS WOOSLEY, Ph.D.

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-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 immediate organization of the School of Commerce. The School occupies a place in the University organization which is coordinate in standing and equipment with the College of Arts and Sciences.

The undergraduate course of study, leading to the degree of Bachelor of Science in Commerce, covers a period of four years and is designed to give a foundation of broad and general culture and, at the same time, supply a definite and practical training to those who intend to engage in any of the great lines of industrial and commercial activity. For those desiring more intensive specialization, the School of Commerce offers graduate courses leading to the degree of Master of Science in Commerce.

Aim and Purpose

The phenomenal industrial development of the South in recent years has produced an imperative need for trained businessmen. The School of Commerce in a large sense is the ex-

* The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each Administrative Board.

pression of the University's desire to serve this special need of its own particular section. To this end substantial support has been accorded the School both by the University and the State as a whole. In consequence the School has been provided with a large and able corps of instructors, with spacious quarters in Bingham Hall, and thoroughly modern teaching facilities.

It is the purpose of the School of Commerce to provide its students with as thorough and scientific business training as it is possible to give within the range of the subject which it attempts to cover. Its teaching policy assumes that such training should consist not only of the requisite understanding of the principles and methodology which govern the organization and administration of typical business enterprises, but in addition an understanding of the problems and the larger relationships of the economic organization as a whole. In his attempt to master the technical and the vocational aspects of business, the student will not be permitted to lose sight of the social and cultural.

Naval R.O.T.C.

For information on the Navy Supply Corps program which is given in the School of Commerce see the section on the Department of Naval Science and Tactics.

Teaching Policy

Wherever possible, the plan is followed of presenting the subject matter of the various courses from the point of view of the executive, always bearing in mind that the executive's field of interest includes the broad outside relationships as well as the internal administration of his business. Adherence to this common point of view prevents confusion in the mind of the student and enables him to place the problems and practices of business in their true perspective.

Within the short space of time at his disposal, it is impossible for the student to investigate in detail the entire field of business. It is therefore the policy of the School of Commerce to supplement the general survey which is 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. The groupings have been made in such a way as to correspond to certain major functions which must be performed in the successful administration of a business enterprise.

These functions may be designated as follows: (1) production; (2) finance; (3) marketing and selling; (4) management of personnel; (5) risk and insurance; (6) accounting; (7) statistics.

Scope of Specialization

Specialization in the manner here indicated, however, does not begin until the senior year, except in the accounting, marketing, and merchandising groups. The School of Commerce accepts the principle that a broad and thorough training in fundamentals, as well as some maturity of mind, should precede any high degree of specialization. Whether the educational process be viewed as a training of the mental faculties, or as the acquisition of a fund of knowledge, it is equally imperative that the materials of study be definite and compact. Arrangement and treatment must be so designed as to assure results which are cumulative and which have continuity of direction.

To this end the undergraduate curriculum of the School of Commerce is arranged in logical sequence, with the same requirements imposed upon virtually all candidates for degrees until the senior year is reached. During his freshman and sophomore years in the General College the student is required to follow a path of study which closely parallels the liberal arts course. The first year's work includes English composition, mathematics, social science, biological science, and a *modern language. In the second year are courses in general economics; in English and American Literature; in a natural science; and an election of courses from business organization, accounting, general psychology, American federal government, and a continuance of the chosen modern language.

In his junior year the student devotes most of his time to required courses in economics, commerce, psychology, and government, which include money and banking, business organization, accounting, economic statistics, †general psychology, and †American federal government.

In the senior year specialization begins through the election by the student of his preferred group of courses from the list outlined above. It is to be noted that the freedom to elect does not apply to courses regarded singly, but only to courses as they are arranged in more or less standardized groups. Having chosen a given group, the student is expected to satisfy its requirements in full unless a substitute program has been submitted to and approved by the Administrative Board of the School.

* A written test of reading knowledge of one modern foreign language is a requirement in the School of Commerce. This reading test may be taken upon completion of the freshman language course or at the end of any succeeding quarter at the option of the student. A grade of "B" or better in the last term of freshman language or any later course is accepted as evidence of a reading knowledge of the language. A student may take additional language for credit.

† Courses in general psychology and in American federal government may have been elected already in the General College.

Importance of Graduate Study

From the preceding survey of the undergraduate curriculum it is apparent that those students who are desirous of securing the benefits of thorough specialized training and intensive research work should continue in the University for at least one year of graduate study.

The Administrative Board of the School strongly urges the advisability of such an additional year for the superior student. Equipped with his undergraduate training, unburdened of the formal routine of courses which have been preparatory in nature, the graduate student is free to concentrate his full powers upon the subject of his choice. His attitude changes from one of receptivity and acquiescence to one of active inquiry and initiative. He is charged with the responsibility of finding new materials and new arrays of facts, and of subjecting them to his own independent analysis, to the end that new relationships may be discovered or new evaluations made. His initiative, his analytical and creative powers, his quality of persistence, are tested and developed to a degree impossible of attainment in the undergraduate years.

The School of Commerce is prepared to offer graduate instruction and facilities for graduate research in the fields indicated by the senior study groups. Courses have been developed exclusively for graduate students. They are designed primarily for the encouragement and guidance of research activity, and in consequence are conducted informally and on a basis of close personal contact between professor and student.

Graduate Degrees

The School of Commerce offers through the Graduate School the graduate degree of Master of Science in Commerce. Candidacy for this degree is conditioned upon the holding of a degree of S.B. in Commerce from this institution or from another institution of approved standing where the work required in commerce is of substantially the same nature and volume. Graduates who transfer from other institutions and who did not specialize in Commerce may pursue graduate work in Commerce upon the completion of the essential undergraduate requirements in this field.

The Department of Economics and Commerce offers through the Graduate School the degree of Doctor of Philosophy. It is possible under this arrangement to take a major in either field and a minor in the other.

Graduates of other institutions desiring to enter as candidates for higher degrees should submit their records together with application for entrance to the Dean of the Graduate School.

The conferring of the degree of Master of Science in Commerce assumes as a minimum the completion of eight full courses or their equivalent as approved by the Dean, a residence period of at least one year, and the completion of a thesis which embodies the results of original research on the part of the student. (For further details see the catalogue of the Graduate School.)

Special Students

There are many young people already in business who feel the need of additional special training but who are unable to spend the full four years at the University, or who cannot provide proper entrance credits. Recognizing this, the School of Commerce will admit students of twenty-one years of age or over who cannot fulfill the entrance requirements, as special students, but not as candidates for degrees. Such students must supply satisfactory evidence of their ability to profit from the courses. Such evidence must include testimonials from former employers certifying to the term, nature, and quality of their work. A personal interview with the Dean also is recommended. Veterans of World War II will also be admitted as special students if they are approved by the Veterans' Administration as qualified to do work at the college level. Special students are admitted on probation.

Library Facilities

In addition to the facilities afforded by the general library of the University, the School of Commerce is equipped with its own special collection of materials. In the latter are contained a large number of the economic and business publications of recent years which may be of value to the student. An annual fund of about \$2,500 assures that the collection will be well maintained and kept up-to-date.

Especially noteworthy is the collection of periodical publications. Most of the important periodicals in the general field of business and finance are regularly received. In addition, the School of Commerce is a regular subscriber to over fifty trade journals, and to the statistical services of Moody, Brookmire, Gibson, the Babson Institute, and the Standard Statistics Company. The Harvard and Cambridge Economic Surveys also are provided.

A full-time librarian is in charge 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 are accorded graduate students who have access to the stack rooms and private desk space.

Lectures and Observation Trips

Students are expected to take advantage of the frequent opportunities to hear lectures offered by prominent businessmen who are invited to the University for this purpose. These lectures will prove of great value to the student in furthering his acquaintance with the practical aspects of business.

From time to time the classes in business subjects make visits to neighboring factories and other types of business institutions for the purpose of making first-hand studies of organization and administrative methods.

Business Clinics

In addition to formal lectures, the School from time to time arranges for recognized business leaders to come to the University for informal discussion of current business problems in their respective fields. The virtue of this arrangement is that the informal discussion of problems in a particular field will give the student a clearer understanding of the actual everyday aspects of business.

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 Commerce beyond the boundary of the campus.

The Bureau acts as a general clearing house for requests from North Carolina business and industry seeking assistance in the solution of business problems. It administers adult educational projects such as short courses, institutes, and workshops for business executives both on the campus and in North Carolina towns and cities. 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 Department of Economics and Commerce and cooperates with the placement office in filling the needs of business and industry for University trained men and women.

See the section of this catalogue devoted to the Extension Division for details of adult education projects conducted by the School.

The Business Foundation

In July, 1946, the Business Foundation of North Carolina 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 funds of the corporation now amount to over a half-million dollars, with definite prospects for large additions to this endowment. The funds will add greatly to the effectiveness of the School of Commerce both by enabling the School to command a more competent staff and by providing facilities for research in the business problems and procedures of this region.

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. Instruction in this subject is not offered by the University but can be secured in Chapel Hill in a private school.

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 thoroughgoing, scientific training for the business profession. It maintains high standards of membership based on the number and training of the faculty, the thoroughness of the work, the length and breadth of the curriculum, the number of students, the financial backing of the school, and the facilities for carrying on the work.

Student Habits

Training for business, if it is to be worthy of the name, should include at least two elements: first, an understanding of the principles and processes of business; and second, the practice of habits of work essential to business success. Observation appears to justify the conclusion that promptness, industry, systematic application, and honest performance are quite as vital to mastery in the business world as an understanding of the nature of industrial and commercial phenomena. It is wasteful, then, to allow students to proceed far in this

field if they are unwilling to fashion their habits in conformity with these essential requirements. The policy of the School will be to drop from its rolls any student who after a reasonable time fails to respond to the above standards. Attendance on classes and promptness and regularity in performing assigned work are judged in terms of the above principle.

Fellowships and Assistantships

Two teaching fellowships, each of a value of \$600 plus free tuition in the Graduate School, are awarded annually in the Department of Economics and Commerce. 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 prior to March 1.

The Ernest H. Abernethy Fellowship in Southern Industry, of an annual value of \$500 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, with stipends ranging up to \$450 plus free tuition in the Graduate School, are awarded each year. The duties consist of grading papers, conducting laboratories, construction of charts, etc.

*Admission

Admission to the School of Commerce is based upon the satisfactory completion of the first two years of college work given in the General College of this University or its equivalent certified by another institution of recognized academic standing.† By order of the Board of Trustees women may enter the School of Commerce on the same terms as men. Based on fifteen entrance units which conform to the admission requirements of the General College, the subjects covered in the first two years are as shown below.

* The outline of the work of the first two years is shown, since the required work differs in some particulars from that of the College of Arts and Sciences.

† See footnote on page 137 for fee to be sent with an application for admission.

FRESHMAN YEAR

Required:	{	Botany 1 or Zoology 1	Choose	one:	{	*French 3-4
		and Geography 38				*German 3-4
		English 1-2				*Spanish 3-4
		Social Science 1-2				
		Mathematics 7, 9				
		Hygiene 11				
		Phys. Education 1-2-3				

SOPHOMORE YEAR

Required:	{	English 3	Choose	one:	{	Botany 41, 42
		English 4 or 5 or 6				Chemistry 1-2-3
		Economics 31-32				Geology 41-42
		Economics 41				Mathematics 31-32
						Physics 24-25
						Zoology 41-42
Choose three from:	{	Commerce 51				
		Commerce 66				
		Commerce 71				
		Polit. Science 41				

Satisfactory completion of the first two years of college work is interpreted to mean that at least half the credits are of C grade or better (C on a percentage basis covers the range from 80% to 90% with 70 as a minimum passing grade). Students entering the University on or after September, 1947, will be required to make an average of C for graduation.

Curriculum Leading to the Degree of Bachelor of Science in Commerce

The degree of Bachelor of Science in Commerce will be conferred upon students who complete any one of the following curricula. An additional requirement for graduation is that the grades in at least half the work of a student shall be C or higher.

In order that the junior and senior subjects may be chosen in such a way as to constitute a coherent and comprehensive whole, rather than an unrelated and scattered series, the following programs have been devised. Each student is expected to elect at the beginning of his junior year the group which best serves his needs and to adhere to it. However, students whose interests do not coincide with any of the following groups are invited to submit an alternative program for the approval of the Administrative Board of the School.

* A written test of reading knowledge of one modern foreign language is a requirement in the School of Commerce. This reading test may be taken upon completion of the freshman language course or at the end of any succeeding quarter at the option of the student. A grade of "B" or better in the last term of freshman language or any later course is accepted as evidence of a reading knowledge of the language. A student may take additional language for credit.

The following courses are required of all juniors and seniors in the School of Commerce:

All of these which were not elected in the soph- omore year.	{	Commerce 51.....	Business Organization
		Commerce 66.....	General Psychology
		Commerce 71.....	Principles of Accounting
		*Polit. Sci. 51.....	The Federal Government

Economics 81.....	Principles of Money and Banking
Economics 170.....	Economic Statistics
Commerce 72.....	Principles of Accounting (continued)
Commerce 91-92.....	Business Law

Choose one:	{	Economics 135.....	Economic History
		Economics 191.....	Introduction to the Labor Problem
		Economics 195.....	Theories of Economic Reform
		Economics 197.....	Government and Business

The following additional courses are required of students choosing the major fields listed below:

I. Banking and Finance

Economics 141.....	Public Finance
Economics 185.....	Business Cycles
Commerce 181.....	Advanced Banking
Commerce 191.....	Corporation Finance
Commerce 192.....	Corporate Financial Policies
Commerce 195.....	Investments

†4 Non-Divisional Electives

†2 Divisional Electives

II. Accounting

Commerce 171.....	Advanced Accounting
Commerce 173.....	Cost Accounting
Commerce 175.....	Auditing
Commerce 177.....	Income Tax Procedure
Commerce 179.....	Governmental Accounting
or	
Commerce 172.....	Accounting Systems
Commerce 151.....	Principles of Industrial Management
or	
Commerce 191.....	Corporation Finance

†4 Non-Divisional Electives

†2 Divisional Electives

III. Statistics

Economics 171.....	Advanced Economic Statistics
Economics 172.....	Advanced Economic Statistics (con.)
Commerce 191.....	Corporation Finance
‡Mathematics 32-33.....	Second Year Mathematics
Mathematics 111.....	Elementary Mathematical Statistics
†2 Non-Divisional Electives	
†4 Divisional Electives	

* If Political Science 41 was not chosen in sophomore year.

† The electives must receive the approval of the Dean.

‡ If Mathematics 32-33 was elected in the sophomore year, two non-divisional elective courses approved by the Dean may be substituted.

IV. Marketing, Merchandising, and Advertising

Economics 124.....	Principles of Marketing
Commerce 161.....	Advertising
Commerce 163.....	Advanced Course in Marketing
Commerce 165.....	Retail Distribution
Commerce 167.....	Sales Management

*4 Non-Divisional Electives

*3 Divisional Electives

V. Production Management

Commerce 151.....	Principles of Industrial Management
Commerce 154.....	Production Management: Theories and Practices
Commerce 155.....	Personnel Management
Commerce 157.....	Time and Motion Study
Commerce 173.....	Cost Accounting

*4 Non-Divisional Electives

*3 Divisional Electives

VI. Personnel Management

Commerce 151.....	Principles of Industrial Management
Commerce 155.....	Personnel Management
Commerce 156.....	Personnel Problems
Economics 191.....	Introduction to the Labor Problem
Psychology 135.....	Personal and Public Economic Relations
Psychology 181.....	Laboratory Analysis in Personnel Psychology

*2 Non-Divisional Electives

*4 Divisional Electives

VII. Insurance

Economics 121.....	Risk and Risk-Bearing
Economics 124.....	Principles of Marketing
Economics 185.....	Business Cycles
or	
Economics 191.....	Introduction to the Labor Problem
Commerce 121.....	Insurance: Life
Commerce 122.....	Insurance: Fire, Marine, Bond, Title
Commerce 191.....	Corporation Finance

*4 Non-Divisional Electives

*2 Divisional Electives

* The electives must receive the approval of the Dean.

***VIII Foundation for Law**

Economics 141.....	Public Finance
Economics 151.....	Transportation
or	
Economics 153.....	Public Utilities
Economics 191.....	Introduction to the Labor Problem
Economics 197.....	Government and Business
Commerce 177.....	Income Tax Procedure
Commerce 191.....	Corporation Finance
Political Science 81.....	American State Government
Political Science 134.....	County Gov. and Administration
English 44.....	Public Speaking
or	
English 52.....	Advanced Composition
Philosophy 91.....	Philosophy of the State
or	
History 71-72.....	American History

†3 or 4 Electives in Economics or Commerce (only one can be in Economics).

IX. General

Commerce 151.....	Principles of Industrial Management
or	
Commerce 155.....	Personnel Management
Commerce 191.....	Corporation Finance
Economics 124.....	Principles of Marketing

†5 or 4 Non-Divisional Electives
 †4 or 5 Divisional Electives (not fewer than two nor more than three may be in Commerce).

X. Combined Course in Commerce and Law

The University offers a combined curriculum which leads to the degree of S.B. in Commerce at the end of four years and LL.B. at the end of six years.

The academic curriculum which must have been entirely completed before the student enters the School of Law is as follows:

FRESHMAN YEAR

Required:	{	Botany 1 or Zoology 1	Choose	one:	{	‡French 3-4
		and Geography 38				‡Spanish 3-4
		English 1-2				‡German 3-4
		Social Science 1-2				
		Mathematics 7-8				
		Hygiene 11				
Physical Education 1-2-3						

* Students in this group omit Commerce 91-92 (Business Law).

† The electives must receive the approval of the Dean.

‡ See note on language requirement at bottom of page 159.

SOPHOMORE YEAR

Required:	{ English 3-4 Economics 31-32 Economics 41 English 44 or English 45	Choose one:	{ Botany 41, 42 Chemistry 1-2-3 Geology 41-42 Mathematics 31-32 Physics 24-25 Zoology 41-42

JUNIOR YEAR

All of these which were not elected in the sophomore year:	{ Commerce 51..... Commerce 66..... Commerce 71..... *Pol. Science 51.....	Business Organization
		General Psychology
		Principles of Accounting
		Government of the U. S.

Commerce 72.....	Principles of Accounting (continued)
Economics 81.....	Principles of Money and Banking
Economics 170.....	Economic Statistics

Choose one:	Economics 135.....	Economic History
	Economics 191.....	Introduction to the Labor Problem
	Economics 195.....	Theories of Economic Reform

†2 Non-Divisional Electives

†3 Divisional Electives

Upon completion of the above program (of three years) with a C average or better the student enters the School of Law. The degree of S.B. in Commerce is conferred at the end of the fourth year (first year in law) provided the student has passed all the work of the first year of law to the satisfaction of the School of Law.

XI. Special Program in Business Management in the Furniture Industry

FIRST YEAR—ALL STUDENTS

† (State College at Raleigh)

English	9	quarter hours
Mathematics	18	quarter hours
Chemistry	12	quarter hours
World History	6	quarter hours
Engineering Drawing	9	quarter hours
Fundamental Activities and Hygiene.....	3	quarter hours
	<hr/>	
	57	quarter hours

* If Political Science 41 was not chosen in sophomore year.
 † The electives must receive the approval of the Dean.
 ‡ For details of courses at State College see State College Catalogue.

SECOND YEAR

* (State College at Raleigh)

English	9	quarter	hours
†Modern Language	9	quarter	hours
American Government	3	quarter	hours
Industrial Psychology	9	quarter	hours
Shop Work	6	quarter	hours
Wood Technology	3	quarter	hours
Lumber Seasoning	3	quarter	hours
Gluing and Plywood.....	3	quarter	hours
Forest Products	3	quarter	hours
Timber Preservation	3	quarter	hours
Sports Activities	3	quarter	hours
	<hr/>		
	54	quarter	hours

THIRD YEAR

(University at Chapel Hill)

General Economics	10	quarter	hours
Resources and Industries.....	5	quarter	hours
Money and Banking.....	5	quarter	hours
Business Organization	5	quarter	hours
Accounting Principles	12	quarter	hours
Economic Statistics	6	quarter	hours
Non-divisional elective	5	quarter	hours
	<hr/>		
	48	quarter	hours

FOURTH YEAR

(University at Chapel Hill)

Marketing	5	quarter	hours
Sales Management	5	quarter	hours
Labor Problems	5	quarter	hours
Personnel Management	5	quarter	hours
Corporation Finance	5	quarter	hours
Industrial Management	5	quarter	hours
Production Management	5	quarter	hours
Business Law	10	quarter	hours
Non-divisional elective	5	quarter	hours
	<hr/>		
	50	quarter	hours

This is part of a comprehensive training program conducted jointly by the School of Commerce and the School of Engineering at Raleigh. Twelve weeks summer employment in a furniture factory is a requirement for graduation. For details of this program see special bulletin.

* For details of courses at State College see State College catalogue.

† Passing of a reading knowledge examination is necessary to the satisfaction of the language requirement.

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, Pharmacy, Public Welfare, Public Health, and Library Science. 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.

Notes on the Method of Numbering and Counting Courses

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 towards 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 to 10 are for freshmen only, from 11 to 20 are ordinarily for freshmen and sophomores, from 21 to 40 for sophomores, from 41 to 50 for sophomores (but open to juniors or seniors), from 51 to 100 for juniors and seniors, from

* Courses in chemistry for undergraduates are grouped by decades under the headings inorganic, analytical, organic, etc.

101 to 200 for advanced undergraduates and graduates, from 201 to 400 for graduates only. Courses numbered 301 to 400 are research courses. Undergraduates may not take courses numbered above 200 except by special permission of the instructor in the course *and* the head of the department. Courses numbered from 1 to 100 carry no credit towards any advanced degree.

*DEPARTMENT OF ANATOMY

Professor: W. C. GEORGE

Associate Professor: C. D. VANCLEAVE

Assistant Professor: ARTHUR V. JENSEN

Instructor: JOHN B. RIGGSBEE

Graduate Fellow: SAMUEL O. CORNWELL

Lecturers: W. W. VAUGHAN, ALEXANDER WEBB, JR.

Technician: ECHO PATTERSON

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.

101. CENTRAL NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE (6).

Three lecture and six laboratory hours a week, third quarter. Laboratory fee for non-medical students, \$5.00. Mr. Jensen.

102. GENERAL HISTOLOGY AND ORGANOLOGY (10).

Five lecture and ten laboratory hours a week, first quarter. Laboratory fee for non-medical students, \$5.00. Messrs. George, Cornwell.

103. EMBRYOLOGY (6).

Three lecture and six laboratory hours a week, third quarter. Laboratory fee for non-medical students, \$5.00. Mr. George.

104. CYTOLOGY AND HISTOGENESIS (6). Prerequisite, Anatomy 102, Anatomy 103.

Three lecture and six laboratory hours a week, third quarter. Laboratory fee for non-medical students, \$5.00. Mr. George.

106. ADVANCED NEURO-ANATOMY (6 2/3). Prerequisite, Anatomy 101 or equivalent.

(1946-1947 and alternate years.) Laboratory fee for non-medical students, \$5.00. Mr. _____.

107ab. GROSS ANATOMY (20).

Five lecture and twelve laboratory hours a week, first and second quarters. Laboratory fee for non-medical students, \$15.00. Messrs. VanCleave, Jensen, and Riggsbee.

* Before registering for any of these courses the academic student must secure the permission of the Dean.

DEPARTMENT OF ART

Associate Professors: J. V. ALLCOTT, CLEMENS SOMMER

Resident Artist: KENNETH NESS

Visiting Lecturers: *W. M. PRINCE, JOHN REMBERT

Curator: LYNETTE WARREN

The courses in Art are designed (1) to give the student with a major in Art a rounded knowledge of both studio work and art history; and (2) to give students in other departments the opportunity to study art for its broadening value in the liberal arts program.

The student planning an A.B. with a major in Art will consult with the Department of Art about a program of art courses to be taken in the General College. Regular courses in the General College which have been postponed in order that courses in Art may be taken will be completed at a later time.

The undergraduate major in Art consists of from thirty to forty quarter hours beyond the freshman-sophomore requirements.

Laboratory fees are payable at the office of the Department of Art.

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.

The study of art is facilitated by the constantly changing exhibitions in Person Hall Art Gallery. See page 82.

Courses for Undergraduates

41. THE HISTORY AND APPRECIATION OF ARCHITECTURE (5).

Fall quarter. Messrs. Sommer, Harland (of the Department of Classics).

42. THE HISTORY AND APPRECIATION OF SCULPTURE (5).

Winter quarter. Mr. Sommer.

43. THE HISTORY AND APPRECIATION OF PAINTING (5).

Spring quarter. Mr. Sommer.

44. BEGINNING DRAWING AND COMPOSITION (3).

Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Allcott.

45. BEGINNING DRAWING AND DESIGN (3).

Nine studio hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Ness.

46. BEGINNING PAINTING (3).

Nine studio hours a week, spring quarter. Laboratory fee, \$7.50. Mr. Ness.

48. GRAPHIC DESIGN: LETTERING AND LAYOUT (3).

Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Ness.

* Absent on leave.

49. GRAPHIC DESIGN: POSTER DESIGN (3).
Nine studio hours a week. Laboratory fee, \$7.50. Mr. Ness.
50. GRAPHIC DESIGN: PLANNING OF CONTINUITY FOR STRIP FILMS, PICTURE BOOKS, AND ARTICLES (3).
Three hours a week, winter quarter. Laboratory fee, \$5.00. Mr. Allcott.
51. MEDIEVAL ARCHITECTURE (5).
52. RENAISSANCE ARCHITECTURE (5).
53. MODERN ARCHITECTURE (5).
Winter quarter. Mr. Sommer.
61. MEDIEVAL SCULPTURE IN NORTHERN EUROPE (5).
(1946-1947 and alternate years.) Fall quarter. Mr. Sommer.
62. ITALIAN SCULPTURE OF THE RENAISSANCE (5).
(1947-1948 and alternate years.) Fall quarter. Mr. Sommer.
70. AMERICAN ART (5).
Mr. Allcott.
71. ITALIAN RENAISSANCE PAINTING (5).
Winter quarter. Mr. Allcott.
74. BAROQUE PAINTING IN THE NETHERLANDS (FLANDERS AND HOLLAND) (5).
Spring quarter. Mr. Sommer.
75. CONTEMPORARY ART (5).
Spring quarter. Mr. Allcott.
80. DRAWING (3). Prerequisite, Art 44-45-46 or equivalent.
Nine studio hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Ness.
81. STILL LIFE PAINTING IN WATERCOLOR AND OIL (3). Prerequisite, Art 44-45-46 or equivalent.
Nine studio hours a week, winter quarter. Laboratory fee \$7.50. Mr. Ness.
82. COMPOSITION (3). Prerequisite, Art 44-45-46 or equivalent.
Nine studio hours a week, spring quarter. Laboratory fee, \$7.50. Mr. Ness.
83. ART ANATOMY (3). Prerequisite, Art 44-45-46 or equivalent.
Three hours a week. Laboratory fee, \$2.00.
84. SCULPTURE (3). Prerequisite, Art 44-45-46.
Nine studio hours a week. Laboratory fee, \$7.50.
85. ADVERTISING ART (3).
Spring quarter. Laboratory fee, \$10.00. Mr. Ness.

Courses for Graduates and Advanced Undergraduates

104. ADVANCED DRAWING (3). Prerequisite, Art 80.
Nine studio hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Ness.

105. PAINTING PROCESSES (3). Prerequisite, Art 81 or equivalent.
Nine studio hours a week, winter quarter. Laboratory fee, \$10.00.
 Mr. Ness.
106. ADVANCED COMPOSITION (3). Prerequisite, Art 80, 81, and 82 or equivalent.
Nine studio hours a week, spring quarter. Laboratory fee, \$10.00.
 Mr. Ness.
108. ILLUSTRATION (3). Prerequisite, Art 44-45-46 and 80.
Nine studio hours a week. Laboratory fee, \$10.00. Mr. Prince.
109. COSTUMED FIGURE (3). Prerequisite, Art 44-45-46 and 80.
Nine studio hours a week. Laboratory fee, \$7.50. Mr. Prince.
110. LIFE DRAWING (3).
Nine studio hours a week, spring quarter. Laboratory fee, \$7.50.
 Messrs. Allcott, Ness.
170. NINETEENTH CENTURY PAINTING (5).
Winter quarter. Mr. Allcott.
171. FLORENTINE PAINTING (5). Prerequisite, Art 42-43.
 Mr. Sommer.
174. FIFTEENTH CENTURY PAINTING IN NORTHERN EUROPE (5). Prerequisite, Art 41-43 or 42-43.
 (1946-1947 and alternate years.) *Spring quarter.* Mr. Sommer.
177. ORIGINS OF EUROPEAN ENGRAVING AND WOODCUT (5).
 (1946-1947 and alternate years.) *Spring quarter.* Mr. Sommer.

Courses for Graduates

253. MODERN ARCHITECTURE (5).
 Mr. Allcott.
261. LATE GOTHIC SCULPTURE (5). Prerequisite, Art 61.
Fall quarter. Mr. Sommer.
270. STUDIES IN MODERN PAINTING (5). Prerequisite, Art 170.
 Mr. Allcott.
271. VENETIAN PAINTING (5). Prerequisite, Art 71.
 Mr. Sommer.
272. NORTHERN PAINTING (5). Prerequisite, Art 61 or 71.
 (1946-1947 and alternate years.) *Winter quarter.* Mr. Sommer.
274. BAROQUE PAINTING IN ITALY AND FRANCE (5). Prerequisite, Art 71 or 74.
 Mr. Sommer.
301. SEMINAR COURSE (5). Mr. Sommer.

DEPARTMENT OF BACTERIOLOGY

Professor: D. A. MACPHERSON

Assistant Professor: F. L. RIGHTS

Instructor: W. R. STRAUGHN

Technicians: RUTH McLEAN, ANN KENT

Student Assistants: GERTRUDE ADLER, ANNA M. ANDERSON

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 six courses outside the Division of Natural Sciences are required. A suggested program of study follows:

FIRST YEAR

Chemistry 1-2-3

English 1-2

Mathematics 7-8

Social Science 1-2

*French or German 3-4

Hygiene 11

Physical Education 1-2-3

SECOND YEAR

English 3, 4

French or German 21-22

Chemistry 31-42

Botany 41

Zoology 41, 42

Bacteriology 51

THIRD YEAR

Chemistry 61, 62

Physics 24-25

Bacteriology 101, 104, †107

Elective, 2 courses

FOURTH YEAR

Bacteriology †112, †115

Elective, 6 full quarter courses, of which 3 must be outside the Division of Natural Sciences.

Courses for Undergraduates

51. **ELEMENTARY BACTERIOLOGY (6)**. Prerequisites, Chemistry 1, 2, 3, and one course in Botany or Zoology.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Messrs. MacPherson, Straughn.

Courses for Graduates and Advanced Undergraduates

101. **PATHOGENIC BACTERIOLOGY (7½)**. Prerequisites, Bacteriology 51; Chemistry 1, 2, 3, 31, 42; and two courses in Botany, Physics, or Zoology.

Three lecture and nine laboratory hours a week, fall quarter. Laboratory fee for non-medical students, \$10.00. Messrs. MacPherson, Rights, Straughn.

* Lacking adequate preparation, the student must take course 1-2.

† Other courses in Bacteriology or one course in Parasitology may be substituted with the consent of the department.

104. IMMUNOLOGY (5½). Prerequisite, Bacteriology 101.

Three lecture and five laboratory hours a week, winter quarter. Laboratory fee for non-medical students, \$10.00. Messrs. MacPherson, Rights, Straughn.

107. BACTERIOLOGY OF WATER AND FOODS (5). Prerequisite, Bacteriology 51.

Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$6.00. Mr. Straughn, Assistant.

110. PUBLIC HEALTH LABORATORY METHODS (5). Prerequisite, Bacteriology 101 and 104 or equivalent.

Two lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. MacPherson, Assistant.

112. BACTERIAL PHYSIOLOGY (6). Prerequisites, Bacteriology 51, Chemistry 31, 42, 61, 62, and preferably Biochemistry 102-103.

Three lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$6.00. Mr. Straughn, Assistant.

115, 116, 117. ADVANCED BACTERIOLOGY or IMMUNOLOGY (5½ each quarter). Prerequisites, Bacteriology 101 and 104 or equivalent.

One conference and nine laboratory hours a week, fall, winter, or spring quarter. Laboratory fee, \$10.00. Messrs. MacPherson, Rights.

Courses for Graduates

220. VIROLOGY (6). Prerequisite, Bacteriology 101 and 104.

A course designed to acquaint students with viruses and rickettsiae of medical importance and the laboratory procedures used in handling these agents.

Two lectures, one conference, and six laboratory hours a week, spring quarter. Laboratory fee, \$12.00. Mr. Rights.

301, 302, 303. RESEARCH IN BACTERIOLOGY, IMMUNOLOGY, or VIROLOGY (5 or more each quarter). Prerequisite, permission of the department.

Hours and credits to be arranged; throughout the year. Laboratory fee, \$10.00 a quarter. Messrs. MacPherson, Rights.

BIBLICAL HISTORY AND LITERATURE

Professors: J. P. HARLAND, A. C. HOWELL, P. H. EPPS, *Chairman.*

Associate Professor: HELMUT KUHN

Courses for Undergraduates

57. THE DEVELOPMENT OF CHRISTIAN PHILOSOPHY (Philosophy 57) (5).

Spring quarter. Mr. Kuhn.

85. ARCHAEOLOGY AND THE BIBLE (Classics 85) (5).

Fall quarter. Mr. Harland.

86. BIBLICAL HISTORY FROM 760 B.C. TO 400 A.D. (Classics 86) (5).

Winter quarter. Mr. Epps.

87b. LITERARY ASPECTS OF THE BIBLE: NEW TESTAMENT (English 87b) (5).

(1946-1947 and alternate years.) Fall quarter. Mr. Howell.

88. GREEK NEW TESTAMENT (Classics 88) (5). Prerequisite, Greek 4 or equivalent.
One quarter. Mr. Epps.

96. PHILOSOPHY OF RELIGION (Philosophy 96) (5).
Spring quarter. Mr. Kuhn.

Courses for Graduates and Advanced Undergraduates

158. GREEK NEW TESTAMENT (Classics 158) (5). Prerequisite, Greek 21-22 or equivalent.
One quarter. Mr. Epps.

DEPARTMENT OF BIOLOGICAL CHEMISTRY AND NUTRITION

Professor: J. C. ANDREWS

Associate Professor: G. C. KYKER

Assistant: MARGARET DARROUGH

Research Assistant: ELIZABETH B. CURRY

Fels Research Assistants: _____.

Courses for Undergraduates

41. ELEMENTARY FOOD AND NUTRITION (3).

An elementary course dealing with the principles of food selection and food values. Elementary chemistry is a desirable but not an indispensable prerequisite. The practical and economic value of various classes of foods from the standpoint of their composition is emphasized.

Three hours a week, winter quarter. Mr. Andrews.

Courses for Graduates and Advanced Undergraduates

101-102. GENERAL BIOLOGICAL CHEMISTRY (12). Prerequisite, Chemistry 42 and 61, 62 or equivalent.

A class and laboratory course covering the fundamental principles and methods of biological chemistry as applied to the mechanism of the animal body. To meet the needs of the medical students, of whom it is required, 101 contains less and 102 more than the equivalent of a full course. The above rating represents the sum of both quarters.

101: *Two lecture and four laboratory hours a week, fall quarter.*

102: *Four lecture and eight laboratory hours a week, winter quarter.*
Laboratory fee for non-medical students, \$10.00 for each quarter.
Messrs. Andrews, Kyker; Assistant.

103. FOOD CHEMISTRY (6). Prerequisite, Biological Chemistry 101-102.

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 nutritional experimentation on laboratory animals and chemical analysis.

Three lecture and six laboratory hours a week, spring quarter.
Laboratory fee, \$10.00. Messrs. Andrews, Kyker.

Courses for Graduates

201, 202, 203. **ADVANCED BIOLOGICAL CHEMISTRY** (6 each). Prerequisite, 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, Kyker.

211, 212, 213. **SEMINAR** (1 each). Prerequisite, Biological Chemistry 101-102 or equivalent and a reading knowledge of German.

One hour a week, fall, winter, and spring quarters. Messrs. Andrews, Kyker.

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, Kyker.

DEPARTMENT OF BOTANY

Professors: J. N. COUCH, *W. C. COKER, H. R. TOTTEN

Associate Professors: J. E. ADAMS, E. H. NEWCOMER

Instructors: ALBERT E. RADFORD, †A. W. ZIEGLER

Research Assistant: ALMA HOLLAND BEERS

Teaching Fellow: ‡PAUL W. TITMAN

Part-time Curators: REBECCA BECKHAM, ELIZABETH IVEY

Graduate Assistants: ALICE RYLAND, PAULINE LONGEST, MAEBURN HUNEYCUTT, CHARLES O'KELLEY

Undergraduate Assistants: CLARA AULD, §CLYDE BELL, WILLIAM KOCH

For the A.B. with major in Botany, six courses of the level of 41 or higher are required. One course in Bacteriology and one in Zoology may, with the consent of the Department, be considered as part of the major. There are also required eight courses in allied sciences, which shall include two 5- and 6-hour quarter courses in each of the following sciences (it is assumed that at least two such courses would have been taken in the General College): Zoology, Chemistry, Physics, Geology. Six courses in Departments outside the Division of Natural Sciences are required.

Those students who plan to teach in public high schools should read the instructions under the Department of Education section of the catalogue.

* Kenan Research Professor *Emeritus*.

† Teaching fellow until January 1, 1947.

‡ Graduate assistant until January 1, 1947.

§ Graduate assistant, spring quarter.

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, Newcomer; Assistants.

41. GENERAL BOTANY (6). To be taken instead of Botany 1 by students intending to major in the natural sciences.

An introduction to the structure, physiology, and classification of plants.

Four lecture and four laboratory and field trip hours a week, fall, winter, and spring quarters, with a special section in the spring quarter for Pharmacy students only. Laboratory fee, \$4.00. Messrs. Couch, Totten; Assistants.

42. SEED PLANTS (6). Prerequisite, Botany 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.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Totten, Assistant.

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 Botany Department.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$6.00. Messrs. Totten, Adams; Assistants.

Courses for Graduates and Advanced Undergraduates

102. FUNGI (5). Prerequisite, Botany 41, 42 or equivalent.

A survey of the fungal groups including the true Fungi, Myxomycetes, and Lichens.

Two lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$4.00. Mr. Couch.

103. ALGAE (5). Prerequisite, Botany 41, 42 or equivalent.

A survey of the Algae including both fresh water and marine groups.

Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Couch.

104. BRYOPHYTES (5). Prerequisite, Botany 41, 42, or equivalent.

A survey of Liverworts and Mosses.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$4.00. Mr. Couch.

111, 112, 113. FUNGI: PHYCOMYCETES, ASCOMYCETES, BASIDIOMYCETES (5 each). Prerequisite, Botany 41, 42 or equivalent.

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, fall, winter, and spring quarters respectively. (One or two of these courses offered each year, 112 being given in the winter quarter, 1947.) Laboratory fee, \$4.00 each quarter. Mr. Couch.

141. FERNS (5). Prerequisite, Botany 41, 42 or equivalent.

A study of the structure, growth, and classification of the ferns.

Two lecture or report and six laboratory or field work 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.

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.

Two lecture and six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Adams.

151, 153. ADVANCED TAXONOMY OF SEED PLANTS (5 each quarter). Prerequisite, Botany 41, 42 or equivalent.

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 or spring quarter. Laboratory fee, \$4.00. Messrs. Adams, Totten.

155. DENDROLOGY (6). Prerequisite, Botany 41, 42 or equivalent.

Advanced work in the collection and identification of woody plants by morphological and anatomical methods.

Two lecture or report and eight field or laboratory hours a week, winter quarter or summer session. (Not offered winter quarter 1946-47.) Laboratory fee, \$4.00. Messrs. Totten, Newcomer.

156. PLANT GEOGRAPHY (3). Prerequisite, Botany 41, 42 or equivalent.

Discussion of the principles and problems of the geographic distribution of plants.

Three lecture or report hours a week, spring quarter. Mr. Adams.

157. PLANT ANATOMY (5). Prerequisite, Botany 41, 42 or equivalent.

Introduction to the developmental 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.

162. STUDIES IN THE HISTORY OF BOTANY (3). Prerequisite, Botany 41, 42 or equivalent.

* Of special interest to graduate students in the School of Pharmacy, though open to others also.

Lectures, readings and reports on the persons and the origins of the theories and laws which have been important in the history and development of botanical science.

Three lecture or report hours a week, winter quarter. (This course may be repeated by students in subsequent years for additional credit.) Mr. Newcomer.

166. CYTOLOGY (5). Prerequisite, Botany 41, 42 or equivalent. The study of the structure and function of the cell.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$4.00. Mr. Newcomer.

176. CYTOGENETICS (5). Prerequisite, Botany 41, 42 or equivalent.

The use of cytological techniques and observation in the interpretation of genetic data from the standpoint of phylogeny, ecology, and plant breeding.

Three lecture or report and four laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Mr. Newcomer.

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.

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. Messrs. Totten, Adams.

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, Newcomer.

DEPARTMENT OF CHEMISTRY

Professors: RALPH WALTON BOST, *FRANK KENNETH CAMERON,
JAMES TALMAGE DOBBINS, HORACE DOWNS CROCKFORD, EDWIN
CARLYLE MARKHAM, †OSCAR KNEFLER RICE

Associate Professors: FLOYD HARRIS EDMISTER, ARTHUR ROE,
SAMUEL BRADLEY KNIGHT, RICHARD HAVEN WILEY

Assistant Professors: ROBERT LAMBERT MCKEE, SHEPPARD YOUNG
TYREE, JR., ‡FERD E. WILLIAMS

Teaching Fellows: LEONARD LEE BENNETT, FREDERICK BLOUNT
JOYNER, JEAN PAUL WILLIAMS

Assistants: HORACE ADAMS, JAMES BRUCE BALLENTINE, OLIN
HENRY BORUM, GERHARD MAX BRAUER, GEORGE JENNINGS
BRYAN, HENRY GRADY CALLISON, FRANCIS WORTHINGTON
CHAPMAN, PAUL HUBERT CHEEK, ANN ELIZABETH CLARK,
JAMES HOMER CRAWFORD, ARTHUR JAMES FOSTER, ROBERT
DANIEL GANO, PEGGIE BIRD GARRISON, WILLIAM BARNETT
GUERRANT, JOHN LOVELL HALL, ROBERT CHARLES HARRINGTON,
PATRICK HENRY HOBSON, ROBERT MURRAY HUGHES, JAMES
STEVEN JOHNSON, RUTH LLOYD, CHARLES ALEXANDER McMUR-
RAY, ROSS LOMBARD PARKS, STANLEY HANCOCK PATTEN,
PAUL MILLER PITTS, NEWTON ROSSER SMITH, PAUL KISER
STARNES, HELEN ELIZABETH STATON, LOUIS FOSTER THEILING,
GEORGE ROY TRAMMELL, FRANK BRYAN TUTWILER, WALTER
EDWIN WADDEY, DAVID DEVERE WALKER, FARRIS HOLMES WIL-
SON, WILLIS CARL WOOTEN

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 page 205.

* Professor *Emeritus*.

† On leave of absence academic year 1946-47.

‡ Acting Assistant Professor.

BACHELOR OF SCIENCE IN CHEMISTRY*FRESHMAN YEAR**

Chemistry 1-2-31	Math 7-8
or	German 1
†Chemistry 1-2-3, 31	Hygiene 11
English 1-2-3	Physical Education

SOPHOMORE YEAR

†Chemistry 51, 42, 41	English 4, or English 5 or
Math 31-32-33	English 6, or Fine Arts option
Physics 24-25	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 chemistry
Physics elective, one of the following courses: Physics, 52, 53, 54, 55, 56	

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, Tyree; 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.

* 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 li.)

‡ 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 47, 48, 71, 72, 134, 135, 136, 167, 168, 170.

Also, select two from the following: Political Science 51, 52, 101, 142; Sociology 51, 52, 155.

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.

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)**. Prerequisite, 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.

61, 62, 63. **ORGANIC CHEMISTRY (6 each)**. Prerequisite, Chemistry 31.

Three lecture and six laboratory hours a week. Chemistry 61 is offered in the fall and winter quarters; Chemistry 62 in the winter and spring quarters; and Chemistry 63 in the spring quarter. Laboratory fee, \$10.00 a quarter. Messrs. Bost, Roe, McKee.

83. **PHYSICAL CHEMISTRY FOR PREMEDICAL STUDENTS (6)**. Prerequisite, Chemistry 31, 42, 62, Math. 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, Williams.

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.

143. **THEORETICAL ANALYTICAL CHEMISTRY (6)**. Prerequisite, Chemistry 31, 41, 42.

Six hours a week, winter quarter. Mr. Dobbins.

145. **INSTRUMENTAL ANALYSIS. ELECTRICAL METHODS (3)**. Prerequisite, Chemistry 41, 42.

One lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Markham.

146. **INSTRUMENTAL ANALYSIS. OPTICAL METHODS (3)**. Prerequisite, Chemistry 41, 42.

Six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Mr. Markham.

147. **QUANTITATIVE ORGANIC MICROANALYSIS (3)**. Prerequisite, Chemistry 41, 42, 63.

Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Markham.

148. **INORGANIC MICROANALYSIS (3)**. Prerequisite, Chemistry 41, 42.

Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Markham.

151, 152, 153. **ADVANCED INORGANIC CHEMISTRY (3 each)**. Prerequisite, Chemistry 31, 42.

Three hours a week, fall, winter, and spring quarters. Mr. Edmister.

163. QUALITATIVE ORGANIC ANALYSIS (6). Prerequisite, Chemistry 61, 62, 63.

Three lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$10.00. Mr. Bost.

164. QUANTITATIVE ANALYSIS OF FUNCTIONAL GROUPS (3). Prerequisite, Chemistry 163.

Six laboratory hours a week, winter quarter. Laboratory fee, \$10.00. Messrs. Bost, Roe, McKee.

165. ORGANIC COMBUSTIONS (3). Prerequisite, Chemistry 163.

Six laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Messrs. Bost, Roe.

166a, 167a, 168a, ADVANCED ORGANIC CHEMISTRY I (3 each).

Prerequisite, or corequisite, Chemistry 163.

Three hours a week, fall, winter, and spring quarters. Messrs. Bost, Roe.

166b, 167b, 168b. ADVANCED ORGANIC CHEMISTRY II (3

each). Prerequisite, or corequisite, Chemistry 163.

Three hours a week, fall, winter, and spring quarters. Messrs. Bost, 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. Messrs. Bost, Roe.

181, 182, 183. PHYSICAL CHEMISTRY (6 each). Prerequisite,

Chemistry 31, 41, 42; prerequisite, or corequisite, 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.

184, 185, 186. CHEMICAL THERMODYNAMICS (3 each). Prerequisite, Chemistry 181, 182, 183.

(1946-1947 and alternate years.) Three hours a week, fall, winter, and spring quarters. Messrs. Crockford, Rice.

191, 192, 193. INDUSTRIAL CHEMISTRY (3 each). Prerequisite,

Chemistry 61, 62, 63.

Three hours a week, fall, winter, and spring quarters. Mr. Wiley.

194. CHEMISTRY OF SYNTHETIC RESINS (3). Prerequisite,

Chemistry 163.

Three hours a week, winter or spring quarter. Mr. Wiley.

195. CHEMICAL LITERATURE (3). Prerequisite, Chemistry 63.

(1946-1947 and alternate years.) Three hours a week, fall quarter. Mr. Wiley.

196. EXPERIMENTAL STUDIES IN POLYMER CHEMISTRY (3).

Prerequisite, Chemistry 163.

Six laboratory hours a week, winter or spring quarter. Laboratory fee, \$10.00. Mr. Wiley.

Courses for Graduates

231. DETECTION OF POISONS (6). Prerequisite, Chemistry 31, 42, 61, 62, 63.

(1947-1948 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.

(1946-1947 and alternate years.) *Three hours a week, fall, winter, and spring quarters. Mr. Dobbins.*

244, 245, 246. SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (3 each). Prerequisite, Chemistry 143, 183.

(1947-1948 and alternate years.) *Three hours a week, fall, winter, and spring quarters. Mr. Markham.*

251. SEMINAR IN INORGANIC CHEMISTRY (3). Prerequisite, Chemistry 151.

Three hours a week, fall quarter. Mr. Edmister.

258-259. HISTORY OF CHEMISTRY (3 each). Prerequisite, Chemistry 31, 61, 62.

Three hours a week, winter and spring quarters. Mr. Edmister.

261, 262, 263. SYNTHETIC ORGANIC COMPOUNDS (3 each). Prerequisite, Chemistry 166a, 167a, 168a, or Chemistry 166b, 167b, 168b.

(1946-1947 and alternate years.) *Three hours, or equivalent, a week, fall, winter, and spring quarters. Messrs. Bost, Roe.*

264, 265, 266. SEMINAR IN ORGANIC CHEMISTRY (3 each). Prerequisite, Chemistry 166a, 167a, 168a, or Chemistry 166b, 167b, 168b.

(1947-1948 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. Bost, Roe, McKee.

281. ATOMIC AND MOLECULAR CHEMISTRY (3). Prerequisite, Chemistry 181, 182, 183.

Three hours a week, fall quarter. Messrs. Rice, Williams.

282, 283. CHEMICAL BINDING AND VALENCE (3 each). Prerequisite, Chemistry 281.

(1946-1947 and alternate years.) *Three hours a week, winter and spring quarters. Messrs. Rice, Williams.*

284, 285. STATISTICAL PROBLEMS IN CHEMISTRY (3 each). Prerequisite, Chemistry 281.

(1947-1948 and alternate years.) *Three hours a week, winter and spring quarters. Messrs. Rice, Williams.*

286. SEMINAR IN PHYSICAL CHEMISTRY (3). Prerequisite, Chemistry 181, 182, 183.

Three hours a week, any quarter. Messrs. Crockford, Rice, Williams.

291, 292, 293. **ADVANCED TOPICS IN INDUSTRIAL CHEMISTRY** (3 each). Prerequisite, Chemistry 163. (1947-1948 and alternate years.) *Three hours a week, fall, winter, and spring quarters.* Mr. Wiley.

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. Bost, Roe, McKee.

381. **PHYSICAL CHEMISTRY** (6).
Messrs. Crockford, Rice, Williams.

391. **INDUSTRIAL CHEMISTRY** (6).
Mr. Wiley.

DEPARTMENT OF CITY AND REGIONAL PLANNING

Professors: JOHN ALBERT PARKER, DUDLEY JOHNSTONE COWDEN, JAMES WILLIAM FESLER, THOMAS FELIX HICKERSON, HOWARD WASHINGTON ODUM, RUPERT BAYLESS VANCE, PAUL WOODFORD WAGER

Associate Professors: JAMES MURRAY WEBB, NICHOLAS JAY DEMERATH, PAUL DUNLAP HANEY, HARRIETT L. HERRING, JOHN ELY IVEY, JR.

Assistant Professor: EMIL THEODORE CHANLETT

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, 167, 170 or 191, 209, 220, 221, 222, 223 or 224, 224 or 225, 230, 240, 310, 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 185. Students who have not completed introductory courses in economics, political science, or sociology are required to make up these deficiencies.

The regular admission requirements of the Graduate School apply to those who wish to enter the Department. Undergraduates who expect at a later time to take up the professional study of regional planning are advised to specialize in one of the following disciplines during the period of undergraduate training: architecture, economics, engineering, geography, 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.

Courses for Graduates and Advanced Undergraduates

127. TRANSPORTATION SYSTEMS (Mathematics 127) (3).

Highway systems and highway design and construction, traffic surveys and traffic control, airports, railroads, and rapid transit.

Three hours a week, winter quarter. Mr. Hickerson.

161. THE PRINCIPLES OF SANITATION (Public Health 161)

(5).

The course is designed to teach the theory of sanitation and how the environment is shaped to prevent disease and promote man's well-being. A series of practical study problems is worked out by the student to achieve a progressively broadening comprehension of engineering techniques and of the administrative policy of the environmental control of disease. Field trips to water treatment, sewage treatment, and milk pasteurization plants are made.

Three lecture and four laboratory hours a week, fall quarter. Mr. Chanlett.

167. HOUSING AND COMMUNITY DEVELOPMENT (Sociology 167) (5). Prerequisite, Sociology 51 and Economics 31-32 or Economics 61.

An analysis of housing as a factor in social problems, health, general community well-being, and urban and rural community planning and redevelopment. Consideration of related housing problems of consumer needs, production, and distribution. The contributions of specialists in sociology, land economics, public administration, and architecture are studied in relation to these matters. Field trips are arranged from time to time.

Spring quarter. Mr. Demerath.

170. ECONOMIC STATISTICS (Economics 170) (6). Prerequisite, Mathematics 1-2-3, Economics 31-32 or equivalent.

This course provides training in the important processes 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 four laboratory hours a week, every quarter. Laboratory fee, \$3.00. Mr. Cowden.

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 four laboratory hours a week, fall quarter. Mr.

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.

Fall quarter. Messrs. Fesler, Wager, and representatives of several departments.

220. PRINCIPLES OF PLANNING DESIGN (5).

An introduction to the principles of architectural planning and of site development and construction. The work includes the design of structures and the development of related land areas. Instruction is given in grading, drainage, and road layout.

Fall or winter quarter. Messrs. Haney and Webb.

221. COMMUNITY PLANNING RESEARCH (5).

Students collaborate on the preparation of a research study and plan for a new community. The process of study includes analysis of probable social, economic, and physical requirements, selection of the site, and development of the physical plan.

Winter quarter. Mr. Webb, Miss Herring, and representatives of several departments.

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. Messrs. Webb, Parker, Demerath, and representatives of several departments.

223. ADVANCED PLANNING DESIGN (5). Prerequisite, Planning 220.

Studies of specific problems in urban centers. Areas are selected and studied with a view to determining the social, economic, and physical implications of a redevelopment program in relation to recent redevelopment legislation.

Fall or winter quarter. Messrs. Webb, Parker, and representatives of several departments.

224. STATE PLANNING (5).

A study which involves comprehensive considerations with respect to state planning, as well as state-wide planning programs in specific fields of activity. In so far as possible, problems are studied in collaboration with a state planning agency.

Winter quarter. Mr. Ivey.

225. REGIONAL PLANNING (5).

Research on and analysis of regional-national planning problems which may involve economic, social, physical, or governmental aspects of planning or combinations of these functions.

Fall quarter. Messrs. Odum, Vance, Ivey, and representatives of several departments.

230. PLANNING LEGISLATION AND ADMINISTRATION (3).

Enabling legislation for planning: urban, rural, and county zoning; subdivision and other land use controls; urban redevelopment law; housing legislation; and limited access highway legislation.

Three hours a week, winter quarter. Mr. _____.

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.

Any quarter.

310. PLANNING RESEARCH SEMINAR (5).

Field research and study on selected planning problems under special guidance of a member of the staff.

Any quarter. Messrs. Parker, Webb, and representatives of several departments.

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.

Members of the Department of City and Regional Planning.

Approved courses from which the four departmental electives may be selected:

Department of Economics:

- 111. Resources and Technics in World Economy
- 135. Economic History
- 141. Public Finance
- 143. Problems in State and Local Finance
- 153. Public Utilities
- 211. Advanced Commodity Economics
- 341. Research Course in Public Finance
- 399. Seminar

Department of Political Science

- 101. Public Administration
- 105. Public Personnel Administration
- 132. American Municipal Government
- 191. Public Finance
- 193. Problems in State and Local Finance
- 210. Public Administration of Resources
- 331. Problems in Public Administration
- 341. Seminar Course

Department of Sociology

- 110. Rural Land Planning and Land Economics
- 113. Techniques for Social Action
- 168. The Urban Community
- 174. Community Leadership
- 180. Regional Problems and Planning
- 186. Population
- 218. Human Ecology
- 327, 328, 329. Graduate Research Seminars

***DEPARTMENT OF CLASSICS**

Professors: B. L. ULLMAN, J. P. HARLAND, P. H. EPPS

Associate Professor: WALTER ALLEN, JR.

Assistant Professor: A. I. SUSKIN

Part-time Instructors: FRANCIS R. BLISS, CORINNE W. GREEN,

HELEN B. LANNEAU

Teaching Fellow: CHARLES HENDERSON, JR.

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.

Courses for Undergraduates

†1-2. ELEMENTARY GREEK (5 each).

Fall and winter quarters. Mr. Epps.

‡3-4. INTERMEDIATE GREEK (5 each).

Spring and fall quarters. Messrs. Epps, Bliss.

‡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 21 or equivalent.

One quarter. Mr. Epps.

82. PLATO (5). Prerequisite, Greek 21 or equivalent.

One quarter. Mr. Epps.

88. GREEK NEW TESTAMENT (5). Prerequisite, Greek 4 or equivalent.

One quarter. Mr. Epps.

Courses for Graduates and Advanced Undergraduates

112. HOMER, ODYSSEY (5). Prerequisite, Greek 21 or equivalent.

One quarter. Mr. Epps.

153. GREEK TRAGEDY (in Greek) (5). Prerequisite, Greek 21 or equivalent.

One quarter. Mr. Epps.

154. GREEK COMEDY (in Greek) (5). Prerequisite, Greek 21 or equivalent.

One quarter. Mr. Epps.

158. GREEK NEW TESTAMENT (5). Prerequisite, Greek 4.

One quarter. Mr. Epps.

* Those students who plan to teach Latin in high school should read the statement on page 205.
† Two quarters of Greek or Latin or Mathematics must be taken by each candidate for the degree of A.B.

‡ Any of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

171. GREEK HISTORIANS (5). Prerequisite, Greek 21 or equivalent.

Spring quarter, Mr. Epps.

181. GREEK ORATORS (5). Prerequisite, Greek 21 or equivalent.

One quarter. Mr. Epps.

Courses for Graduates

213. HELLENIC LITERATURE AND ITS HISTORICAL SETTING (5).

One quarter, on application. Mr. Harland.

296. GREEK EPIGRAPHY (5). Prerequisite, a reading knowledge of Greek.

One quarter, on application. Mr. Harland.

301-302-303. GREEK SEMINAR (5 each).

Fall, winter, and spring quarters, on application. Messrs. Harland and 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.

Courses for Undergraduates

†1-2. ELEMENTARY LATIN (5 each).

1: *Fall, winter, and spring quarters*. 2: *Winter and spring quarters*. Mr. Henderson; Misses Green, Lanneau.

‡3-4. INTERMEDIATE LATIN (5 each).

Freshman and sophomore elective. 3: *Fall, winter, and spring quarters*. 4: *Fall, winter, and spring quarters*. Messrs. Suskin, Henderson; Misses Green, Lanneau.

‡21-22. ADVANCED LATIN (5 each). Prerequisite, three or four units of high school Latin, or Latin 3-4.

Freshman and sophomore elective. 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. Suskin.

53. LATIN LYRIC POETRY (5). Prerequisite, Latin 22.
Spring quarter. Mr. Suskin.

* See note on the major and teacher training under Department of Classics.

† Two quarters of Greek or Latin or Mathematics must be taken by each candidate for the degree of A.B.

‡ Any of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

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 Department of Education.

Courses for Graduates and Advanced Undergraduates

101. ROMAN HISTORICAL LITERATURE, TACITUS (5). Prerequisite, Latin 22.

Winter quarter. Mr. Allen.

102. ROMAN DRAMATIC LITERATURE (5). Prerequisite, Latin 22.

One 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.

One quarter. Mr. Allen.

105. THE SATIRES OF JUVENAL (5). Prerequisite, Latin 22.

Winter quarter. Mr. Ullman.

106. LUCRETIUS (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

107. LATIN COMPOSITION (5). Prerequisite, Latin 22.

Fall quarter. Mr. Allen.

108. MARTIAL (5). Prerequisite, Latin 22.

Fall quarter. Mr. Ullman.

109. CICERO: PHILOSOPHICAL WORKS (5). Prerequisite, Latin 22.

One quarter. Mr. Ullman.

110. MEDIEVAL LATIN (5). Prerequisite, Latin 22.

One 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.

131. LATIN WRITERS OF THE ITALIAN RENAISSANCE (5). Prerequisite, Latin 22.

Reading of selections beginning with Dante and Petrarch, with some consideration of the origin of the Renaissance.

One quarter. Mr. Ullman.

Courses for Graduates

202. LATIN EPIGRAPHY (5).
One quarter. Mr. _____.
203. LATIN PALEOGRAPHY (5).
One quarter. Mr. Ullman.
- 301-302-303. LATIN SEMINAR (5 each).
Fall, winter, and spring quarters. Mr. Ullman, Staff.
301. THESIS COURSE (5).
Any quarter. Mr. Ullman.

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 31 and 32 may be substituted for English 3 and 4 by students taking a modern foreign language. See also under Comparative Literature.

Courses for Undergraduates

31. GREEK LITERATURE (5).
One quarter. Mr. _____
32. LATIN LITERATURE (5).
One quarter. Mr. _____
61. GREEK LITERATURE (5).
Winter quarter. Mr. Allen.
62. LATIN LITERATURE (5).
Fall quarter. Mr. Suskin.
75. GREEK CIVILIZATION (5).
Winter quarter. Mr. Harland.
76. ROMAN CIVILIZATION (5).
One quarter. Mr. Allen.
77. HELLENIC MYTHOLOGY (5).
One quarter. Mr. Harland.
85. ARCHAEOLOGY AND THE BIBLE (5).
Fall quarter. Mr. Harland.
86. BIBLICAL HISTORY FROM 760 B.C. TO 400 A.D. (5).
Winter quarter. Mr. Epps.
91. ARCHAEOLOGY OF THE NEAR EAST (5).
Fall quarter. Mr. Harland.
92. GREEK ARCHAEOLOGY (5).
Winter quarter. Mr. Harland.

93. GREEK SCULPTURE (5).

Spring quarter. Mr. Harland.

95. ANCIENT ARCHITECTURE (5).

Spring quarter. Mr. Harland.

97. GREEK AND ROMAN ART (5).

Spring quarter. Mr. Harland.

Courses for Graduates and Advanced Undergraduates

103. GREEK AND ROMAN EPIC (5).

Spring quarter. Mr. Allen.

107. GREEK DRAMATIC LITERATURE (5).

Fall quarter. Mr. Allen.

114. GREEK AND ROMAN COMEDY (5).

One quarter. Messrs. Epps, _____.

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.

Courses for Graduates

211. ARCHAEOLOGY: TOPOGRAPHY OF ATHENS, OLYMPIA, AND DELPHI (5). Ability to read Greek desirable.

One quarter, on application. Mr. Harland.

291. ARCHAEOLOGY OF THE ANCIENT NEAR EAST (5). Prerequisite, Archaeology 91, or courses in Ancient History of the Near East.

One quarter, on application. Mr. Harland.

292. HELLENIC ARCHITECTURE (5). Prerequisite, Archaeology 91 or 92 or 93, or Ancient History.

One quarter, on application. Mr. Harland.

293. HELLENIC SCULPTURE (5). Prerequisite, Archaeology 92 or 93, or Greek 75, or Ancient History.

One quarter, on application. Mr. Harland.

298. ROMAN ARCHAEOLOGY (5). Prerequisite, Archaeology 91, 92, 93.

One quarter, on request. Mr. Harland.

CURRICULUM IN COMPARATIVE LINGUISTICS

DEAN W. W. PIERSON, *Chairman*Professors: N. E. ELIASON, U. T. HOLMES, R. S. BOGGS, G. S. LANE (*Secretary*)

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.

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 for candidates for higher degrees in comparative linguistics.

Candidates offering this field as either major or minor subject for their degrees are required to show an adequate understanding of the history and development of the English language, to be secured by formal instruction or to be tested by the submission of acceptable evidence of such mastery. Furthermore, from both a cultural and a 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 for linguistics, fundamental works in Sanskrit, Slavic, and the more general aspects of Indo-European comparative grammar have been acquired.

General

101. INTRODUCTION TO THE STUDY OF LANGUAGE (5). Prerequisite, one classical language and one modern language.

Spring quarter. Mr. Lane.

103. THE INDO-EUROPEANS (5).

One quarter, on demand. 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).

Through the year. Mr. Lane.

201, 202, 203. ADVANCED SANSKRIT (5 each).

Through the year, on demand. 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 READINGS (5).

Fall quarter. Mr. Eliason.

170. MODERN ENGLISH (5).

Summer quarter. Mr. Eliason.

201. BEOWULF (5).

Winter quarter. Mr. Eliason.

202. MIDDLE ENGLISH (5).

Spring quarter. Mr. Coffman (of the Department of English).

204. HISTORY OF THE ENGLISH LANGUAGE (5). Prerequisite, English 101, 102.

Spring quarter. Mr. Eliason.

Germanic Linguistics

161. HISTORY OF THE GERMAN LANGUAGE (German 161) (5).

One 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. 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. Mr. Linker (of the Department of Romance Languages).

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. Boggs.

DEPARTMENT OF COMPARATIVE LITERATURE

Professors: H. R. HUSE, *Acting Chairman*, HARDIN CRAIG, U. T. HOLMES, JR., A. C. HOWELL, R. P. BOND, S. A. STOUDEMIRE, W. L. WILEY, P. H. EPPS, R. S. BOGGS

Associate Professors: W. P. FRIEDERICH, WALTER ALLEN, R. W. LINKER

Assistant Professors: A. I. SUSKIN, KAI JURGENSEN

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. The following are recommended particularly: Greek 71, 80, 82, 181; Latin 51, 53, 101, 104, 106; English 50, 70, 84, 99, 125; French 71, 72, 109, 115, 161, 181, 191; Spanish 71, 72, 110, 115, 116, 131, 132; German 109, 111, 115, 131, 141, 151; Italian 131, 132, 161.

LITERATURE IN ENGLISH TRANSLATION

Courses for Undergraduates

61. GREEK LITERATURE (5).
Winter quarter. Mr. Allen.

62. LATIN LITERATURE (5).

87. LITERARY ASPECTS OF THE BIBLE (Biblical History and Literature 87) (5).

65. ORIENTAL LITERATURE (5).
Spring quarter. Mr. Holmes.

Courses for Graduates and Advanced Undergraduates
Fall quarter. Mr. Suskin.

117. CERVANTES (5).
Spring quarter. Mr. Stoudemire.

135. FRENCH CLASSICISM (5).
Spring quarter. Mr. Wiley.

137. SURVEY OF GERMAN LITERATURE (5).
Fall quarter. Mr. Friederich.

155. GOETHE (5).
Spring quarter. Mr. Friederich.

156. DANTE (5).
Winter quarter. Mr. Huse.

COMPARATIVE COURSES**For Graduates and Advanced Undergraduates**

103. GREEK AND ROMAN EPIC (5).

Spring quarter. Mr. Allen.

107. GREEK DRAMATIC LITERATURE (5).

Fall quarter. Mr. Allen.

162. MODERN CONTINENTAL DRAMA (5).

Winter quarter. Mr. Jurgensen.

163. LITERARY CRITICISM (5).

Winter quarter. Mr. Bond.

170. THE MIDDLE AGES (5).

Spring quarter. Mr. Linker.

173. MEDIEVAL ROMANCE (5).

Spring quarter. Mr. Craig.

175. RENAISSANCE AND BAROQUE (5).

Winter quarter. Mr. Friederich.

177. CLASSICISM AND PRE-ROMANTICISM (5).

Spring quarter. Mr. Friederich.

185. INTRODUCTION TO FOLKLORE (5).

Fall quarter. Mr. Boggs.

Courses for Graduates

201. PROBLEMS AND METHODS IN COMPARATIVE LITERATURE (5).

Fall quarter. Mr. Friederich.

240. READING COURSE (5).

One lecture hour a week, winter or spring quarter.

395. RESEARCH (with thesis 5).

Messrs. Huse and Friederich.

DEPARTMENT OF DRAMATIC ART

Professors: SAMUEL SELDEN, *PAUL GREEN, R. B. SHARPE, EARL WYNN

Associate Professors: H. E. DAVIS, J. W. PARKER

Assistant Professors: FOSTER FITZ-SIMONS, KAI JURGENSEN, R. L. GAULT, JANE GRILLS

Instructors: IRENE SMART, †RHODA HUNTER

Visiting Lecturers: LENNOX ROBINSON, HANS ROTHE

Special Lecturer in Radio: ROBERT SCHENKKAN

Assistants: LYNN LEONARD, ELIZABETH J. McIVER, WAYNE BOWMAN, MARY BROOKS POPKINS, EDGAR GARRETT

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 the literature of the drama 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 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 production unit of the Department of Dramatic Art, The Carolina Playmakers Theatre building, the Forest Theatre, and the scene shop furnish ample opportunity for the student to test theory with practice, in both experimental and public performances.

Requirements for a Major: A student choosing Dramatic Art as his major field should take a minimum of eighteen full courses distributed as follows:

Three courses in theatre arts from 55, 61, 63, 64, 65, 66, 67, 70, 71, 74, 75, 85, 155, 156, 157, and 193.

One course in Voice Training (40).

One course in Shakespeare in the Theatre (150).

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).

* On leave of absence.

†Appointed January, 1947.

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 course in Staging Methods (202) should see the prerequisites for that course.

Courses for Undergraduates

40 (55). VOICE TRAINING (5). Open to Dramatic Art majors only. See English 40.

Three lecture and four laboratory hours a week, fall quarter. Fee for materials, \$1.50.

55. ADVANCED VOICE TRAINING (5). Prerequisite, Dramatic Art 40.

Enrollment limited. Three lecture and four laboratory hours a week, spring quarter. Fee for materials, \$1.50.

61. ACTING (5).

Fall or winter quarter. Fee for materials, \$2.00. Mr. Fitz-Simons.

63. PLAY DIRECTOR (5). Prerequisite, Dramatic Art 61.

Registration is limited. Before registering for this course, students must secure the permission of Professor Selden. Students training for teaching who wish to take this course to complete a minor program in Dramatic Art should consult their advisers.

Spring quarter. Fee for materials, \$2.00. Messrs. Selden, Fitz-Simons.

All students enrolling in the following three stagecraft courses will be expected to assist with the technical work in the productions of The Carolina Playmakers.

64. SCENERY CONSTRUCTION AND PAINTING (5).

Two lecture and six laboratory hours a week, fall quarter. Fee for materials, \$2.00. Mr. Davis.

65. STAGE LIGHTING (5).

Two lecture and six laboratory hours a week, winter quarter. Fee for materials, \$2.00. Mr. Davis.

66. STAGE DESIGN (5). Prerequisite, Dramatic Art 64.

Two lecture and six laboratory hours a week, spring quarter. Fee for materials, \$2.00. Mr. Gault.

67. COSTUMING (5).

Two lecture and six laboratory hours a week, winter or 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.

Two lecture and six laboratory hours a week, fall or winter or spring quarter. Professors 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 or spring quarter. Misses Grills, Hunter, and invited lecturers.

71. SPEAKING AND ACTING FOR THE MICROPHONE (Radio 71) (5). 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, fall or winter quarter. *Fee for materials, \$2.00* Mr. Wynn.

74. DRAMATIC SCRIPT-WRITING FOR RADIO (Radio 74) (5). Open to Dramatic Art, Radio, and Journalism majors only.

A study of all forms of radio dramatic writing including unit and serial drama, dramatic narrative, and documentary drama. *Each quarter.* Mr. Schenckan.

75. RADIO PRODUCTION (Radio 75) (5). Open to Dramatic Art, Radio, and Journalism majors only. Prerequisite, Dramatic Art 70 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.

Three lecture and four laboratory hours a week, winter or spring quarter. *Fee for materials, \$2.00.* Miss Grills.

85. ELEMENTARY MOTION PICTURE PRODUCTION (5).

Registration is limited to 15 and restricted to Dramatic Art majors only. Before registering for this course, students must secure the permission of Professor Wynn.

An elementary course dealing with the basic principles of writing, producing, and directing the sound screen play.

Three lecture and four laboratory hours, fall or winter quarter. *Fee for materials, \$2.00.* Messrs. Wynn and Davis.

Courses for Graduates and Advanced Undergraduates

150 (50). SHAKESPEARE IN THE THEATRE (5).

Spring quarter. Mr. Jurgensen.

155. PLAYWRITING AND EXPERIMENTAL PRODUCTION I (5).

Four lecture and two practical hours a week, fall quarter. *Fee for experimental production, \$3.00.* Messrs. Selden, Davis, Parker, Jurgensen.

156. PLAYWRITING AND EXPERIMENTAL PRODUCTION II (5).

Four lecture and two practical hours a week, winter quarter. *Fee for experimental production, \$3.00.* Messrs. Selden, Davis, Parker, Jurgensen.

157. PLAYWRITING AND EXPERIMENTAL PRODUCTION III (5).

Four lecture and two practical hours a week, spring quarter. *Fee for experimental production, \$3.00.* Messrs. Selden, Davis, Parker, Jurgensen.

160. HISTORY OF THE THEATRE (5).

Spring quarter. Mr. Jurgensen.

161. CONTINENTAL DRAMA BEFORE IBSEN (5).

Fall quarter. Mr. Jurgensen.

162. MODERN CONTINENTAL DRAMA (5).

Winter quarter. Mr. Jurgensen.

164. BRITISH AND AMERICAN DRAMA OF THE TWENTIETH CENTURY (5).

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

201. PLAY DIRECTING, ADVANCED (5). Prerequisite, Dramatic Art 61 and 63, or equivalent training in acting and directing.

Spring quarter. *Fee for materials, \$3.00.* Mr. Selden.

202. STAGING METHODS (5). Prerequisite, Dramatic Art 64, 65, 66, and a course in freehand drawing and painting or equivalent training in designing and technical practice.

Winter quarter. *Fee for materials, \$2.00.* Mr. Davis.

203. TECHNICAL PROBLEMS IN PLAYWRITING (5). Prerequisite, Dramatic Art 155, 156, or 157.

Winter quarter. Mr. Selden.

204. PHILOSOPHICAL IDEAS IN DRAMATIC LITERATURE (5).

Spring quarter. Mr. Green.

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 secure the special permission of the head of the Department. The Staff of The Carolina Playmakers.

325. SEMINAR IN DRAMATIC ART (5).

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 COMMERCE

Professors: 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, J. M. LEAR, R. P. CALHOON, P. N. GUTHRIE, C. H. MCGREGOR, J. E. DYKSTRA

Associate Professors: R. H. SHERRILL, O. T. MOUZON, HENRY OLIVER, JR., C. C. CARTER, F. J. KOTTKE, A. G. SADLER, C. A. KIRKPATRICK, J. C. D. BLAINE

Acting Associate Professors: G. E. LENT, G. A. BARRETT

Assistant Professors: *A. T. BONNELL, R. Y. DURAND

Lecturers: F. GUTMANN, A. C. GASKILL, J. S. FLOYD, A. W. PIERPONT

Instructors: FRED WEAVER, W. E. HAISLEY, J. P. SMITH, J. M. WALLER, W. W. PATE, S. A. ROSENBERG, J. W. KENNEDY, C. L. COCHRAN, M. A. HARTMAN

Teaching Fellows: ELAINE PEARLSTINE, E. E. DITMARS

Graduate Assistants: VIRGINIA AUSTIN, I. E. GUNN, JR.

NOTE: *In certain courses where a suitable textbook is not available and a collection of books in the library has to be provided, a book fee not exceeding \$1.50 per course is charged in lieu of a textbook.*

ECONOMICS

Courses for Undergraduates

31-32. GENERAL ECONOMICS (10). Not open to Freshmen. Sophomore elective.

Five hours a week, every quarter. Messrs. Spruill, Buchanan, Heath, Lear, Oliver, Kottke, and other members of the staff.

41. RESOURCES AND INDUSTRIES (5).

Every quarter. Mr. Mouzon.

61. PRINCIPLES OF ECONOMICS (5). Not open to Freshmen or Sophomores.

Every quarter. Mr. Heer.

81. PRINCIPLES OF MONEY AND BANKING (5). Prerequisite, Economics 31-32 or equivalent.

Every quarter. Messrs. Gutmann, Floyd.

Courses for Graduates and Advanced Undergraduates

111. RESOURCES AND TECHNICS IN WORLD ECONOMY (5). Prerequisite, Economics 31-32 or equivalent.

Winter quarter. Mr. Mouzon.

121. RISK AND RISK-BEARING (5). Prerequisite, Economics 31-32 or equivalent.

Fall quarter. Mr. Lear.

* Absent on leave, 1946-1947.

124. PRINCIPLES OF MARKETING (5). Prerequisite, Economics 31-32 or equivalent.
Every quarter. Messrs. McGregor, Blaine.
131. ECONOMIC THEORY (5). Prerequisite, Economics 31-32 or equivalent.
Every quarter. Messrs. Spruill, Winslow, Oliver.
135. ECONOMIC HISTORY (5). Prerequisite, Economics 31-32 or equivalent.
Winter quarter. Mr. Buchanan.
137. ECONOMIC DEVELOPMENTS IN THE ORIENT SINCE 1800 (5).
Spring quarter. Mr. Buchanan.
141. PUBLIC FINANCE (5). Prerequisite, Economics 31-32 or equivalent.
Every quarter. Messrs. Heer, Lent.
142. PROBLEMS IN FEDERAL FINANCE (5). Prerequisite, Economics 141.
Winter quarter. Mr. Heer.
143. PROBLEMS IN STATE AND LOCAL FINANCE (5). Prerequisite, Economics 31-32 or equivalent.
Spring quarter. Mr. Heer.
145. THEORIES AND FORMS OF BUSINESS ENTERPRISE (5). Prerequisite, Economics 31-32 or equivalent.
Spring quarter. Mr. Kottke.
151. TRANSPORTATION (5). Prerequisite, Economics 31-32 or equivalent.
Fall and spring quarters. Messrs. Heath, Blaine.
153. PUBLIC UTILITIES (5). Prerequisite, Economics 31-32 or equivalent.
Winter quarter. Mr. Kottke.
161. THEORY OF INTERNATIONAL TRADE (5). Prerequisite, Economics 31-32 or equivalent.
Fall quarter. Mr. Oliver.
170. ECONOMIC STATISTICS (6). Prerequisite, Freshman Mathematics, Economics 31-32 or equivalent.
Four lecture and four laboratory hours a week, every quarter. Laboratory fee, \$3.00. Mr. Cowden.
171. ADVANCED ECONOMIC STATISTICS I (5). Prerequisite Economics 170 or its equivalent.
Five lecture hours and outside assignments a week, winter quarter. Laboratory fee, \$2.00. Mr. Cowden.
172. ADVANCED ECONOMIC STATISTICS II (5). Prerequisite, Economics 170 and 171, or equivalent.
Five lecture hours and outside assignments a week, spring quarter. Laboratory fee, \$2.00. Mr. Cowden.
185. BUSINESS CYCLES (5). Prerequisite, Economics 31-32 or equivalent, and 81.
Fall and spring quarters. Mr. Oliver.

191. AN INTRODUCTION TO THE LABOR PROBLEM (5). Prerequisite, Economics 31-32 or equivalent.

Every quarter. Messrs. Wolf, Guthrie.

192. LABOR AND SOCIAL CONTROL (5). Prerequisite, Economics 191.

Winter quarter. Mr. Wolf.

193. HISTORY OF THE LABOR MOVEMENT (5). Prerequisite, Economics 191.

This course is a history of the labor movement in the advanced industrialized countries, including the United States. Special reference is made to the economic development and the social and political philosophies of the countries covered.

Spring quarter, 1948. Mr. Guthrie.

194. SOCIAL INSURANCE (5). Prerequisite, Economics 191.

This course deals with the origin and development of social insurance as a means of dealing with the hazards of modern industrial life. It will take up, on a comparative basis, systems of social insurance in modern, industrialized countries, including the United States.

Spring quarter, 1947. Mr. Guthrie.

195. THEORIES OF ECONOMIC REFORM (5). Prerequisite, Economics 31-32 or equivalent.

Every quarter. Mr. Carroll.

197. GOVERNMENT AND BUSINESS (5). Prerequisite, Economics 31-32 or equivalent.

Spring quarter. Messrs. Hobbs, Carter.

Courses for Graduates

211. ADVANCED COMMODITY ECONOMICS (5). Prerequisite, Economics 41, 31-32 or equivalent.

Spring quarter. Mr. Mouzon.

224. THE ECONOMICS OF MARKETING (5). Prerequisite, Economics 124 or equivalent.

Spring quarter. Mr. McGregor.

235. ECONOMIC DEVELOPMENTS IN THE OCCIDENT BEFORE 1750 (5).

(1947-1948 and alternate years.) *Five hours a week, winter quarter.* Mr. Buchanan.

236. ECONOMIC DEVELOPMENTS IN THE OCCIDENT SINCE 1750 (5).

(1946-1947 and alternate years.) *Five hours a week, winter quarter.* Mr. Buchanan.

241. HISTORY OF FISCAL DOCTRINES (5). Prerequisite, Economics 141.

Spring quarter. Mr. Heer.

244. INDUSTRIAL COMBINATIONS (5). Prerequisite, Economics 31-32 or equivalent.

Winter quarter. Mr. Kottke.

251-252-253. ADVANCED ECONOMIC THEORY (15). Prerequisite, Economics 31-32 or equivalent.

Fall, winter, and spring quarters. Mr. Heath.

281. MONEY, PRICES, AND FOREIGN EXCHANGE (5). Prerequisite, Economics 81 or equivalent.

Fall quarter. Mr. Gutmann.

282. COMMERCIAL AND CENTRAL BANKING (5). Prerequisite, Economics 81 or equivalent.

Spring quarter. Mr. Woosley.

291. LABOR ECONOMICS (5). Prerequisite, Economics 191 or equivalent.

Spring quarter. Mr. Wolf.

295. CASE STUDIES IN ECONOMIC REFORM (5). Prerequisite, Economics 31-32 or equivalent, 195 or equivalent.

Winter quarter. Mr. Carroll.

324. SEMINAR IN MARKETING (5).

Equivalent of five hours a week, winter or spring quarter. Mr. McGregor.

NOTE: Registration for this course must be approved by the professor in charge.

341. RESEARCH COURSE IN PUBLIC FINANCE (5).

Equivalent of five hours a week, winter or spring quarter. Mr. Heer.
NOTE: Registration for this course must be approved by the professor in charge.

351ab. SEMINAR IN ECONOMICS (5 each quarter).

Equivalent of five hours a week, spring quarter. Messrs. Heath, Winslow.

NOTE: Registration for this course must be approved by the professor in charge.

361. INTERNATIONAL ECONOMIC RELATIONS (5).

Equivalent of five hours a week, spring quarter. Mr. Oliver.

NOTE: Registration for this course must be approved by the professor in charge.

371. RESEARCH IN ECONOMIC STATISTICS (5).

Equivalent of five hours a week, 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).

Equivalent of five hours a week, spring quarter. Mr. Woosley.

NOTE: Registration for this course must be approved by the professor in charge.

385. ECONOMIC DYNAMICS (5).

Equivalent of five hours a week, winter or spring quarter. Mr. Oliver.

NOTE: Registration for this course must be approved by the professor in charge.

391. HUMAN RELATIONS IN INDUSTRY (5).

Equivalent of five hours a week, spring quarter. Mr. Wolf.

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.

COMMERCE

(Courses in Commerce count for credit toward the degree of B.S. in Commerce only.)

Courses for Undergraduates

51. BUSINESS ORGANIZATION (5). Prerequisite, Economics 31 or equivalent.

Every quarter. Messrs. Schwenning, Blaine, Durand, Pierpont.

66. GENERAL PSYCHOLOGY FOR STUDENTS OF COMMERCE

(5). For students in the School of Commerce; not open to others.

Every quarter. Fee for materials, \$1.00. Messrs. Babgy, Shepard.

71. ACCOUNTING PRINCIPLES I (6). Prerequisite or corequisite, Economics 31-32 or equivalent, Commerce 51.

Four lecture and four laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Sherrill, Sadler, Gaskill, Smith.

72. ACCOUNTING PRINCIPLES II (6). Prerequisite, Commerce 71.

Four lecture and four laboratory hours a week, every quarter. Laboratory fee, \$3.00. Messrs. Peacock, Sherrill, Sadler, Gaskill.

91-92. BUSINESS LAW (10). Prerequisite, Economics 31-32 or equivalent.

Five hours a week, every quarter. Messrs. Hobbs, Carter, Barrett.

Courses for Graduates and Advanced Undergraduates

121. INSURANCE: LIFE (5). Prerequisite, Economics 31-32 or equivalent.

Fall quarter. Mr. Lear.

122. INSURANCE: FIRE, MARINE, BOND, AND TITLE (5). Prerequisite, Economics 31-32 or equivalent.

Winter quarter. Mr. Lear.

141. TRAFFIC PROBLEMS (5). Prerequisite, Economics 151.

(This course will be given only in case as many as five students register for it.) *Spring quarter.* Mr. Heath.

151. PRINCIPLES OF INDUSTRIAL MANAGEMENT (5). Prerequisite, Economics 31-32 or equivalent, Commerce 51.

Fall and winter quarters. Mr. Dykstra.

154. PRODUCTION MANAGEMENT: THEORIES AND PRACTICES (6). Prerequisite, Commerce 151.

Five lecture and two laboratory hours a week, winter and spring quarters. Laboratory fee, \$3.00. Mr. Dykstra.

155. PERSONNEL MANAGEMENT (5). Prerequisite, Economics 31-32 or equivalent, Commerce 51.

Every quarter. Messrs. Schwenning, Calhoon.

156. PERSONNEL PROBLEMS (5). Prerequisite, Commerce 155.

Every quarter. Messrs. Calhoon, Schwenning.

157. TIME AND MOTION STUDY (6). Prerequisite, Commerce 151. Open to seniors and graduate students only.

Five lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Dykstra.

158. MANAGEMENT PROBLEMS (5). Prerequisite, Commerce 151.

Spring quarter. Mr. Dykstra.

161. ADVERTISING (5). Prerequisite, Economics 31-32 or equivalent.

Every quarter. Mr. Kirkpatrick.

163. ADVANCED COURSE IN MARKETING (5). Prerequisite, Economics 124.

Every quarter. Mr. McGregor.

165. RETAIL DISTRIBUTION (5). Prerequisite, Economics 31-32 or equivalent, Economics 124.

Fall and winter quarters. Mr. Kirkpatrick.

167. SALES MANAGEMENT (5). Prerequisites, Economics 124 and Commerce 163.

The management of sales operations. Market and sales research as a basis of policy development and planning.

Fall and spring quarters. Mr. McGregor.

171. ADVANCED ACCOUNTING (5). Prerequisite, Commerce 71-72.

Fall and spring quarters. Mr. Peacock.

172. ACCOUNTING SYSTEMS (6). Prerequisite, Commerce 71 and prerequisite or corequisite, Commerce 72.

Five lecture and two laboratory hours a week, fall quarter. Laboratory fee, \$2.00. Mr. Sadler.

173. COST ACCOUNTING (6). Prerequisite, Commerce 71-72.

Five lecture and two laboratory hours a week, fall and winter quarters. Laboratory fee, \$2.00. Mr. Peacock.

175. AUDITING (6). Prerequisite, Commerce 71-72.

Five lecture and two laboratory hours a week, winter and spring quarters. Laboratory fee, \$2.00. Mr. Peacock.

177. INCOME TAX PROCEDURE (6). Prerequisite, Commerce 71-72.

Five lecture and two laboratory hours a week, fall and spring quarters. Laboratory fee, \$2.00. Mr. Sherrill.

179. GOVERNMENTAL ACCOUNTING (5). Prerequisite, Commerce 71-72.

Five lecture hours and outside assignments a week, winter and spring quarters. Laboratory fee, \$2.00. Mr. Sadler.

181. ADVANCED BANKING (5). Prerequisite, Economics 81.

Winter quarter. Mr. Woosley.

191. CORPORATION FINANCE (5). Prerequisite, Economics 31-32, Commerce 51 and 71.

Every quarter. Mr. Lent.

192. CORPORATE FINANCIAL POLICIES (5). Prerequisite, Economics 31-32 or equivalent, Commerce 51, 71, and 191.
Spring quarter. Mr. Woosley.

195. INVESTMENTS (6). Prerequisite, Economics 31-32, Commerce 71-72, 191.
Fall and spring quarters. Mr. Woosley.

Courses for Graduates

207. THE FUNCTIONS AND THEORIES OF MANAGEMENT (5). Prerequisite, Commerce 51 or equivalent.
Winter quarter. Mr. Schwenning.

301ab. SEMINAR IN COMMERCE (with thesis 5).
Fall, winter, and spring quarters. Mr. Woosley, *Chairman.*

399. SEMINAR (5 each quarter).
 Individual research in a special field under direction of a member of the department.

DEPARTMENT OF EDUCATION

Professors: W. CARSON RYAN, EDGAR W. KNIGHT, A. M. JORDAN, G. B. PHILLIPS, O. K. CORNWELL, ROY W. MORRISON, A. K. KING, HUGO GIDUZ (of the Department of Romance Languages), W. E. ROSENSTENGEL, J. MINOR GWYNN, H. F. MUNCH, *P. C. FARRAR

Associate Professors: W. D. PERRY, W. H. PLEMMONS

Assistant Professor: KATHRYN COOK

Visiting Professor: JAMES S. TIPPETT

Instructor: †T. ROSS FINK

Teaching Fellow: CHARLES M. CLARKE

Superintendent Chapel Hill Public Schools: CHARLES W. DAVIS

In Extension

Professor: W. J. MCKEE

Students who plan to meet the requirements for a teaching certificate are under the joint direction of the Department of Education and the respective subject matter department. The major for such students is in the teaching of the subject matter field selected.

Since it is difficult to meet all the state requirements for high school teaching in certain fields, students in the General College who are interested in teaching should consult the Division of Teacher Training as early as possible. Students are admitted to the Division of Teacher Training at the beginning of the junior year.

For further information concerning preparation for teaching see the section in the General Catalogue headed "The Division of Teacher Training."

* Professor *Emeritus.*

† Absent on leave in military service.

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). Required of all prospective teachers, but open to others.

Any quarter. Messrs. Phillips, Plemmons.

42. INTRODUCTION TO THE STUDY OF EDUCATION II (5).

Winter quarter. Mr. Plemmons.

63. MATERIALS AND METHODS OF TEACHING HEALTH AND PHYSICAL EDUCATION (5).

This is a survey and evaluation of materials and methods in the teaching of health and physical education in the public schools.

Five hours a week, fall quarter.

64. DIRECTED TEACHING OF HEALTH AND PHYSICAL EDUCATION (5).

Five hours a week, any quarter.

71. EDUCATIONAL PSYCHOLOGY (5). Required of all graduating from the Division of Teacher Training.

Four lecture and two laboratory hours a week, any quarter. Laboratory fee, \$1.00. Mr. Jordan.

75. MATERIALS AND METHODS IN HIGH SCHOOL INSTRUMENTAL MUSIC (5).

Spring quarter. Mr. Slocum.

76. MATERIALS AND METHODS IN HIGH SCHOOL CHORAL MUSIC (5).

Winter quarter. Mr. Young.

78. DIRECTED TEACHING OF ART (5). Prerequisite, courses to be determined by the instructor.

Any quarter, on application. Mr. ———.

79. DIRECTED TEACHING OF HIGH SCHOOL CHORAL MUSIC (5).

Five hours a week, any quarter, or the course may be spread out over two or three quarters. Mr. Young.

80. DIRECTED TEACHING OF HIGH SCHOOL INSTRUMENTAL MUSIC (5).

Five hours a week, any quarter, or the course may be spread out over two or three quarters. Mr. Slocum.

81, 83a, 83b, 85, 87, 89, 91. MATERIALS AND METHODS IN HIGH SCHOOL ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (5).

Any quarter. Messrs. Plemmons, Giduz, King, Gwynn, Munch.

82, 84a, 84b, 86, 88, 90, 92. DIRECTED TEACHING: ENGLISH, FRENCH, SPANISH, SOCIAL STUDIES, LATIN, MATHEMATICS, SCIENCE (5).

Any quarter. Laboratory fee, \$10.00. Messrs. Plemmons, Giduz, King, Gwynn, Munch.

95. BOOK SELECTION FOR YOUNG PEOPLE (5).

Winter quarter.

96. SELECTION AND USE OF REFERENCE MATERIALS (5).
Winter quarter. Miss Crews (of the School of Library Science).

97. BOOK SELECTION FOR CHILDREN (5).
Spring quarter.

99. PRINCIPLES AND METHODS OF SECONDARY EDUCATION (5). Required of all prospective high school teachers.
Any quarter. Mr. Gwynn.

Courses for Graduates and Advanced Undergraduates

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. Graduate courses toward a University degree in Education are also available at the Woman's College, Greensboro, and in summer session at the Appalachian State Teachers College, Boone, and Western Carolina State Teachers College, Cullowhee.

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 and Greensboro and for courses in the "Intersession" program at Chapel Hill, see separate announcements available in advance of each quarter's work.

101ab. EDUCATIONAL ADMINISTRATION (5).
Any quarter. Messrs. Phillips, Rosenstengel.

102. ELEMENTARY SCHOOL ORGANIZATION AND ADMINISTRATION (3).
Three hours a week, winter quarter. Mr. Morrison.

103ab. STATISTICAL METHODS IN EDUCATION (5). Prerequisite, Education 71 or the equivalent.
Fall and winter quarters. Messrs. Jordan, Munch, and Rosenstengel.

104. TECHNIQUES IN EDUCATIONAL LEADERSHIP (3).
Three hours a week, spring quarter. Mr. Phillips.

105ab. GUIDANCE IN THE SCHOOL (3 or 5).
Three or five hours a week, fall or winter quarter. Mr. Morrison.

106. GENERAL PRINCIPLES OF OCCUPATIONAL DIAGNOSIS AND GUIDANCE (5). Prerequisite, practical experience and at least two years of psychology and education.
Alternate fall quarters. Mr. Perry.

109ab. BUSINESS MANAGEMENT AND SCHOOL FINANCE (3 or 5). Prerequisite, Education 101 or its equivalent.
Three or five hours a week, alternate winter quarters. Messrs. Phillips and Rosenstengel.

110. PHILOSOPHY OF MODERN EDUCATION (5).
Fall quarter. Mr. Ryan.

111. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL ARTS IN THE MODERN SCHOOL (3).

Three hours a week, fall quarter.

112. EDUCATIONAL SOCIOLOGY (Sociology 171) (5).

120. PRINCIPLES OF PHYSICAL EDUCATION (3). See Physical Education.

121. ADMINISTRATION OF PHYSICAL EDUCATION (5). See Physical Education.

130. PRINCIPLES AND METHODS IN ADULT EDUCATION (3).
Three hours a week, alternate spring quarters.

131. ADULT EDUCATION—A General Survey (3).
Three hours a week, alternate spring quarters.

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. Mr. Tippet.

145. COMPARATIVE EDUCATION (5).
Spring quarter. Mr. Knight.

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.
Alternate spring quarters. Mr. Knight.

152ab. THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (3 or 5).
Three or five hours a week, fall quarter. Mr. Tippet.

154. THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3).
Three hours a week, alternate spring quarters. Mr. King.

155. NATURAL SCIENCE IN THE ELEMENTARY SCHOOL (3).
Three hours a week, alternate spring quarters. Mr. Tippet.

160ab. CURRICULUM CONSTRUCTION (3 or 5).
Open to seniors and graduate students with 25 quarter hours of credit in Education.
Three or five hours a week, fall or winter quarter. Messrs. Gwynn, Tippet.

161. PROGRESSIVE PRACTICES IN THE MODERN SCHOOL (3).
Three hours a week, winter or spring quarter. Messrs. McKee, Tippet.

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. Mr. Jordan.

172. THE PROBLEMS OF MALADJUSTMENT AMONG CHILDREN (3).

Three hours a week, winter quarter. Messrs. Jordan and Perry.

173. MENTAL MEASUREMENTS (5). Prerequisite, one course in educational psychology or a course in general psychology.

Alternate spring quarters. Mr. Jordan.

174ab. USE AND INTERPRETATION OF EDUCATIONAL TESTS AND MEASUREMENTS (3 or 5).

Three or five hours a week, fall quarter. Mr. Jordan.

175. EXTRA-CURRICULAR ACTIVITIES (Sociology 175) (5).

Spring quarter.

176. MENTAL HYGIENE IN TEACHING (5). Prerequisite, introductory courses in Psychology and Education.

Winter or spring quarter. Mr. Ryan.

177abc. INSTRUCTION AND PRACTICUM IN THE EDUCATION OF THE DEAF (9).

Ordinarily offered in first term of Summer Session only.

196. THE JUNIOR HIGH SCHOOL (3).

Three hours a week, spring quarter. Professor Gwynn.

197. SOCIAL POLICY AND EDUCATION (3).

Three hours a week, alternate winter quarters. Mr. King.

199. SECONDARY EDUCATION IN THE UNITED STATES (5).

Alternate winter quarters. Messrs. Ryan, Rosenstengel, and Plemmons.

Courses for Graduates

201. PROCEDURES IN EDUCATIONAL RESEARCH (3).

Three hours a week, any quarter. Messrs. King and McKee.

206. MANAGEMENT OF SCHOOL PLANT AND EQUIPMENT (3). Prerequisite, Education 101 or its equivalent.

Three hours a week, alternate spring quarters. Mr. Rosenstengel.

208ab. STATE AND COUNTY SCHOOL ORGANIZATION (5). Prerequisite, Education 101 or its equivalent.

Alternate winter quarters. Mr. Rosenstengel.

224. (See under Physical Education.)

225. (See under Physical Education.)

265. INVESTIGATIONS IN READING (3).

Three hours a week, alternate fall quarters. Mr. Tippet.

267ab. EDUCATION WORKSHOP (5 to 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.

Ordinarily offered in first term of Summer Session only. Mr. Ryan, members of the graduate staff, and visiting faculty.

271ab. PROBLEMS IN EDUCATIONAL PSYCHOLOGY I (5).

a. *Individual Differences* (3).

b. *Problems of Conduct* (3). 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).

Five hours a week, winter quarter. Mr. Jordan.

273. TESTS AND MEASUREMENTS IN GUIDANCE (5). Prerequisite—an elementary course in statistics or its equivalent is recommended.

Fall quarter. Mr. Jordan.

285. INVESTIGATIONS AND TRENDS IN TEACHING THE SOCIAL STUDIES (3).

Three hours a week, alternate winter quarters. Mr. King.

291. INVESTIGATIONS AND TRENDS IN TEACHING NATURAL SCIENCE (3).

Three hours a week, alternate winter quarters.

296ab. ORGANIZATION AND ADMINISTRATION OF SECONDARY SCHOOLS (3 or 5).

Three or five hours a week, winter quarter. Messrs. Gwynn and Rosenstengel.

298ab. SUPERVISION OF INSTRUCTION (3 or 5).

Three or five hours a week, fall and winter quarters. Messrs. Gwynn, McKee, Tippett.

303ab. PROBLEMS IN EDUCATIONAL ADMINISTRATION (3 to 5). Prerequisite, Education 101 or its equivalent and one other course in educational administration.

Three hours a week, any quarter. Messrs. Phillips, Rosenstengel, Ryan.

304ab. PROBLEMS IN EDUCATIONAL MEASUREMENT (3). Prerequisite, Education 174.

Three hours a week, any quarter. Mr. Jordan.

341ab. FOUNDATIONS OF MODERN EDUCATION (3 to 5). Prerequisite, Education 142 and 143, or equivalent.

Three hours a week, fall, winter, and spring quarters. Mr. Knight.

350ab. PROBLEMS IN ELEMENTARY EDUCATION (3 to 5). Prerequisite, two courses in Undergraduate Education.

Three hours a week, any quarter. Messrs. Morrison, McKee, Ryan.

360ab. PROBLEMS IN THE CURRICULUM (3 to 5). Prerequisite, two courses in Graduate Education.

Three hours a week, any quarter. Mr. Gwynn.

375. THESIS COURSE (Maximum with thesis 5).

Any quarter. Members of the Graduate Faculty.

376ab. SEMINAR IN EDUCATION (3 to 5). Prerequisite, two courses in Graduate Education.

Three or five hours a week, any quarter. Mr. Ryan and members of the Graduate Faculty.

398ab. PROBLEMS IN SECONDARY EDUCATION (3 to 5). Prerequisite, two courses in graduate secondary education.

Three hours a week, every quarter. Messrs. Gwynn and Ryan.

DEPARTMENT OF ENGLISH

Professors: C. P. LYONS, J. M. BOOKER, G. C. TAYLOR, G. L. PAINE, G. R. COFFMAN, A. P. HUDSON, *A. C. HOWELL, DOUGALD MACMILLAN, R. P. BOND, RAYMOND ADAMS, W. A. OLSEN, HARDIN CRAIG, H. K. RUSSELL, SAMUEL SELDEN, WILLIAM WELLS, R. B. SHARPE, N. E. ELIASON

Associate Professors: *R. P. McCLAMROCH, J. O. BAILEY, E. H. HARTSELL, G. F. HORNER, EARL WYNN

Assistant Professor: L. A. COTTEN

Acting Assistant Professor: CHARLES EATON

Instructors: W. P. BELCHER, S. H. BLAKELY, WILLIAM BRACY, E. A. BROWN, LUCY BYNUM, KATHERINE CARMICHAEL, W. J. CHANDLER, P. M. CHEEK, CECIL CURTIS, W. S. DOWDEN, MARY CLAIRE ENGSTROM, J. E. FARRIOR, E. H. GOOLD, JOHN HAMILTON, W. R. HARDING, J. R. HODGES, R. E. HOLLINGER, F. L. HOSKINS, JR., N. T. JOOST, H. G. LEE, MARJORIE LOVE, J. T. McCULLEN, DOROTHY D. McCULLOUGH, R. E. McGEE, H. S. McNAIRY, K. M. MACRORIE, D. H. MALONE, W. L. MOSES, J. R. NICKSON, R. S. OSBORNE, CAROLINE PACE, J. E. POINDEXTER, STELLA POLLITZ, JESSIE REHDER, IRVING RIBNER, J. G. RICE, R. C. SIMONINI, D. H. SLICER, W. O. S. SUTHERLAND, J. W. WEBB, T. B. WHITE

Teaching Fellows: R. W. BONNER, R. H. GAUGH, C. H. HOLMAN

Assistants: MACCURDY BURNET, ELIAS FRIEDLAND

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, 112, 125; (d) one of the following: English 79, 81, 82, 83 or 131, 84 or 141, 88, 89, 111, 121, 151; (e) four courses chosen as free electives from the advanced courses offered by the department (courses numbered from 41 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 Division of Teacher Training: Students aiming at a certificate to teach in the public high schools, with a major in English, should consult the Department of Education for the courses in Education and for the minor. The English requirements are: (a) English 81; (b) English 50; (c) one of the following: English 70, 95, 96; (d) one of the following: English 83, 84 or 141, or by permission 83 or 131; (e) one of the following: English 44, 45, 52, 53, 54, 55, 56, 95, 96; (f) two electives. A student may not take both 95 and 96 to

* Absent on leave, 1946-1947.

satisfy requirements (c) and (e). 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 Division of Teacher Training: Students who choose a minor program in English will take: (a) English 81; (b) English 50; (c) one of the following: English 88, 84 or 141, or by permission one of the following: English 70, 83 or 131, 99, 125; (d) one of the following: English 52, 53, 54, 96, or by permission an elective.

Honors in English: Students interested in reading for honors in English should consult the regulations governing the honors program in the Division of Humanities.

1. FRESHMAN ENGLISH: GRAMMAR AND COMPOSITION (5).
Required of all freshmen except those qualifying for English 2.
One quarter. Mr. Horner, *Chairman*, and the freshman staff.

2. FRESHMAN ENGLISH: COMPOSITION AND RHETORIC (5).
Required of all freshmen who have passed English 1 or been exempted from it.
Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and the freshman 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). Prerequisite, 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). Prerequisite, English 2 and 3.
Readings in the novel (Hawthorne, Hardy, Twain, Maugham, Lewis), and in selected contemporary short stories. Sophomore option.
Fall, winter, or spring quarter. Mr. Horner, *Chairman*, and staff.

6. AMERICAN LITERATURE (5). Prerequisite, English 2 and 3.
Substantial readings in Thoreau, Emerson, Poe, Hawthorne, Whitman, and Twain. 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 for recordings, \$1.50. Mr. Wynn.

41. THE ORAL INTERPRETATION OF LITERATURE (5).
Fall quarter. (Not offered in 1946-1947).

44. PUBLIC SPEAKING (5).
Composition and delivery of original speeches. Recordings.
Fall, winter, or spring quarter. Laboratory fee, \$1.50. Mr. Olsen.

45. ARGUMENTATION AND PUBLIC DISCUSSION (5).
Winter quarter. Mr. ———.

50. SHAKESPEARE (5).

Study of about twenty representative comedies, histories, and tragedies.

Fall and spring quarters, Mr. Taylor; winter quarter, Mr. Craig.

51. ADVANCED COMPOSITION: PRACTICAL EXPOSITION (5).

Primarily for Commerce and Pharmacy students. Business forms, letters, reports, professional papers, and articles for the press.

Permission of the instructor is required for registration. Fall quarter, Mr. Howell; spring quarter, Mr. Bailey.

52. ADVANCED COMPOSITION: THE TECHNIQUE OF EXPOSITION (5).

Expository writing for students desiring practice in the organization of material.

Permission of the instructor is required for registration. Winter quarter, Mr. Bailey; spring quarter, Mr. Hartsell.

53. CREATIVE WRITING I: INTRODUCTION TO THE SHORT STORY (5).

Class discussion of classic short stories and general literary principles, and technical training in the writing of original short stories.

Permission of the instructor is required for registration. Fall or spring quarter. Mr. Eaton.

54. CREATIVE WRITING II (5).

An advanced course in imaginative writing for students who have had some previous experience in this field.

Permission of the instructor is required for registration. Winter quarter. Mr. Eaton.

55. ADVANCED VOICE TRAINING (5).

Prerequisite, English 40 or the permission of the instructor. *Spring quarter. Laboratory fee for recordings, \$1.50. Mr. _____.*

56. ADVANCED PUBLIC SPEAKING (5).

Composition and delivery of original speeches. Analysis of propaganda techniques and political speeches, and of relations of language to meaning. Recordings. Prerequisite, English 44 or the permission of the instructor.

Winter quarter. Laboratory fee, \$1.50. Mr. Olsen.

59. SCIENTIFIC WRITING (5).

To meet the needs of students in the sciences, through practice in writing explanations, descriptions, business letters, professional papers, and reports.

Permission of the instructor is required for registration. Fall quarter, Mr. Hartsell; winter quarter, Mr. Howell.

70. CHAUCER (5).

The poet as literary artist in *The Canterbury Tales* and other selected works.

Fall quarter. Mr. Lyons or Mr. Coffman.

72-73. COURSES 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.

79. ENGLISH LITERATURE, 1890-1920 (5).
Hardy, Henley, Housman, Kipling, Wilde, Shaw, Pinero, Bennett, Wells, Conrad, Galsworthy, and the Irish Revival.
Winter quarter. Mr. Booker.
81. AMERICAN LITERATURE (5).
A survey, 1830 to 1855, with especial attention to Poe, Emerson, Thoreau, Lowell, Hawthorne, and Melville.
Fall quarter, Mr. Adams; *spring quarter,* Mr. Paine or Mr. Horner.
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.
Winter quarter. Mr. Adams.
83. PROSE AND POETRY OF THE CLASSICAL PERIOD (5).
Addison, Steele, Swift, Pope, Johnson, Boswell, Gray, Cowper.
Fall quarter. Mr. Bond.
84. THE CHIEF ROMANTIC POETS (5).
Wordsworth, Coleridge, Scott, Byron, Shelley, and Keats.
Spring 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.
Fall quarter. Mr. Howell.
88. VICTORIAN LITERATURE I, 1832-1860 (5).
Carlyle, Tennyson, Browning, Dickens, Thackeray, and Charlotte Bronte.
(1946-1947 and alternate years.) *Fall quarter.* Mr. Booker.
89. VICTORIAN LITERATURE II, 1860-1890 (5).
Ruskin, Arnold, Rossetti, Morris, Swinburne, George Eliot, and Meredith.
(1947-1948 and alternate years.) *Winter quarter.* Mr. Booker.
91. THE ENGLISH NOVEL (5).
The English novel from Defoe to Hardy.
Fall quarter, Mr. MacMillan; *winter quarter,* Mr. Russell.
93. THE ENGLISH DRAMA (5).
The English drama from the beginnings to 1900.
Fall quarter. Mr. Wells.
94. PRINCIPLES OF LITERARY ART (5).
A study of the theories of literature through their application to specific English masterpieces.
Spring quarter. Mr. Bond or Mr. Lyons.
95. THE ENGLISH LANGUAGE (5).
English of the present day, standard and dialectal, its historical background and development, British and American.
Spring quarter. Mr. Eliason.
96. ENGLISH GRAMMAR (5).
A study of modern English grammar especially for prospective teachers: bases of grammatical rules, prescriptive *vs.* descriptive grammar, relationship of grammar and composition.
Winter quarter. Mr. Eliason.

97. RECENT ENGLISH PROSE (5).

A study of British and American prose writings, chiefly fiction, since 1920.

Spring quarter. Mr. Bailey or Mr. Russell.

98. RECENT BRITISH AND AMERICAN POETRY (5).

A study of the poetry written in English since 1920.

Winter quarter. Mr. Cotten.

99. HISTORY OF ENGLISH LITERATURE (5).

A survey of the development of English literature from the beginnings to the present, with recommended readings.

Winter quarter. Mr. Sharpe.

100. DIRECTED READINGS (5). Open to advanced students by permission of Mr. Russell.

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.

Winter quarter. Mr. Craig.

111. ENGLISH LITERATURE OF THE RENAISSANCE (5).

A survey of the literature of the Elizabethan period, exclusive of the drama.

Fall quarter. Mr. Craig.

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.

Winter quarter. Mr. Coffman.

114. ENGLISH DRAMA, 1600-1642 (5).

Jacobean and Caroline drama, with emphasis on Jonson, Chapman, Webster, Beaumont, Fletcher, Massinger, and Ford.

Spring quarter. Mr. Sharpe.

121. ENGLISH LITERATURE, 1616-1700 (5).

The non-dramatic literature of the period.

(1947-1948 and alternate years.) *Spring quarter.* Mr. Howell.

125. MILTON (5).

The works of Milton studied in the light of the life, times, and culture of the poet.

Winter quarter. Mr. Taylor.

131. ENGLISH LITERATURE, 1700-1780 (5).
The non-dramatic literature of the period.
Fall quarter. Mr. Bond (1947), Mr. MacMillan (1948).
133. RESTORATION AND EIGHTEENTH-CENTURY DRAMA (5).
A study of the drama from 1660 to 1780.
Winter quarter. Mr. MacMillan.
141. ENGLISH LITERATURE, 1780-1830 (5).
A survey of the romantic period, with especial attention to the greater poets.
Fall quarter. Mr. Hudson.
148. NINETEENTH-CENTURY DRAMA, ENGLISH AND AMERICAN (5).
A survey of dramatic movements and writers from 1780 to 1900.
Fall quarter. Mr. Bailey.
151. EARLY AMERICAN LITERATURE (5).
A survey of the colonial, revolutionary, and early national periods, including Bryant, Irving, and Cooper.
Fall quarter. Mr. Paine.
153. SOUTHERN AMERICAN LITERATURE (5).
Winter quarter. Mr. Paine.
163. LITERARY CRITICISM (5).
The principles which have animated classical, romantic, and realistic literature.
Winter quarter. Mr. Bond (1947), Mr. Lyons (1948).
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.
Winter 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. Coffman.
204. HISTORY OF THE ENGLISH LANGUAGE (5). Prerequisite, English 101, 202.

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.

Fall quarter. Mr. Coffman or Mr. Lyons.

231. SHAKESPEARE: THE COMEDIES (5).

Emphasis on historical and critical problems presented by Shakespeare's works.

Winter quarter. Mr. Taylor.

232. SHAKESPEARE: THE TRAGEDIES (5).

Emphasis on historical and critical problems presented by Shakespeare's works.

Spring quarter. Mr. Taylor.

243. VICTORIAN LITERATURE I, 1832-1890 (5).

The use of classical, medieval, and renaissance sources by Tennyson, Browning, Arnold, Morris, and Swinburne.

(1946-1947 and alternate years.) *Winter quarter.* Mr. Booker.

244. VICTORIAN LITERATURE II, 1832-1890 (5).

The social and religious literature of Carlyle, Dickens and the humanitarian novelists, Tennyson, Browning, Ruskin, Arnold, Morris, and Swinburne.

(1947-1948 and alternate years.) *Spring quarter.* Mr. Booker.

283. AMERICAN LITERATURE, 1830-1855 (5).

English 151 precedes this survey, but is not prerequisite. Poe, Emerson, Thoreau, Longfellow, Lowell, and Hawthorne.

(1946-1947 and alternate years.) *Spring quarter.* Mr. Adams.

284. AMERICAN LITERATURE, 1855-1900 (5).

Chief authors: Melville, Lanier, Whitman, Mark Twain, Bret Harte, Howells, and James. Realism, literary criticism, and the dominance of magazines.

(1947-1948 and alternate years.) *Spring quarter.* Mr. Paine.

307. SEMINAR: STUDIES IN MEDIEVAL LITERATURE (5).

Research in special problems in the vernacular literature of the Middle Ages.

Winter quarter. Mr. Coffman.

310 I: SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (5).

Fall quarter. Mr. Taylor.

310 II: SEMINAR: STUDIES IN ELIZABETHAN LITERATURE (5).

Spring quarter. Mr. Craig and Mr. Lyons.

312. SEMINAR: STUDIES IN SEVENTEENTH-CENTURY LITERATURE (5).

Winter 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 (1947), Mr. Bond (1948).

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. Paine or Mr. Adams.

320. SEMINAR: STUDIES IN VICTORIAN LITERATURE (5).

The study of a Victorian writer selected by the seminar.

By special arrangement. Mr. Booker.

325. SEMINAR: MODERN DRAMA (Dramatic Art 325) (5).

Fall quarter. Mr. Sharpe and Mr. 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.

Winter and spring quarters. Mr. Paine.

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: R. S. BOGGS, *Secretary*, J. P. GILLIN, U. T. HOLMES,
A. P. HUDSON, RICHARD JENTE, G. B. JOHNSON, J. P. SCHIN-
HAN

Courses for Graduates and Advanced Undergraduates

105. CELTIC: OLD IRISH (French 105) (5).

Winter quarter. Mr. Holmes.

122. CULTURAL ANTHROPOLOGY (Anthropology 122) (5).

(1946-1947 and alternate years.) *Fall quarter.* Mr. Gillin.

127. NATIVE PEOPLES AND CULTURES OF LATIN AMERICA (Anthropology 127) (5).

Prerequisites, ability to read Spanish and/or Portuguese and undergraduate work in one or more social sciences.

(1946-1947 and alternate years.) *Winter quarter.* Mr. Gillin.

167. THE ENGLISH BALLAD (English 167) (5).

Winter quarter. Mr. Hudson.

185. INTRODUCTION TO FOLKLORE (Comparative Literature 185) (5).

Fall quarter. Mr. Boggs.

Courses for Graduates

203. PROVERBIAL SPEECH (5). Prerequisite, Folklore 185.

Spring quarter. Mr. Jente.

204-205. INTRODUCTION TO COMPARATIVE MUSICOLOGY (Music 204-205).

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.

210. FOLK SOCIOLOGY (Sociology 210) (5). Prerequisite, Folklore 185.

Spring quarter. Mr. Odum.

222. FOLK CULTURES IN THE MODERN WORLD (Anthropology 222) (5). Prerequisite, Folklore 185.

(1947-1948 and alternate years.) *Spring quarter.* Mr. Gillin.

230. RACE AND CULTURE CONTACTS (Anthropology 230) (5). Prerequisite, Folklore 185.

Winter quarter. Mr. Johnson.

314. FOLK NARRATIVE (5). Prerequisite, Folklore 185.

Winter quarter. Mr. Boggs.

395. RESEARCH (5).

Research in a special field under the direction of members of the staff.

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Professors: W. F. PROUTY, G. R. MACCARTHY, J. W. HUDDLE,
S. T. EMORY, *F. C. ERICKSON

Associate Professors: W. A. WHITE, †J. S. GIBSON

Assistant Professor: †R. L. INGRAM

Lecturer: *DAVID OLSON

Part-time Instructors: J. W. HARRINGTON, W. G. STEEL, †W. N. TURNER

Teaching Fellow: T. P. FIELD

Assistants: H. L. BERRYHILL, LOUISE RUSSELL, J. E. JOHNSTON,
W. D. JOHNSON, W. W. BURCHFIEL, JR., J. C. GRIER, E. C. BERRY, P. E. MULLINAX, GERALD MEYER

GEOLOGY

For A.B. with major in Geology there are required, beyond Introduction to Physical and Historical Geology, the following courses: Geology 101, 102, 103 and 104, 105, 106 or 107, 108, 109. The introductory courses in Chemistry and Physics are required, but may be taken in the General College. Four additional courses are to be chosen from allied departments, and six courses outside the Division of Natural Sciences.

For S.B. in Geology the following are required:

GENERAL COLLEGE

English 1-2, 3, 4

Foreign language (4 courses)
(French, German, or Spanish)

Chemistry 1-2-3

Social Science 1-2

Geology 41, 42

Mathematics 7-8

Geography 38

Physical Education

Hygiene

UPPER COLLEGE

English 59

Physics 24-25

Geology 101, 102, 103

Geology 104, 105, 106

Geology 107, 108, 109

Geography 71 or equivalent

Geology 128-129 (summer field course)

Elective—4 courses, not Geology

Courses for Undergraduates

1 (Natural Science 3b). ELEMENTS OF GEOLOGY (4). Freshman elective. See Departments of Botany and Zoology for Natural Science 1 and 2.

Three lecture and two laboratory hours a week, fall, winter, and spring quarters. Laboratory and field trip fee, \$2.00. Mr. Huddle; Assistant.

* Resigned Sept. 1, 1947.

† Appointment effective Sept. 1, 1947.

***41. INTRODUCTION TO PHYSICAL GEOLOGY (6).**

Five lecture and two laboratory hours a week, each quarter. Laboratory fee, \$2.00 a quarter. Messrs. Prouty, MacCarthy, White, Ingram, Assistants.

***42. INTRODUCTION TO HISTORICAL GEOLOGY (6).**

Five lecture and two laboratory hours a week, each quarter. Laboratory fee, \$2.00 a quarter. Messrs. Huddle, Prouty, Assistants.

61. MAP MAKING AND MAP INTERPRETATION (6).

Four lecture and four laboratory hours a week with assigned field work and problems, fall quarter. Laboratory fee, \$3.00. Mr. Prouty.

64. INTRODUCTION TO METEOROLOGY (5).

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. MacCarthy.

Courses for Graduates and Advanced Undergraduates

101. MINERALOGY (6). Prerequisite, Chemistry 1-2, or special permission.

Three lecture and six laboratory hours a week, fall quarter. Laboratory fee, \$7.00. Mr. White; Assistant.

102. LITHOLOGY AND THE ELEMENTS OF PETROLOGY (5). Prerequisite, Geology 41, 42, and 101.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$3.50. Mr. White.

103. FIELD GEOLOGY (5). Prerequisite, Geology 101, 102, Geography 71 or equivalent.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$3.50. Mr. Prouty.

104, 105, 106. ADVANCED GENERAL GEOLOGY (5 each). Prerequisite, Geology 103, General Physics.

Three lecture and four laboratory hours a week, 104, fall quarter; 105, winter quarter; 106, spring quarter. Laboratory fee, \$3.50 each. Messrs. MacCarthy, Huddle.

107. STRUCTURAL GEOLOGY (5). Prerequisite, Geology 103, General Physics.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$3.50. Mr. Prouty.

108. ECONOMIC GEOLOGY (5). Prerequisite, Geology 107.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$3.50. Mr. Prouty.

109. ELEMENTS OF GEOPHYSICS (5). Prerequisite, Geology 107, Trigonometry, General Physics.

Three lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Mr. MacCarthy.

* For students who have already completed their General College Science requirements, either Geology 41 or 42 may be taken separately for credit; but for the first two years of General College work, credit will not be given for either 41 or 42 taken separately, except to School of Commerce students.

117. SOILS (5). Prerequisite, Introductory Geology, Chemistry 1-2, or equivalent.

Spring quarter. Laboratory fee, \$2.50. Mr. White.

121. GEOMORPHOLOGY (5). Prerequisite, Geology 41, 42.

Five hours a week, lectures and laboratory, winter quarter. Laboratory fee, \$2.50. Mr. White.

128-129. SUMMER FIELD COURSES IN GEOLOGY (12). Prerequisite, Geology 101, 102, 103.

Equivalent to twelve hours a week for one quarter. Messrs. Prouty, MacCarthy, Huddle, White.

144-145. PETROGRAPHY (5 each). Prerequisite, Geology 101, 102.

(Given as required.) Three lecture and four laboratory hours a week, fall and winter quarters. Laboratory fee, \$3.50 a quarter. Mr. White.

147. DETERMINATIVE MINERALOGY (6). Prerequisite, Geology 101.

Three lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$7.00. Mr. White.

164. SYNOPTIC METEOROLOGY (5). Prerequisite, Geology 64, General Physics or equivalent.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$2.50. Mr. MacCarthy.

168, 169. FIELD WORK IN GEOPHYSICS (5 each). Prerequisite, Geology 109, General Physics.

Given any quarter, on application. Mr. MacCarthy.

Courses for Graduates

221, 222, 223. ADVANCED STRUCTURAL GEOLOGY (5 each). Prerequisite, Geology 104, 105, 106, 107.

Four lecture and two laboratory hours a week, 221, fall quarter; 222, winter quarter; 223, spring quarter. Laboratory fee, \$4.00 each quarter. Mr. Prouty.

224, 225, 226. ADVANCED ECONOMIC GEOLOGY (5 each). Prerequisite, Geology 104, 105, 106, 108.

Two lecture and six laboratory hours a week, 224, fall quarter; 225, winter quarter; 226, spring quarter. Laboratory fee, \$2.50 each. Mr. Prouty.

227. OIL GEOLOGY (5). Prerequisite, Geology 104, 105, 107.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$2.50. Mr. Prouty.

228-229. ADVANCED FIELD GEOLOGY (6 each). Prerequisite, Geology 128-129.

Equivalent to six hours a week for two quarters. Laboratory fee, \$2.50 each quarter. Messrs. Prouty, MacCarthy, Huddle, White.

241, 242. ADVANCED MINERALOGY (5 each). Prerequisite, Geology 144, 145, except by permission.

Two lecture and six laboratory hours a week, on application. Laboratory fee, \$5.00 each quarter. Mr. White; Assistant.

244, 245. ADVANCED PETROLOGY (5 each). Prerequisite, Geology 144-145.

(1946-1947 and alternate years.) *Two lecture and six laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$5.00 each quarter.* Mr. White.

261, 262. APPLIED GEOPHYSICS (5 each). Prerequisite, Geology 109; Mathematics through Calculus.

Three lecture and four laboratory hours a week, winter and spring quarters. Laboratory fee, \$5.00 each quarter. Mr. MacCarthy; Assistant.

265. THE PHYSICS OF THE EARTH: GEODYNAMICS (5). Prerequisite, Geology 104, 105, 106.

Winter quarter. Mr. MacCarthy.

281, 282, 283. STRATIGRAPHY OF NORTH AMERICA (5 each). Prerequisite, Geology 104, 105, 106.

(1946-1947 and alternate years.) *Winter and spring quarters.* Mr. Huddle.

284. PRINCIPLES OF PALEONTOLOGY (5). Prerequisite, Zoology 41 or Botany 41, Geology 106.

(1946-1947 and alternate years.) *Fall quarter.* Mr. Huddle.

285, 286. ADVANCED PALEONTOLOGY (5 each). Prerequisite, Geology 284.

(1946-1947 and alternate years.) *Two lecture and six laboratory hours a week, winter and spring quarters. Laboratory fee, \$5.00 each.* Mr. Huddle.

287. FORAMINIFERA (5). Prerequisite, Geology 106.

Two lecture and six laboratory hours a week, winter quarter, on application. Laboratory fee, \$5.00. Mr. Huddle.

288, 289. MICROPALAEONTOLOGY (5 each). Prerequisite, Geology 287.

Equivalent to five hours a week, each quarter. On application. Laboratory fee, \$5.00 each quarter. Mr. Huddle.

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 (5 or more). Mr. Prouty.

329. RESEARCH IN ECONOMIC GEOLOGY (5 or more). Mr. Prouty.

341. RESEARCH IN MINERALOGY (5 or more). Mr. White.

349. RESEARCH IN PETROLOGY (5 or more). Mr. White.

361. RESEARCH IN GEOPHYSICS (5 or more). Mr. MacCarthy.

381. RESEARCH IN STRATIGRAPHY (5 or more). Mr. Huddle.

389. RESEARCH IN PALEONTOLOGY (5 or more). Mr. Huddle.

GEOGRAPHY

For A.B. with major in Geography there are required, in addition to Geography 38, 39 and Geology 41, six courses in Geography and Geology and six courses in allied studies, selected with the approval of the Head of the Department of Geology and Geography. Six courses must be taken outside the Division of Natural Science.

Geography 38, 39 is recommended as preparation for all advanced Geography courses.

Courses for Undergraduates

38. INTRODUCTION TO GEOGRAPHY (6). Natural Science Credit.

Five lecture and two laboratory hours a week, each quarter. Laboratory fee, \$2.00. Messrs. Emory, Gibson.

39. INDUSTRIAL AND COMMERCIAL GEOGRAPHY (5).

Spring quarter. Laboratory fee, \$1.00. Messrs. Emory, Gibson.

71. CARTOGRAPHY (5).

Two lectures and six laboratory hours a week. Laboratory fee, \$3.00. Mr. Gibson.

75. TRADE ROUTES AND TRADE CENTERS (5).

Five lectures a week. Laboratory fee, \$1.00. Mr. Emory.

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

118. LAND UTILIZATION MAPPING, RURAL OR URBAN (5).
Laboratory fee, \$2.50. Messrs. Gibson, Emory.

153. POLITICAL GEOGRAPHY (5).

Messrs. Gibson, Emory.

154. GEOGRAPHICAL INFLUENCES IN AMERICAN HISTORY (5).

Mr. Emory.

155. CLIMATOLOGY (5).

Messrs. Gibson, Emory.

156. CONSERVATION OF NATURAL RESOURCES (5).

Mr. Gibson.

157. GEOGRAPHY OF NORTH AMERICA (5).

Messrs. Emory, Gibson.

158. GEOGRAPHY OF EUROPE (5).

Mr. Gibson.

159. GEOGRAPHY OF SOUTH AMERICA (5).

Mr. Gibson.

171. ADVANCED CARTOGRAPHY (5).

Two lectures and six laboratory hours a week. Laboratory fee, \$3.00. Mr. Gibson.

178, 179. FIELD COURSE IN GEOGRAPHY. Prerequisite, Geography 38, 39, Geology 41. Messrs. Emory, Gibson.

Courses for Graduates

211. SPECIAL WORK IN GEOGRAPHY (5 or more). Prerequisite, Geography 38, 39 and two courses in the one hundred bracket. *Five hours a week, each quarter. Messrs. Gibson, Emory.*

DEPARTMENT OF GERMANIC LANGUAGES

Professors: RICHARD JENTE, G. S. LANE

Associate Professors: W. P. FRIEDERICH, F. E. COENEN

Instructors: ERNST MORWITZ, WILLIAM R. BARRETT, MRS. W. R. BARRETT, MRS. W. J. CHANDLER, GERTRUDE ADLER, G. A. HARRER

Teaching Fellow: HARRY TUCKER, JR.

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. Coenen; Assistants.

***3-4. INTERMEDIATE GERMAN (10).**

Five hours a week, each quarter. Mr. Friederich; Assistants.

14-15-16. BEGINNING GERMAN FOR ADVANCED STUDENTS

(15).

Five hours a week, fall, winter, and spring quarters. Mr. Lane.

***21-22. INTRODUCTION TO GERMAN LITERATURE (10).** Pre-

requisite, German 4, 16, or equivalent.

Five hours a week, each quarter. Messrs. Jente and Friederich.

***25-26. SCIENTIFIC GERMAN (10).** Prerequisite, German 4 or

equivalent. Open only to students with majors in a science.

Five hours a week, each quarter. Mr. Coenen.

31-32. SPOKEN AND WRITTEN GERMAN (10). Prerequisite,

German 4, 16, or equivalent.

Five hours a week, each quarter. Mr. Jente.

RUSSIAN 76-77. BEGINNING RUSSIAN (10).

Five hours a week, winter and spring quarters. Mr. Lane.

* Either of these courses may be taken separately for elective credit if the language requirement as already been satisfied.

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.
Fall quarter. Mr. Coenen.
115. THE GERMAN LYRIC FROM GOETHE TO THE PRESENT (5). Prerequisite, German 22, or the equivalent.
Winter quarter. Mr. Jente.
121. GOETHE (5). Prerequisite, German 22, or the equivalent.
Winter quarter. Mr. Jente.
123. FAUST (5). Prerequisite, German 22, or the equivalent.
Spring quarter. Mr. Friederich.
131. LESSING AND HIS TIME (5). Prerequisite, German 22, or the equivalent.
Fall quarter. Mr. Friederich.
141. SCHILLER (5). Prerequisite, German 22, or the equivalent.
Spring quarter. Mr. Jente.
151. CONTEMPORARY GERMAN LITERATURE (1885-1930) (5). Prerequisite, German 22, or the equivalent.
Winter quarter. Mr. Jente.
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

221. GOTHIC (5).
Fall quarter. Mr. Lane.
222. OLD HIGH GERMAN (5).
Winter quarter. Mr. Lane.
223. COMPARATIVE GERMANIC GRAMMAR (5).
Spring quarter. Mr. Lane.
232. OLD SAXON (5).
Winter quarter. Mr. Lane.
- 233-234. OLD NORSE (10).
Five hours a week, winter and spring quarters. Mr. Lane.
- 235-236. MIDDLE HIGH GERMAN (10).
Five hours a week, winter and spring quarters. Mr. Jente.

240. READING COURSE (5).
One quarter. Mr. Friederich.
241. THE ROMANTIC SCHOOL IN GERMANY (5).
Spring quarter. Mr. Coenen.
252. THE RENAISSANCE AND REFORMATION (1400-1600) (5).
Spring quarter. Mr. Jente.
253. FROM OPITZ TO GOTTSCHED (5).
Spring quarter. Mr. Friederich.
- 341-342. SEMINAR IN LITERATURE (10).
Five hours week, according to need. Messrs. Jente, Friederich.
- 361-362. SEMINAR IN LINGUISTICS (10).
Five hours a week, any quarter, on demand. Mr. Lane.
395. RESEARCH (5).

DEPARTMENT OF HISTORY

Professors: A. R. NEWSOME, J. G. DER. HAMILTON, W. W. PIERSON, M. B. GARRETT, W. E. CALDWELL, L. C. MACKINNEY, H. T. LEFLER, F. M. GREEN, H. K. BEALE, R. D. W. CONNOR, C. H. PEGG, CECIL JOHNSON

Associate Professors: J. C. SITTERSON, J. L. GODFREY

Instructors: J. B. MACLEOD, J. L. BATES, REX BEACH, C. O. CATHEY, H. B. CLAY, MRS. CAROLYN DANIEL, W. M. DARDEN, E. W. DAVIS, ELLEN-FAIRBANKS DIGGS, D. W. GRANTHAM, R. A. LIVELY, H. W. RAPER, MRS. SANDRA SAUNDERS, R. T. SLINKARD, J. L. SNELL, A. L. THROCKMORTON, P. A. WALKER, R. W. WILLIAMS, MRS. C. P. SPRUILL, LALA CARR, WILLIE JOSEPHINE MATHIS, W. P. ROBERTS, F. W. RYAN, A. N. SANDERS, DAN STOUT

Teaching Fellows: MARY FRANCIS GYLES, PORTER LEE FORTUNE, PHILIP M. RICE

Waddell Memorial Fellows: J. C. WARD, HILDA JANE ZIMMERMAN

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 and winter quarters. Mr. Johnson.

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, 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.

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. THE ORIENT AND EARLY GREECE (5).

(1947-1948 and alternate years.) *Fall quarter.* Mr. Caldwell.

52. GREECE: THE CLASSICAL PERIOD (5).

(1947-1948 and alternate years.) *Spring quarter.* Mr. Caldwell.

53. HELLENISTIC GREECE AND THE ROMAN REPUBLIC (5).

(1946-1947 and alternate years.) *Fall quarter.* Mr. Caldwell.

54. THE ROMAN EMPIRE (5).

(1946-1947 and alternate years.) *Spring quarter.* Mr. Caldwell.

64. EARLY MEDIEVAL EUROPE: THE "DARK" AGES, 300-1000 (5).

(1946-1947 and alternate years.) *Fall quarter.* Mr. MacKinney.

65. EUROPE IN THE CRUSADING AGE, 1000-1300 (5).

(1947-1948 and alternate years.) *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).
Not credited towards a major.

Both 21 and 71 may not be taken for credit by a student.

Fall, winter, and spring quarters. Messrs. Lefler and Sitterson.

72. AMERICAN HISTORY SINCE 1865: GENERAL COURSE (5).
Not credited towards a major.

Both 22 and 72 may not be taken for credit by a student.

Fall, winter, and spring quarters. Messrs. Lefler, Beale, Sitterson.

91. HISPANIC-AMERICAN COUNTRIES DURING THE NATIONAL PERIOD (5).

Winter quarter. Mr. Sitterson.

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 Department of Education.

Courses for Graduates and Advanced Undergraduates

121. MEDIEVAL CULTURAL LIFE (5).
(1946-1947 and alternate years.) *Fall quarter*. Mr. MacKinney.
122. SOCIAL-ECONOMIC HISTORY OF THE MIDDLE AGES (5).
(1947-1948 and alternate years.) *Fall quarter*. Mr. MacKinney.
123. SPANISH CIVILIZATION (5).
Winter quarter. Mr. MacKinney.
130. EUROPEAN FOUNDATIONS OF MODERN EDUCATION
(Education 142) (5).
Winter quarter. Mr. Knight (of the Department of Education).
131. THE PROTESTANT REVOLT (5).
(1947-1948 and alternate years.) *Fall quarter*. Mr. Garrett.
132. THE RISE OF ABSOLUTISM IN EUROPE (5).
Winter quarter. Mr. Garrett.
133. THE FRENCH REVOLUTION AND THE NAPOLEONIC
PERIOD (5).
Spring quarter. Mr. Garrett.
134. RISE OF DEMOCRACY AND NATIONALISM IN MODERN
EUROPE (5).
(1946-1947 and alternate years.) *Fall quarter*. Mr. Garrett.
135. THE WORLD WAR (5).
Winter quarter. Mr. Garrett.
136. RECENT AND CONTEMPORARY EUROPEAN HISTORY
(5).
Spring quarter. Mr. Pegg.
138. ENGLAND FROM 1485 TO 1760 (5).
Fall quarter. Mr. Godfrey.
139. GREAT BRITAIN FROM 1760 TO 1867 (5).
(1946-1947 and alternate years.) *Winter quarter*. Mr. Godfrey.
140. GREAT BRITAIN SINCE 1867 (5).
(1947-1948 and alternate years.) *Winter quarter*. Mr. Godfrey.
141. DEVELOPMENT OF THE ENGLISH CONSTITUTION (5).
Same as Political Science 154.
Fall quarter. Mr. Godfrey.
142. HISTORY OF MODERN RUSSIA (5).
Fall quarter. Mr. Pegg.
143. THE DIPLOMATIC HISTORY OF THE UNITED STATES
(5).
Spring quarter. Mr. Johnson.
145. A HISTORY OF AMERICAN IDEAS I, 1607-1860.
(1946-1947 and alternate years.) *Spring quarter*. Mr. Beale.
146. A HISTORY OF AMERICAN IDEAS II, 1861-1941 (5).
(1947-1948 and alternate years.) *Spring quarter*. Mr. Beale.

149. THE AMERICAN COLONIES I, 1606-1689 (5).
Fall quarter. Mr. Lefler.
150. THE AMERICAN COLONIES II, 1689-1775 (5).
Winter quarter. Mr. Lefler.
151. THE FEDERAL PERIOD, 1783-1815 (5).
Spring quarter. Mr. Newsome.
152. THE ANTE-BELLUM PERIOD, 1815-1860 (5).
Fall quarter. Mr. Newsome.
153. THE AMERICAN REVOLUTION (5).
Spring quarter. Mr. Connor.
154. CIVIL WAR AND RECONSTRUCTION (5).
Fall quarter. Mr. Beale.
155. RECENT HISTORY OF THE UNITED STATES, 1877-1901
(5).
(1947-1948 and alternate years.) *Fall quarter.* Mr. Beale.
156. RECENT AMERICAN HISTORY, 1901-1941 (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Beale.
159. THE BRITISH EMPIRE (5). Same as Political Science 159.
Spring quarter. Mr. Godfrey.
161. NORTH CAROLINA I, 1584-1815 (5).
Fall quarter. Mr. Connor.
162. NORTH CAROLINA II, 1815-1940 (5).
Winter quarter. Mr. Connor.
163. THE OLD SOUTH (5).
Winter quarter. Mr. Green.
164. THE SOUTH SINCE THE CIVIL WAR (5).
Spring quarter. Mr. Green.
167. ECONOMIC HISTORY OF THE UNITED STATES I, 1783-
1860 (5).
(1946-1947 and alternate years.) *Spring quarter.* Mr. Sitterson.
168. ECONOMIC HISTORY OF THE UNITED STATES II, 1860-
1941 (5).
(1947-1948 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 Department of Education).
175. THE CONSTITUTION OF THE UNITED STATES (Political
Science 155) (5).
Winter quarter. *Materials fee, \$1.00.* Mr. Jenkins (of the Depart-
ment of Political Science).

Courses for Graduates

- 201ab. HISTORIOGRAPHY (3 each). Required of all graduate
students in history.
Fall and winter quarters. Messrs. Caldwell and Newsome.

206. GREEK HISTORY, 500-146 B.C. (5).
Fall quarter. Mr. Caldwell.
207. ROMAN HISTORY, 133-31 B.C. (5).
Winter quarter. Mr. Caldwell.
208. ROMAN HISTORY, 31 B.C.-180 A.D. (5).
Spring quarter. Mr. Caldwell.
224. THE AGE OF THE RENAISSANCE, 1250-1550 (5).
Spring quarter. Mr. MacKinney.
236. RECENT AND CONTEMPORARY EUROPEAN HISTORY
(5).
Winter quarter. Mr. Pegg.
249. CIVILIZATION IN THE AMERICAN COLONIES (5).
(1946-1947 and alternate years.) *Spring quarter.* Mr. Lefler.
250. THE AMERICAN REVOLUTION (5).
(1947-1948 and alternate years.) *Spring quarter.* Mr. Lefler.
251. THE FEDERAL PERIOD, 1783-1815 (5).
(1946-1947 and alternate years.) *Winter quarter.* Mr. Newsome.
252. THE MIDDLE PERIOD, 1815-1860 (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Newsome.
254. CIVIL WAR AND RECONSTRUCTION (5).
(1947-1948 and alternate years.) *Spring quarter.* Mr. Beale.
256. RECENT HISTORY OF THE UNITED STATES, 1901-1941
(5).
(1946-1947 and alternate years.) *Spring quarter.* Mr. Beale.
263. THE OLD SOUTH (5).
(1946-1947 and alternate years.) *Fall quarter.* Mr. Green.
264. THE NEW SOUTH (5).
(1947-1948 and alternate years.) *Fall quarter.* Mr. Green.
271. HISPANIC-AMERICAN HISTORY: The Colonial Period and
the Wars of Independence (5).
(1947-1948 and every third year.) *Spring quarter.* Mr. Pierson.
272. HISPANIC-AMERICAN HISTORY: DEVELOPMENT OF
NATIONALITY IN SOUTH AMERICA (5).
(1948-1949 and every third year.) *Spring quarter.* Mr. Pierson.
273. HISPANIC-AMERICAN HISTORY: HISPANIC NORTH
AMERICA AND THE CARIBBEAN COUNTRIES (5).
(1949-1950 and every third year.) *Spring quarter.* Mr. Pierson.
- 311a. MEDIEVAL HISTORY (3).
Three hours a week, spring quarter. Mr. MacKinney.
- 321a. MODERN EUROPEAN HISTORY (3).
Three hours a week, fall quarter. Mr. Godfrey.
- 321b. MODERN EUROPEAN HISTORY (3).
Three hours a week, winter quarter. Mr. Pegg.

- 331a. AMERICAN COLONIAL HISTORY (3).
Three hours a week, winter quarter. Mr. Lefler.
- 333ab. HISTORY OF THE UNITED STATES, 1783-1860 (3 each).
Three hours a week, fall and spring quarters. Mr. Newsome.
- 335abc. HISTORY OF THE SOUTH (3).
Three hours a week, fall, winter and spring quarters. Mr. Green.
- 337a. RECENT HISTORY OF THE UNITED STATES (3).
Three hours a week, fall quarter. Mr. Beale.
341. SEMINAR COURSE (5).

DEPARTMENT OF JOURNALISM

Professors: O. J. COFFIN, C. P. RUSSELL, J. ROY PARKER
Associate Professor: WALTER SPEARMAN
Assistant Professors: J. L. MORRISON, STUART W. SECHRIEST
Instructor: JOHN W. McREYNOLDS
Lecturer (advertising): LEON M. POLLANDER

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 courses in journalism, electives to complete hours for the A.B. degree.

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 editorial work of the student newspaper. Registration with department required.

53. NEWS WRITING I (5). Prerequisite for Journalism 54.

Fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Spearman, Morrison, Sechriest, McReynolds.

54. NEWS WRITING II (5). Prerequisite, Journalism 53 or the equivalent.

Fall, winter, and spring quarters. Laboratory fee, \$2.00. Messrs. Spearman, Morrison, Sechriest, McReynolds.

55. NEWS WRITING III (5). Prerequisite, Journalism 53 and 54 or equivalent.

Fall, winter, and spring quarters. Laboratory fee, \$2.00. Mr. Coffin.

56abc. FEATURE WRITING (3 each).

Three hours a week, fall and spring quarters. Mr. Coffin.

57. NEWS METHODS AND TREATMENTS (5).

Fall quarter. Laboratory fee, \$2.00. Messrs. Sechriest, Morrison.

58. EDITORIAL WRITING (3).

Three hours a week, fall, winter, and spring quarters. Mr. Coffin.

59. COUNTRY NEWSPAPER PRODUCTION (3).

Three hours a week, fall and spring quarters. Laboratory fee, \$2.00. Mr. Parker.

60. BOOK REVIEWING AND DRAMATIC CRITICISM FOR NEWSPAPERS (3).

Three hours a week, winter quarter. Mr. Spearman.

61. HISTORY OF JOURNALISM (3).

Three hours a week, fall quarter. Messrs. Russell, Spearman.

62. NEWSPAPER ADVERTISING I (5).

Fall, winter, and spring quarters. Laboratory fee, \$2.00. Mr. Pollander.

63. NEWSPAPER ADVERTISING II (3). Prerequisite, Journalism 62.

Three hours a week, 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.

72. CONTINUITY WRITING (5).

Winter and spring quarters. Laboratory fee, \$2.00. Mr. Morrison.

73. RADIO NEWS WRITING (5).

Fall and spring quarters. Laboratory fee, \$2.00. Mr. Morrison.

80. NEWS PHOTOGRAPHY (3). Instructor's permission necessary.

Three hours a week, fall and spring quarters. Laboratory fee, \$5.00. Mr. Sechriest.

DEPARTMENT OF LIBRARY SCIENCE

Professor: SUSAN G. AKERS

Instructor: DOROTHY CREWS

Courses for Undergraduates

These courses 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.

122. BOOK SELECTION FOR YOUNG PEOPLE (5).

Winter quarter.

123. BOOK SELECTION FOR CHILDREN (5).

Spring quarter.

143. SCHOOL LIBRARY ORGANIZATION AND ADMINISTRATION (5).

Spring quarter.

DEPARTMENT OF MATHEMATICAL STATISTICS

Professor: HAROLD HOTELLING

Visiting Professor: MAURICE S. BARTLETT

Associate Professors: HERBERT E. ROBBINS, *P. L. HSU, †WILLIAM G. MADOW

Visiting Associate Professor: RAJ CHANDRA BOSE

Instructor: EDWARD PAULSON

This department is devoted chiefly to graduate teaching and to research in the theory and methods of statistics, but qualified undergraduates are admitted to courses with numbers below 200. The minimum prerequisite is Advanced Calculus or similar mathematics higher than elementary integral calculus, and additional mathematics is valuable for statisticians and teachers of statistics.

The Institute of Statistics of the University of North Carolina includes the Department of Mathematical Statistics at Chapel Hill and the Department of Experimental Statistics at Raleigh. Schedules and transportation are arranged so that students can work in both departments. A separate Announcement of Graduate Work in Statistics gives additional information regarding the work of the Institute of Statistics, courses, requirements for degrees, and opportunities for statisticians.

101. 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.

102. STATISTICAL INFERENCE (5). Prerequisite, Statistics 101.

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.

103. LEAST SQUARES AND TIME SERIES (5). Prerequisites, Statistics 102 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.

113. SEQUENTIAL ANALYSIS (5). Prerequisite, Statistics 102.

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.

Winter quarter, 1947. Mr. Paulson.

113a. SEQUENTIAL ANALYSIS I (3). Corequisite, Statistics 102. Approximately equivalent to first half of 113 above.

Winter quarter, 1948. Mr. Madow.

113b. SEQUENTIAL ANALYSIS II (3). Continuation of 113a.

Spring quarter, 1948. Mr. Madow.

*Absent on leave, 1947-1948.

†Absent on leave until Jan. 1, 1948.

114. CORRELATION, CONTINGENCY, AND CHI TESTS (5). Prerequisite, Statistics 102.

Meaning of correlation. Multivariate distributions. Tests of simple, partial, and multiple correlations, with exact and approximate probabilities. Tests of independence of cross-classifications, and of goodness of fit.

Fall quarter, 1946, Mr. Hsu; fall quarter, 1947, Mr. Hotelling.

115. MULTIVARIATE ANALYSIS (5). Prerequisites, Statistics 114 and Mathematics 147 (Matrices).

Tests of hypotheses involving several correlated variates. Multivariate analysis of variance. Relations between sets of variates. Canonical correlations. Applications to factor analysis in psychology.

Winter quarter, 1947, Mr. Hsu; winter quarter, 1948, Messrs. Bose and Hotelling.

117. ANALYSIS OF VARIANCE AND COVARIANCE (3). Prerequisites, Statistics 101 and Mathematics 147 (Matrices). Corequisite, Statistics 102.

Winter quarter. Mr. Madow.

120. DESIGN OF EXPERIMENTS (5). Prerequisite, Statistics 102 and 117.

Spring quarter. Mr. Bose.

123. RANK ORDER STATISTICS AND NON-PARAMETRIC INFERENCE (5). Prerequisite, Statistics 102.

Rank correlation and other tests based on permutations of observations and independent of form of underlying distributions. Non-parametric tolerance limits.

Spring quarter. Mr. Paulson.

152. MATHEMATICAL ECONOMICS (5). Prerequisite, Mathematics 171 (Advanced Calculus) and 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.

Fall quarter. Mr. Hotelling.

216. ADVANCED MULTIVARIATE ANALYSIS (5). Prerequisite, Statistics 115.

Recent advances, including determinantal equations used in statistics, the problem of the rank of a set of observed variates, and some aspects of factor analysis.

Spring quarter. Mr. Hsu.

225. THEORY OF ESTIMATION AND TESTING HYPOTHESES (3).

A condensed form, given in 1946, of Statistics 226.

The equivalent of three hours a week, fall quarter. Mr. Bartlett.

226. THEORY OF ESTIMATION AND TESTING HYPOTHESES (5). Prerequisite, some work in mathematical statistics.

Maximum likelihood estimates. Fisher's information function. Consistent, efficient and sufficient statistics. Confidence intervals. The Neyman-Pearson theory. The power function of a test.

Fall quarter. Mr. _____.

230. ADVANCED PROBABILITY I (5). Prerequisite, Statistics 101 and preferably also Mathematics 176 (Complex Variables) and Mathematics 266 (Real Variables).

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 II (5). Prerequisite, Statistics 230 or its equivalent.

Continuation of Statistics 230. Probability distributions in spaces of an infinite number of dimensions. Strong convergence and ergodic theory.

Spring quarter. Mr. Robbins.

235. STOCHASTIC PROCESSES (3).

A condensed form, given in 1946, of Statistics 236.

Fall quarter, 1946, Mr. Bartlett; *spring quarter, 1948,* Mr. Madow.

236. STOCHASTIC PROCESSES (5). Prerequisite, Statistics 101. Corequisites, Mathematics 147 (Matrices) and Mathematics 176 (Complex Variables).

The theory of random processes, with applications to physics, biology, population growth, and the statistical analysis of time-series.

Winter quarter. Mr. Bartlett.

353. SEMINAR IN ADVANCED MATHEMATICAL STATISTICS (5). Prerequisites, a course requiring Statistics 102 as prerequisite; also a knowledge of matrices, finite differences, and complex variables.

361. SPECIAL PROBLEMS.

371. ADVANCED RESEARCH.

DEPARTMENT OF MATHEMATICS

Professors: ARCHIBALD HENDERSON, 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

Associate Professors: L. L. GARNER, A. T. BRAUER, Y. K. WONG

Instructors: JOHN O. REYNOLDS, CARL M. SMITH, MISS LILA PECK WALKER, B. M. DRUCKER, G. E. NICHOLSON, THOMAS L. REYNOLDS, JAMES W. WALKER, J. G. McALLISTER, JR., F. W. SAUNDERS, J. W. JENKINS, FRED B. WRIGHT, JR., GLEN B. HAYDON, J. B. LINKER, JR., WALTER J. STUART, JR., W. THOMAS GRAYBEAL, MISS HILDA MARIAN MOORE, MISS FRANCES O'KELLY, ANATOLE B. VOLKOV

Other Instructors: H. F. MUNCH (Department of Education), W. H. PEACOCK (Department of Physical Education)

Teaching Fellows: E. WEBB STACY, NATHANIEL MACON

Teaching Assistants: CHARLES L. MARKS, MISS ELIZABETH WEIL

For the degree of A.B. with major in Mathematics there are required:

I. A minimum of six (6) courses:

(a) Mathematics 31, 32, 33.

(b) Not less than three (3) courses beyond Mathematics 33, at least one of which must be taken from Mathematics 104, 121, 131, 141, 147, 151, 161, 171, 181.

NOTE: A Mathematics major is expected to take at least one Mathematics course each quarter after electing his major until such time as he shall have completed his requirements for the degree.

II. Six (6) courses from the departments of Botany, Chemistry, Geology, Philosophy, Physics, Psychology, Zoology.

III. Six (6) courses outside the Division of Natural Sciences.

Those students who plan to teach in the public schools should read the statement on page 205.

Courses for Undergraduates

A. PLANE GEOMETRY (0).

Five hours a week, every quarter. Messrs. Winsor and Peacock.

R. INTERMEDIATE ALGEBRA (0).

Five hours a week, every quarter. Staff.

7X. COLLEGE ALGEBRA (5).

Five hours a week, every quarter. Staff.

7. COLLEGE ALGEBRA (5).

Every quarter. Staff.

8. PLANE TRIGONOMETRY (5).

Every quarter. Staff.

9. TRIGONOMETRY AND MATHEMATICS OF FINANCE (5).

Every quarter. Staff.

13. SPHERICAL TRIGONOMETRY WITH APPLICATIONS TO SURVEYING AND NAVIGATION (3).

Three hours a week, fall quarter. Mr. Hickerson.

31. PLANE ANALYTIC GEOMETRY (5). Prerequisite, Mathematics 7 and 8.

Every quarter. Messrs. Hill, Hoyle, Garner, Wong, Miss Walker.

32. DIFFERENTIAL CALCULUS (5). Prerequisite, Mathematics 31.

Every quarter. Messrs. Henderson, Browne, Hoyle, Cameron, Drucker.

33. INTEGRAL CALCULUS (5). Prerequisite, Mathematics 32.

Winter and spring quarters. Messrs. Hobbs, Winsor, Hoyle.

41. MECHANICAL DRAWING (3).

Six hours a week, fall quarter. Laboratory fee, \$1.00. Mr. Trimble.

42. DESCRIPTIVE GEOMETRY (3).

Lectures and laboratory, six hours a week, winter quarter. Laboratory fee, \$1.00. Mr. Trimble.

51. PLANE SURVEYING (5). Prerequisite, Mathematics 7 and 8.

Four lecture and two field hours a week, fall or spring quarter. Laboratory fee, \$4.00. Mr. Trimble.

52. TOPOGRAPHIC AND ROUTE SURVEYING (5). Prerequisite, Mathematics 51.

Three lecture and four field hours a week, fall or spring quarter. Laboratory fee, \$4.00. Mr. Trimble.

62. INTRODUCTORY STATISTICS (5). Prerequisite, Mathematics 7 and 8 or 9.

A first course in statistics treating such topics as graphical representation of data, averages of central tendency, dispersion, frequency distributions, skewness, simple correlation, etc. *Fall quarter.* Mr. Hill.

Courses for Graduates and Advanced Undergraduates

103. COLLEGE GEOMETRY (5). Prerequisite, Mathematics 32.

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. *Fall quarter.* Mr. Winsor.

104. INTRODUCTION TO MODERN ALGEBRA (5). Prerequisite, Mathematics 33.

Introduction to integral domains, fields, groups, vector spaces, theory of linear dependence, systems of linear equations, linear transformations, and matrices. *Winter quarter.* Mr. Cameron.

105. HISTORY OF MATHEMATICS (5). Prerequisite, Mathematics 33.

(1947-1948 and alternate years.)

Spring quarter. Mr. Cameron.

110. CALCULUS OF FINITE DIFFERENCES (3). Prerequisite, Mathematics 33.

Differencing functions, summation of series, relations among operators, interpolation formulas, Bernoulli's and Euler's polynomials, solution of difference equations. *Three hours a week, winter 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.

Spring quarter. Mr. Hill.

121. THEORETICAL AND APPLIED MECHANICS: STATICS (5). Prerequisite, Mathematics 32.

Force systems; friction; centroids; moment of inertia. This course and its sequels, 122 and 123, are basic requirements in engineering and architecture.

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). Prerequisite, Mathematics 121.

Stresses and strains in structural materials; riveted and welded joints; torsion and bending; stresses in beams and columns; deflection of beams; special topics.

Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$4.00. Messrs. Hickerson and Trimble.

124. HYDRAULICS (5). Prerequisite, Mathematics 121-123.

Winter quarter. Mr. Trimble.

125. STRUCTURAL FRAMEWORKS (5). Prerequisite, Mathematics 121-123.

Design of reinforced concrete beams and slabs; dams, tanks, and retaining walls; analyses of continuous beams, rigid frames, and arches by fixation factors and moment distribution.

Winter quarter. Mr. Hickerson.

127. TRANSPORTATION SYSTEMS (3).

Highway systems and highway design and construction, traffic surveys and traffic control, airports, railroads, and rapid transit.

Three hours a week, winter quarter. Mr. Hickerson.

131. THEORY OF EQUATIONS (5). Prerequisite, Mathematics 33.

A general study of the fundamental properties of algebraic equations; Sturm's and Budan's theorems; determinants and systems of linear equations; symmetric functions; discriminants and resultants.

Winter quarter. Mr. Henderson.

141. DIFFERENTIAL EQUATIONS (5). Prerequisite, Mathematics 33.

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 quarter. Messrs. Henderson and Linker.

147. INTRODUCTION TO THE THEORY OF DETERMINANTS AND MATRICES (3). Prerequisite, Mathematics 33.

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.

Three hours a week, fall quarter. Mr. Browne.

151. ANALYTIC PROJECTIVE GEOMETRY I (5). Prerequisite, Mathematics 33.

Projective geometry of one dimensional forms, treated analytically, with special emphasis on applications to theory of equations. *Fall 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.

(1947-1948 and alternate years.) *Winter 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.

Spring quarter. Mr. Browne.

171. ADVANCED CALCULUS I (5). Prerequisite, Mathematics 33.

Limits, continuity, infinitesimals, differentials, power series, partial and implicit differentiation, definite and line integrals.

Winter quarter. Mr. Mackie.

172. ADVANCED CALCULUS II (5). Prerequisite, Mathematics 171.

Gamma and Beta Functions; Legendre Polynomials; Bessel Functions; Fourier Series; Laplace's Equation; Harmonic Functions; Potential.

Spring quarter. Mr. Hobbs.

176. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE I (3). Prerequisite, Mathematics 33.

Differentiation and integration of a function of a complex variable, line integrals, mapping of elementary functions, linear fractional transformations.

Three hours a week, fall quarter. Mr. Mackie.

181. ELEMENTARY THEORY OF NUMBERS (5). No prerequisite.

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 ANALYSIS (5). Prerequisite, Mathematics 121, 141, and 161 or equivalent.

Vector algebra applied to geometry and physics. Students taking this course should be familiar with ordinary differential equations and should have some knowledge of analytic geometry of three dimensions.

Fall quarter. Mr. Hobbs.

192. DYNAMICS (5). Prerequisite, Mathematics 191.
Equations of motion; determination of orbits; relative motion; generalized coordinates; Hamilton's principle; gyroscopic motion.
(1947-1948 and alternate years.) *Winter quarter*. Mr. Hobbs.

193. PARTIAL DIFFERENTIAL EQUATIONS (5). Prerequisite, Mathematics 141.

A study of some of the partial differential equations of physics and boundary problems.

(1947-1948 and alternate years.) *Spring quarter*. Mr. Hobbs.

Courses for Graduates

207. ADVANCED THEORY OF FUNCTIONS OF A COMPLEX VARIABLE (3). Prerequisite, Mathematics 176.

Topics cover types of series convergence; properties of analytic functions; calculus of residues; integral functions; conformal representation, and elliptic functions.

Three hours a week, winter quarter. Mr. Wong.

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 postulational school.

(1947-1948 and alternate years.) *Winter quarter*. Mr. Henderson.

232. ALGEBRAIC THEORY OF NUMBERS I (5). Prerequisite, 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.

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.

Spring quarter. 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.

(1946-1947 and alternate years.) *Winter 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.

(1947-1948 and alternate years.) *Fall 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.

(1947-1948 and alternate years.)

Winter 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.

(1946-1947 and alternate years.) *Winter quarter*. Mr. Browne.

251. ELEMENTS OF NON-EUCLIDEAN GEOMETRY (5).

Subject developed historically and evolutionally. Contributions of Saccheri, Bolyai, Lobachewsky, Riemann, Cayley, and Klein are analyzed and compared.

(1947-1948 and alternate years.) *Fall quarter*. Mr. Henderson.

261. DIFFERENTIAL GEOMETRY (5). Prerequisite, Mathematics 141 and 161.

A study of the metric differential properties of curves, surfaces, and curves on surfaces by means of differential equations.

(1946-1947 and alternate years.) *Spring quarter*. Mr. Lasley.

266. THEORY OF FUNCTIONS OF REAL VARIABLES (5).

Prerequisite, Mathematics 131 and 171.

The real number system; point sets; uniform convergence; differentiation; Riemann integral; Stieltjes integral; Lebesgue integral; existence theorems for implicit functions and differential equations.

Spring quarter. Mr. Wong.

271. THEORY OF RELATIVITY (5). Prerequisite, Mathematics 121 and 141.

The essential features of both special and general relativity are studied, with accent on the Voigt-Lorentz transformation and the three crucial tests of the theory.

(1947-1948 and alternate years.) *Fall quarter*. Mr. Henderson.

272. TENSOR ANALYSIS (5). Prerequisite, Mathematics 141.

A study of transformations of coordinates and tensor variants, with especial attention to applications to differential geometry and relativity theory.

(1947-1948 and alternate years.) *Winter quarter*. Mr. Hoyle.

273. ADVANCED RELATIVITY THEORY (5). Prerequisite, Mathematics 271 and 272.

General relativity and gravitation studied by tensorial technic. Geodesics, curvature in space-time, cosmological speculations regarding the nature of the universe are considered.

(1947-1948 and alternate years.) *Spring quarter*. Mr. Henderson.

280. CALCULUS OF VARIATIONS (5). Prerequisite, Mathematics 141 and 171.

The determination of necessary and sufficient conditions for functions which minimize certain definite integrals.

(1946-1947 and alternate years.) *Spring quarter*. Mr. Mackie.

281. GENERAL TOPOLOGY (5).

Topological space; homeomorphism of sets; Frechet space; axioms of countability; normal classes; separable metric spaces, and complete spaces.

(1947-1948 and alternate years.) *Fall quarter*. Mr. Wong.

291. THE THEORY OF FINITE GROUPS (5). Prerequisite, Mathematics 131.

Deals primarily with the theory of substitutions, especially as applied to the algebraic equation. Numerous applications in algebra and geometry.

(1947-1948 and alternate years.) *Spring quarter.* Mr. Henderson.

SEMINARS AND THESES (5).

351, Mr. Henderson; 352, Mr. Hickerson; 356, Mr. Lasley; 361, Mr. Hobbs; 366, Mr. Browne; 371, Mr. Winsor; 372, Mr. Hoyle; 376, Mr. Mackie; 377, Mr. Hill; 381, Mr. Brauer; 382, Mr. Cameron, 386, Mr. Wong.

DEPARTMENT OF MUSIC

Professors: GLEN HAYDON, EARL SLOCUM, J. P. SCHINHAN

Associate Professors: *B. F. SWALIN, PAUL YOUNG

Assistant Professor: WILLIAM S. NEWMAN

Instructors: EDGAR ALDEN, MARGARET LEINBACH KOLB, GWYNN McPEEK

Assistants: DOROTHY ALDEN, DAVID BRANDT, WILLIAM COLLINS, VIRGINIA CALDWELL CREIGHTON, MARY LOUISE EMERY, WILLIS GATES, VIRGINIA HARE, HUBERT HENDERSON, CAROLYN LAMBETH LIVINGSTON, HERBERT LIVINGSTON, WILTON MASON, EMILY PORTER, EUGENE C. STRYKER, EDGAR VOM LEHN

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 246-248.

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 interested in this degree should apply to the Department of Music for particulars.

* On leave.

Courses for Undergraduates

1. NOTATION, SIGHT-SINGING, AND DICTATION (5).

Ten laboratory hours a week, fall quarter. Messrs. Young, Gates; Miss Porter, Mrs. Kolb.

1-x. SIGHT-SINGING (2½).

Five laboratory hours a week, any quarter. Messrs. Young, Gates; Mrs. Kolb, Miss Porter.

1-y. DICTATION (2½).

Five laboratory hours a week, any quarter. Messrs. Young, Gates; Miss Porter, Mrs. Kolb.

14-15. HARMONY (10). Prerequisite or corequisite, Music 1.

Five hours a week, winter and spring quarters. Messrs. Haydon, Gates.

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. Messrs. Young, Gates.

*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. Messrs. Newman, Young.

44-45. ADVANCED HARMONY (10). Prerequisite, Music 1, Music 14-15. Sophomore requirement for those who will have music as a major.

Five hours a week, fall and winter quarters. Mr. Schinhan.

47, 48. THE HISTORY OF MUSIC (5 each). Requirement for those who will have music as a major.

47: Early beginnings of music to the death of Bach and Handel. *Spring quarter.* 48: From the origins of the Classical Era up to the present day. *Winter quarter.* Mr. Newman.

*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 17th and 18th centuries. No prerequisite.

Fall quarter. Fee, \$1.00. Messrs. Newman, 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 19th and 20th centuries. No prerequisite.

Winter quarter. Fee, \$1.00. Messrs. Newman, Alden.

* Will not be accepted as part of a major.

*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. Messrs. Newman, Alden.

61. MODAL COUNTERPOINT IN THE 16TH CENTURY STYLE (5). Prerequisite, Music 14-15.

Study and practice of the contrapuntal technique of the 16th century; the writing of simple motets.

Spring quarter. Mr. Schinhan.

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).

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.

†121, 122, 123. STUDIES IN THE HISTORY OF MUSIC (3 each). Prerequisite, Music 24, 25, and 44-45.

A critical study of certain composers, style species or style periods, such as Bach, the sonata, or the music of the 16th Century.

Three hours a week, fall, winter, and spring quarters. Mr. Newman.

161-162. FREE COUNTERPOINT, CANON, AND FUGUE (6). Prerequisite, Music 61 and 64.

Three hours a week, fall and winter quarters. Mr. Slocum.

†174-175. ANALYSIS AND COMPOSITION IN THE LARGER FORMS (6). Prerequisite, Music 74.

Three hours a week, fall and winter quarters. Mr. Schinhan.

* Will not be accepted as part of a major.

† Will be given as the demand warrants.

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. Mr. Haydon.

*204-205. INTRODUCTION TO COMPARATIVE MUSICOLOGY (6).

Three hours a week, fall and winter quarters. Mr. Schinhan.

301, 302, 303. SEMINAR: MUSICOLOGY (9).

Three 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 Teacher Training Program will be given on the basis of 1½ quarter hours per quarter. For those whose major is not music a total credit 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 Head 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 those in advanced applied music courses must take part in recitals as prescribed by the Department.

* Will be given as the demand warrants.

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 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 practice a week, every quarter. Messrs. Schinhan, Brandt.

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 1 or 2 quarter hours respectively for one or two lessons and six or twelve hours of practice a week through 3 quarters. Messrs. Schinhan, Brandt.

21A. SECOND YEAR ORGAN (1 or 2). Prerequisite, Music 1A. Value, hours, and fee as in 1A. Mr. Schinhan.

51A. THIRD YEAR ORGAN (2 or 4). Prerequisite, Music 21A.

Value, 2 or 4 quarter hours respectively for one or two lessons and six or twelve hours practice a week through three quarters. Mr. Schinhan.

81A. FOURTH YEAR ORGAN (2 or 4). Prerequisite, Music 51A.

Value, hours, and fee as in third year organ. Mr. Schinhan.

91A. FIFTH YEAR ORGAN (9 hours). Prerequisite, Music 81A. Required of candidates for the B.M. Degree.

Similar numbering and description with regard to value, hours, fees, and prerequisite work apply to each of the courses B, C, D, and E.

B. PIANO. Messrs. Schinhan, Newman, Mason, Livingston, Miss Emery, Mrs. Creighton, Miss Hare, Mrs. Kolb, Mrs. Livingston.

C. VOICE. Messrs. Young, Collins, McPeck, Stryker, vom Lehn.

D. VIOLIN OR OTHER STRINGED INSTRUMENT. Mrs. Alden; Messrs. Alden, Gates; Miss Porter.

E. FLUTE OR OTHER BAND OR ORCHESTRAL INSTRUMENT. Messrs. Slocum, Henderson.

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. Mr. Slocum.

51F. THIRD YEAR BAND (2 a year).

A minimum of two hours a week through three quarters. Mr. Slocum.

81F. FOURTH YEAR BAND (2 a year).

Hours and value as in the preceding course. Mr. Slocum.

Similar numbering, prerequisite work, value, and hours apply to each of the following courses in applied music:

G. ORCHESTRA. Mr. Slocum.

H. GLEE CLUB. Mr. Young.

I. PIANO ENSEMBLE OR OTHER INSTRUMENTAL ENSEMBLE.
Staff.

DEPARTMENT OF NAVAL SCIENCE

Professor: D. W. LOOMIS, *Captain, USN*

Associate Professor: A. G. SCHNABLE, *Commander, USN*

Assistant Professors: B. L. BENTON, *Lt. Cmdr., USN*, WILLIAM J.

MANNING, *Lt. Cmdr., USN*, J. F. TYNAN, *Lt. Cmdr., SC, USN*,

R. E. PATTON, *Lt. USNR*, LAWRENCE W. SMITH JR., *Captain, USMC*, *R. A. WELLS, *Lt., USN*

General Statement

The primary object of the course in Naval Science is to provide systematic instruction and training which will qualify graduates of the course for appointment as Ensigns, U. S. Navy, Second Lieutenants, U. S. Marine Corps, Ensigns, U. S. Naval Reserve, and Second Lieutenants, U. S. Marine Corps Reserve.

Entrance Requirements

Under Public Law 729 governing the Naval Reserve Officers' Training Corps and the Naval Aviation College program, individuals are selected from applicants by means of a nation-wide aptitude test, following which selection the successful applicants report to an Office of Naval Officer Procurement for physical examination and for a final interview before a State Selection Board. Application blanks for entry into either of the above programs are mailed each year to universities, colleges, and high schools throughout the United States. In the interest

* Detached, December 23, 1946.

of brevity, further information relative to the NACP program will be omitted here. Full information relative to the NACP program may be obtained from the Professor of Naval Science.

Applicants for the N.R.O.T.C. program must be not less than 17 years nor more than 21 years of age on July 1 of the year in which enrollment in the Corps is desired. Applicants must satisfy the entrance requirements of the University, and obtain their own admission. Entrance into the Corps is limited to the fall quarter of each year.

Students entering the program are of two classifications, Regular and Contract students. Regular students enter into a contract with the Secretary of the Navy to:

1. Continue training until the completion of such training as may be prescribed, leading to a commission in the United States Navy or United States Marine Corps, if offered.

2. Serve as an officer on active duty for a period of not less than fifteen months, and upon termination of such active duty to accept a commission in the United States Naval Reserve or United States Marine Corps Reserve.

3. Remain unmarried until commissioned.

Regular students are required to take a training cruise or training period of six to eight weeks duration during the summer months following their freshman, sophomore, and junior years. All expenses, including medical services, subsistence, and transportation to and from student's home to the port of embarkation are paid by the Navy.

Regular students receive \$600 annually, and all tuition, books, and fees are paid by the Navy for four years.

Contract Students

Contract students enter into a contract with the Secretary of the Navy, whereby they agree to:

1. Continue training in the Naval Reserve Officers' Training Corps as a contract student until the completion of such training as may be prescribed, leading to a commission in the U. S. Naval or U. S. Marine Corps Reserve.

2. Remain unmarried until commissioned.

Contract students are required to make only one cruise during the four years, normally between the junior and senior years.

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 thirty-six quarter hours in the Naval Science Department. 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 college physics and mathematics courses through Trigonometry. Every student must achieve proficiency in written and oral expression in accordance with the standards of proficiency set by the University. Four years of physical training must be taken by every student. Each student shall take such instruction in swimming as to qualify as a First Class Swimmer as described in the Physical Fitness Manual of the

U. S. Navy. 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. All subjects in the Naval Science Department are credited by the University as divisional electives toward a degree. These curricula are outlined below:

A. LINE CURRICULA:

1. First year:
NS—(101)—Introduction to Naval Science.
NS—(102)—Communications and Tactics.
2. Second year:
NS—(201)—Ordnance and Fire Control.
NS—(202)—Fire Control and Electronics.
3. Third year:
NS—(301)—Piloting and Navigation.
NS—(302)—Advance Navigation and Tactics.
4. Fourth year:
NS—(401)—Naval Engineering.
NS—(402)—Internal Combustion Engines,
Ship Construction and Stability.

B. SUPPLY CORPS:

1. First year:
NS—(101)—Introduction to Naval Science.
NS—(102)—Communications and Tactics.
2. Second year:
NS—(201)—Ordnance and Fire Control.
NS—(202)—Fire Control and Electronics.
3. Third year:
NS—(301)—Piloting and Navigation.
NS—(302)—Advance Navigation and Tactics.
4. Fourth year:
NS—(401S)—Naval Supply.
NS—(402S)—Naval Supply.

C. MARINE CORPS:

1. First year:
NS—(101)—Introduction to Naval Science.
NS—(102)—Communications and Tactics.
2. Second year:
NS—(201)—Ordnance and Fire Control.
NS—(202)—Fire Control and Electronics.
3. Third year:
NS—(301)—Piloting and Navigation.
NS—(302N)—Military History.
Principles of War and Basic Military Training.
4. Fourth year:
NS—(401M)—Tactics and Techniques.
NS—(402M)—Amphibious Operation.

DEPARTMENT OF PATHOLOGY

Professors: KENNETH M. BRINKHOUS, JAMES BELL BULLITT
 Instructors: *WILLIAM S. RANDALL, *Director of Watts Hospital Laboratories*, †JUNE U. GUNTER, *Director of Watts Hospital Laboratories*, JOHN B. GRAHAM
 Fellow: ‡RICHARD A. DURHAM, §MARGARET C. SWANTON
 Senior Technician: MITTIE PICKARD
 Student Assistant: JOYCE HINSON
 Secretary: WILLA H. STEVENS
 Research Technician: JEFFRY B. CORINGTON

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. Material to be examined consists of preserved specimens and fresh specimens from Watts Hospital (Durham). Opportunity is also afforded for the study of patients with special reference to the laboratory examinations indicated and for the correlation of the findings.

One lecture and two laboratory hours, last five weeks, winter quarter; three lecture and four laboratory hours, spring quarter. Dr. Graham and staff.

52. CLINICAL PATHOLOGY (4). Prerequisite, 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.

Dr. Brinkhous.

161abc. PATHOLOGY (18). Prerequisite, Anatomy, Histology, Physiology, Biochemistry.

Three lecture and six laboratory hours a week, first quarter, four lecture and eight laboratory hours a week, second quarter, and two lecture and four laboratory hours a week, third quarter in second year. Dr. Brinkhous and staff.

Elective Courses

NOTE: *Hours and credits for the following courses to be arranged.*

162 (I). SURGICAL PATHOLOGY. Prerequisite, Pathology 161. A detailed study of surgical material, with special reference to tumors.

Dr. Brinkhous.

162 (II). EXPERIMENTAL PATHOLOGY. Prerequisite, Physiology and Biochemistry.

Production of various inflammatory lesions and other pathological processes (edema, hemorrhage, ischemia, jaundice, urinary obstruction, etc.), and study of their development.

Dr. Brinkhous.

* Resigned Feb. 15, 1947.

† Appointment effective March, 1947.

‡ Appointment completed June, 1947.

§ Appointment effective July, 1947.

162 (III). RESEARCH IN PATHOLOGY. Prerequisite, Physiology and Biochemistry.
Dr. Brinkhous.

DEPARTMENT OF PHARMACOLOGY

Kenan Research Professor: WILLIAM DEBERNIERE MACNIDER
Professor: _____.

Associate Professor: FRED WILSON ELLIS (Acting Head of Department)

Research Assistant: MARIAN STEVENS (Mrs.)

Technical Assistant: G. W. R. DEROSA

The Department of Pharmacology offers graduate work which leads to the degree of Master of Science with a major in pharmacology. Prospective candidates for a master's degree in pharmacology must have a thorough undergraduate training in zoology, chemistry, and physics and should have a reading knowledge of French or German. In addition to the major work in pharmacology, the candidate for a master's degree must take biological chemistry, physiology, and neuroanatomy in order to satisfy the minor requirements. A minimum of two years will be necessary in order to complete this program of study.

Course for Undergraduates

55. PHARMACOLOGY (4½). Prerequisite, Physiology 51, Material Medica 68-69.

This course is intended primarily for pharmacy students.

Three lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Messrs. _____, Ellis.

Courses for Graduates and Advanced Undergraduates

161. TOXICOLOGY (5). Prerequisites, Chemistry 31, 41, 42, 61, 62, 63.

This course is designed to acquaint the student with the origin, properties and actions of the common poisons, including heavy metals and plant substances. Attention is paid to treatment and antidotes. Lecture material is supplemented by laboratory work in detection and isolation of drugs and poisons in medicines, urine, food, organs, etc.

Two lecture and six laboratory hours a week, first, second, or third quarter. Laboratory fee, \$10.00. Messrs. _____, Ellis, MacNider.

162. BIOASSAY (2½). Prerequisite, Pharmacology 55.

Consideration is given those substances listed in the United States Pharmacopoeia which require standardization by biologic methods.

One lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Messrs. _____, Ellis.

Courses for Graduates

171ab. PHARMACOLOGY (11).

The lectures and laboratory cover the more important drugs with predominant systematic actions and include the fundamental bases and mechanisms of clinical actions, uses, doses, diagnosis and treatment of poisoning, and biological and clinical correlations.

Five lecture and three laboratory hours a week, first quarter; three lecture and three laboratory hours a week, second quarter. Laboratory fee for non-medical students, \$15.00 a quarter. Messrs. ———, Ellis. See catalogue of the Graduate School.

172. ADVANCED PHARMACOLOGY.

This course is open to those with satisfactory qualifications and is designed to offer special training in technical procedures commonly employed in pharmacological investigations.

Hours by arrangement. Messrs. ———, Ellis.

201. CHEMOTHERAPY (3). Prerequisite, Pharmacology 171ab or its equivalent.

This course presents a systematic pharmacologic study of chemotherapeutic agents, such as sulfonamides, antibiotics, etc. Effective drugs are considered from a chemical viewpoint and a correlation drawn between structure and therapeutic efficiency.

Three lectures a week, spring quarter. Messrs. ———, Ellis.

202. POTENTIOMETRIC PHARMACOLOGY (2). Prerequisite, Pharmacology 171ab or its equivalent.

A lecture course dealing with the mechanisms of drug action in greater detail than in the regular course in Pharmacology. Specifically, the fundamental effects of drugs are correlated with the structure and physiology of the individual cells of the organs influenced by the drugs.

Two lecture hours a week, spring quarter. Mr. Ellis.

301, 302, 303. RESEARCH IN PHARMACOLOGY (5 each).

Equivalent of five hours a week, throughout the year. Laboratory fee, \$10.00 each quarter. Messrs. ———, Ellis, MacNider.

DEPARTMENT OF PHILOSOPHY

Professors: S. A. EMERY, HELMUT KUHN

Associate Professor: L. O. KATTSOFF

Assistant Professor: M. E. LEAN

Instructor: WARREN ASHBY

Teaching Fellows: A. L. WHEELER, A. D. RIPLEY

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 of courses in consultation with two advisers (one chosen by him, one appointed by the department). It is suggested that students looking towards a major in philosophy avail themselves of the introductory courses covering both systematic philosophy (21 and 22, or 41) and the history of philosophy (42, or 56, 57, 58).

In outlining programs the advisers will recognize as important the distinction between prospective graduate students and others. Before the end of the winter quarter of his junior year the student's program will be submitted to the departmental staff for information and discussion.

Courses for Undergraduates

21. INTRODUCTORY LOGIC (5).
Each quarter. Staff.
22. INTRODUCTORY ETHICS (5).
Each quarter. Staff.
41. THE FIELDS OF PHILOSOPHY: A SYSTEMATIC INTRODUCTION (5).
Each quarter. Staff.
42. THE DEVELOPMENT OF PHILOSOPHY: AN HISTORICAL INTRODUCTION (5).
Each quarter. Staff.
56. THE DEVELOPMENT OF ANCIENT PHILOSOPHY (5).
Winter quarter. Mr. Kuhn.
57. THE DEVELOPMENT OF CHRISTIAN PHILOSOPHY (5).
Spring quarter. Mr. Kuhn.
58. THE DEVELOPMENT OF MODERN PHILOSOPHY (5).
Spring quarter. Mr. Emery.
63. CONTEMPORARY PHILOSOPHY (5).
Fall quarter. Mr. Emery.
66. LOGIC (5). No student may receive credit for both Philosophy 21 and Philosophy 66.
Winter quarter. Mr. Emery.
71. BASIC CONCEPTS OF THE NATURAL SCIENCES (5).
Fall quarter. Mr. Kattsoff.
76. AESTHETICS (5).
Spring quarter. Mr. _____.
81. PHILOSOPHICAL IDEAS IN CONTEMPORARY LITERATURE (5).
Fall quarter. Mr. Kuhn.
86. ETHICS (5). No student may receive credit for both Philosophy 22 and Philosophy 86.
Spring quarter. Mr. Emery.
91. PHILOSOPHY OF THE STATE (5).
Winter quarter. Mr. Emery.
96. PHILOSOPHY OF RELIGION (5).
Spring quarter. Mr. _____.
- 100a, 100b, 100c. COURSES FOR HONORS (5 each).
See the Programs for Honors Work, in the various Divisions.

Courses for Graduates and Advanced Undergraduates

121. KANT (5). Prerequisite, Philosophy 58 or special permission.
Fall quarter. Mr. Kuhn.

122. PLATO AND ARISTOTLE (5). Prerequisite, Philosophy 56 or special permission.

Winter quarter. Mr. Kuhn.

123. CONTINENTAL RATIONALISM (5). Prerequisite, Philosophy 58 or special permission.

Fall quarter. Mr. Kattsoff.

124. PHILOSOPHY OF THE NINETEENTH CENTURY (5). Prerequisite, Philosophy 58 or special permission.

Winter quarter. Mr. _____.

125. ENGLISH PHILOSOPHICAL THOUGHT SINCE 1750 (5).

Spring quarter. Mr. _____.

126. CONTEMPORARY AMERICAN PHILOSOPHY (5). Prerequisite, Philosophy 21 and 22, or 41, or 58, or special permission.

Winter quarter. Mr. Kattsoff.

127. ST. AUGUSTINE AND THOMAS AQUINAS (5). Prerequisite, Philosophy 56 or 57 or 122 or special permission.

Spring quarter. Mr. Kuhn.

128. PROBLEMS IN CONTEMPORARY PHILOSOPHY (5).

Spring quarter. Mr. Emery.

134. INTRODUCTION TO SYMBOLIC LOGIC (5).

Fall quarter. Mr. Kattsoff.

135. ADVANCED TOPICS IN LOGIC (5). Prerequisites, Philosophy 21 or 66, and 134.

Selected topics in both classical and symbolic logic.

Winter quarter. Mr. _____.

141. PHILOSOPHY OF MATHEMATICS (5). Prerequisite, a fair degree of mathematical maturity.

Spring quarter. Mr. Kattsoff.

142. BASIC CONCEPTS OF THE SOCIAL SCIENCES (5). Prerequisite, two courses in philosophy, psychology, or sociology.

Spring quarter. Mr. Kattsoff.

182. SOCIAL ETHICS (5). Prerequisite, two courses in philosophy, psychology, or sociology, or special permission.

Fall quarter. Mr. _____.

Courses for Graduates

301, 302, 303. SEMINARS IN PHILOSOPHY (3 each).

Topics will be decided in personal conference.

Three hours a week, each quarter. Staff.

311. SPECIAL READINGS (5).

Each quarter. Staff.

DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

Director: R. A. FETZER

Professor: O. K. CORNWELL

Associate Professors: R. B. LAWSON, R. E. JAMERSON, G. E. SHEPARD

Assistant Professors: C. E. MULLIS, W. H. PEACOCK, H. C. HOUSE, JR., MRS. J. G. BEARD, E. M. ALLEN, W. W. RABB, MRS. RUTH WHITE FINK

Instructors: BUNN HEARN, J. F. KENFIELD, P. H. QUINLAN, M. D. RANSOM, R. A. WHITE, M. Z. RONMAN, J. M. REED, J. R. MURPHY, J. P. GILL, C. C. LITTLE, C. P. ERICKSON, R. H. STRAYHORN, MARY FRANCES KELLAM, FRANCIS BURNS, NANCY BROCK

Graduate Assistants: CELESTE ULRICH, ELOISE NEWELL, JULIAN SMITH, FRANK MURRAY, WALTER COTTINGHAM

The purpose of the work can be stated as follows: (1) To furnish to each student all the information about himself possible from a careful physical examination. (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. For teacher certification both men and women will take Education 41, 71, 99, 63, 64 and one elective. Those who choose a minor will select twenty hours of work from Physical Education 75, 76, 77, 78, 86 and Education 63.

Courses for Undergraduates

HYGIENE 11. PERSONAL HYGIENE (3). Required of freshmen. *Three hours a week, fall, winter, or spring quarter.* Messrs. Mullis, Allen, House, Rabb.

HYGIENE 11W. PERSONAL HYGIENE (3). Required of freshmen. *Three hours a week, fall, winter, or spring quarter.* Mrs. Beard.

HYGIENE 12W. HYGIENE (3). For women. *Three hours a week, fall, winter, or spring quarter.* Mrs. Beard.

1, 2, 3. PHYSICAL EDUCATION (3). Required of freshmen men. *Three hours a week, fall, winter, and spring quarters.* Staff.

4, 5, 6. PHYSICAL EDUCATION (3). Required of sophomore men. *Three hours a week, fall, winter, and spring quarters.* Staff.

1W, 2W, 3W. PHYSICAL EDUCATION (3). Required of freshmen women.

Two hours a week, fall, winter, and spring quarters. Staff.

4W, 5W, 6W. PHYSICAL EDUCATION (3). Required of sophomore women.

Two hours a week, fall, winter, and spring quarters. Staff.

7W, 8W, 9W. PHYSICAL EDUCATION (3). Required of junior women.

Two hours a week, fall, winter, and spring quarters. Staff.

For Women Who Are Majoring in Physical Education:

54. PHYSICAL EDUCATION (3).

This course includes the fundamental skills, techniques, and teaching methods in field hockey, fieldball, soccer, and speedball.

Three hours a week, fall quarter. Miss Burns.

55. PHYSICAL EDUCATION (5).

This course includes 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.

Five hours a week, winter quarter. Mrs. Fink, Miss Kellam.

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.

Three hours a week, spring quarter. Miss Burns.

57. PHYSICAL EDUCATION (3).

This course includes the fundamental skills, techniques, and teaching methods in archery, swimming, and tennis.

Three hours a week, fall quarter. Misses Kellam, Burns.

58. PHYSICAL EDUCATION (5).

This course includes the methods and materials in the teaching of modern, folk, and tap dance.

Winter quarter. Miss Brock.

59. PHYSICAL EDUCATION (5).

This course includes the fundamental skills, techniques, and teaching methods in badminton, fencing, life saving, and softball.

Spring quarter. Misses Burns, Kellam.

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.

Three hours a week, fall quarter. Messrs. Scott, Kenfield.

66. PHYSICAL EDUCATION (3).

This course includes technics and skills in the coaching of football; technics and skills in teaching handball.

Three hours a week, winter quarter. Messrs. House, Mullis.

67. PHYSICAL EDUCATION (5).

Methods, materials, and practice in tumbling, boxing, and wrestling for teachers in public schools and colleges.

Five hours a week, spring quarter. Messrs. Rabb, Ronman, Peacock.

68. PHYSICAL EDUCATION (3).

This course includes theory, technics, and skills in the coaching of baseball and track.

Three hours a week, fall quarter. Messrs. House, Ranson.

69. PHYSICAL EDUCATION (5).

Methods, materials, and practice in Rhythmics and Recreational games for teachers in public schools and colleges.

Winter quarter. Mr. Shepard.

70. PHYSICAL EDUCATION (5).

Methods, materials, and practice in swimming, speedball, soccer, volleyball.

Spring quarter. Messrs. Allen, Jamerson.

For All Undergraduate Majors in Physical Education:

75. ANATOMY (5).

This course is designed to teach the fundamentals of gross anatomy of the human body.

Fall quarter. _____.

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 quarter.* _____.

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 quarter. 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 every-day living.

Spring quarter. 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, spring quarter. Mr. House.

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.

Winter quarter. Mr. Jamerson.

87. INDIVIDUAL PHYSICAL EDUCATION (3).

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.

Three hours a week, winter quarter. Mr. _____.

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. Shepard.
- 121ab. ADMINISTRATION OF PHYSICAL EDUCATION (5).
Spring quarter. Messrs. Shepard, Jamerson.
123. PERSONAL HYGIENE (3). Prerequisite, basic courses in science.
Three hours a week, fall quarter. Mr. Jamerson.
- 126ab. INDIVIDUAL PHYSICAL EDUCATION (5). Prerequisite, anatomy and physiology, or equivalent.
Spring quarter. Mr. Jamerson.
127. INTRAMURAL AND EXTRAMURAL ACTIVITIES FOR SCHOOLS AND COLLEGES (3).
Three hours a week, winter quarter. Mr. Jamerson.
173. COMMUNITY RECREATION (Sociology 173) (5). Mr. Meyer.
175. EXTRA-CURRICULAR ACTIVITIES (Sociology 175) (5). Mr. Meyer.

Courses for Graduates

220. TESTS AND MEASUREMENTS IN HEALTH AND PHYSICAL EDUCATION (3).
Three hours a week, winter quarter. Professor Cornwell.
221. PHYSIOLOGY OF EXERCISE (5). Prerequisite, zoology, anatomy and physiology.
Three lecture and four laboratory periods a week, winter quarter. Laboratory fee, \$5.00. Dr. Miller.
222. PRINCIPLES OF HEALTH EDUCATION (3). Prerequisite, adequate background in science.
Three hours a week, spring quarter. Mr. ———.
224. SCHOOL AND COMMUNITY HYGIENE (3). Prerequisite, adequate background in science.
Three hours a week, winter quarter. Mr. ———.
225. MODERN PROBLEMS IN PHYSICAL EDUCATION (3). Prerequisite, experience and advanced work in physical education and education.
Three hours a week, winter quarter. Messrs. Cornwell, Jamerson.
320. RESEARCH IN PHYSICAL EDUCATION (5). Prerequisite, experience and advanced work in the field.
Winter quarter. Messrs. Cornwell, Peacock.
- 341abc. SEMINAR COURSE (3 each). Prerequisite, 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: OTTO STUHLMAN, JR., KARL H. FUSSLER, PAUL E. SHEARIN, *Chairman*, NATHAN ROSEN

Associate Professors: F. T. ROGERS, JR., J. W. STRALEY

Lecturer: J. STANLEY JOHNSON

Half-Time Instructors: MARY JANE AULD, GRIFFIN CARMICHAEL, TALBOT CHUBB, THELMA B. DAVIS, MELVIN EISNER, HERMAN JARRELL, GEORGE JENKINS, ROBERT LIDE, MILLER MOSELEY, BROWNIE NEWMAN, ARTHUR WALTNER

Teaching Fellow: JACK PARNELL

Technician: NESTORE DICOSTANZO

Apparatus Custodian: W. D. HARRELL

S.B. in Physics

GENERAL COLLEGE

*English 1-2, 3, 4

†German or French

Mathematics 7-8, 31-32-33

Social Science 1-2

Physics 24-25, 54

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, 53, 55, 42, 56

SENIOR YEAR

‡English 59

Three courses from group A

A. Physics 101, 102, 103,
120, 140, 141, 158, 160,
161, 162, 170

Two courses from group B

B. Mathematics 103, 104,
111, 161, 171, 172, 191
Chemistry 31, 41, 42, 61,
62, 181, 182, 183

Three non-divisional electives

Requirement for graduation at least 88 quarter hours.

Courses for Undergraduates

20. TWENTIETH-CENTURY PHYSICS (6). No prerequisite.

An introductory course dealing with modern developments in physics. 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. Messrs. Shearin, Straley, Johnson.

24-25. GENERAL PHYSICS (12). Prerequisite or corequisite, Mathematics 7 or equivalent.

NOTE: Both parts must be completed in order to receive any credit.

* For English 3, 4 a student may substitute (a) 10 hours of Classical Literature or (b) 10 hours of Classical Language. For either 3 or 4 (which is to be designated by the English Department) a student may substitute a five-hour course in Fine Arts.

† The four courses required in language will be determined by the student's entrance and placement units.

‡ A non-divisional elective may be substituted if permission be granted by the Physics Department.

Five lecture and two laboratory hours a week, any quarter. Laboratory fee, \$4.00 a quarter. Lecture: Messrs. Stuhlman, Shearin, Straley, Rogers, Johnson, Waltner, Fussler. Laboratory: Mr. Fussler and staff.

41. ASTRONOMY (5).

Five hours a week with occasional observations, fall and spring quarters. Mr. Fussler.

42. RADIO (5). Prerequisite, Physics 55.

Four lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Mr. Rogers.

45. PHOTOGRAPHY (5).

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$5.00. Mr. Shearin.

51. X-RAY TECHNIQUE: BIOPHYSICS (5). Prerequisite, one year of general college physics.

Primarily for premedical or pre dental students, or medical technologists. May be used as a third or fourth year elective for S.B. in Medical Technology.

Two lecture and six laboratory hours a week, spring quarter. Laboratory fee, \$15.00. Mr. Stuhlman.

52. MECHANICS (5). Prerequisite, Physics 24-25.

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Fussler.

53. OPTICS (5). Prerequisite, Physics 24-25.

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Stuhlman.

54. MODERN DEVELOPMENTS IN PHYSICS (5). Prerequisite, Physics 24-25.

Spring quarter. Mr. Shearin.

55. ELECTRICITY AND MAGNETISM (5). Prerequisite, Physics 24-25.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Fussler.

56. HEAT (5). Prerequisite, Physics 24-25 and Mathematics 33.

Four lecture and three laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Straley.

57. BIOPHYSICS (5). Prerequisite, Physics 24-25. Primarily for premedical students and medical technologists.

Four lecture and three laboratory hours a week, fall quarter. Laboratory fee, \$3.00. Mr. Stuhlman.

91, 92. RESEARCH FOR SENIORS (3 each).

Laboratory fee, \$5.00 each quarter. Messrs. Fussler, Stuhlman, Rosen, Shearin, Straley, Rogers.

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). Prerequisite, Calculus and one of the following: Physics 52, 53, 55, 56. Mathematics 141 is desirable, but may be taken concurrently. *Fall, winter, and spring quarters.* Mr. Rosen.

110. PHYSICAL MECHANICS (5). Prerequisite, Calculus and one of the following: Physics 52, 53, 55, 56. (1947-1948 and alternate years.) *Spring quarter.* Mr. Rogers.

120. HEAT AND THERMODYNAMICS (5). Prerequisite, Physics 56. *Four lecture and two laboratory hours a week, fall quarter. Laboratory fee, \$3.00.* Mr. Straley.

140. ELECTRICITY AND MAGNETISM (5). Prerequisite, Calculus and one of the following: Physics 52, 53, 55, 56. *Fall quarter.* Mr. Rogers.

141. ADVANCED ELECTRICITY AND MAGNETISM (5). Prerequisite, Physics 140. *Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$3.00.* Mr. Rogers.

150. PHYSICAL OPTICS (5). Prerequisite, Calculus and one of the following: Physics 52, 53, 55, 56. (1948-1949 and alternate years.) *Winter quarter.* Mr. Shearin.

153. OPTICS (6). Prerequisite, Calculus and one of the following: Physics 52, 55, 56. *Four lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$3.00.* Mr. Stuhlman.

158. SOUND (5). Prerequisite, Physics 52 and Math 141. (1947-1948 and alternate years.) *Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00.* Mr. Shearin.

160. ELECTRONICS AND ATOMIC PHYSICS (5). Prerequisite, Calculus and one of the following: Physics 52, 53, 55, 56. (1946-1947 and alternate years.) *Spring quarter.* Mr. Stuhlman.

161. NUCLEAR PHYSICS (5). Prerequisite, Calculus, Physics 54, and one of the following: Physics 52, 53, 55, 56. *Winter quarter.* Mr. Shearin.

162. ATOMIC SPECTROSCOPY (5). Prerequisite, Physics 54 and 56. (1946-1947 and alternate years.) *Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$3.00.* Mr. Straley.

Courses for Graduates

201. BOUNDARY PROBLEMS IN CLASSICAL PHYSICS (5). Prerequisite, Mathematics 141, 171; Physics 140 and 103; Mathematics 221 is desirable. (1946-1947 and alternate years.) *Fall quarter.* Mr. Rosen.

220. KINETIC THEORY (5). Prerequisite, Mathematics 141; Physics 120, except by permission. (1948-1949 and alternate years.) *Fall quarter.* Mr. Rogers.

221. STATISTICAL MECHANICS (5). Prerequisite, Physics 220, except by permission.
(1948-1949 and alternate years.) *Winter quarter*. Mr. Rogers.
222. THERMODYNAMICS (5). Prerequisite, Mathematics 141; Physics 120, except by permission.
(1946-1947 and alternate years.) *Spring quarter*. Mr. Rogers.
240. ADVANCED ELECTROMAGNETIC THEORY (5). Prerequisite, Physics 141 or 103 and Mathematics 141.
(1947-1948 and alternate years.) *Fall quarter*. Mr. Rogers.
260. QUANTUM MECHANICS, PART I (5). Prerequisite, Physics 103 and 162. Mathematics 221 is desirable.
(1947-1948 and alternate years.) *Fall quarter*. Mr. Rosen.
261. QUANTUM MECHANICS, PART II (5). Prerequisite, Physics 260.
(1947-1948 and alternate years.) *Winter quarter*. Mr. Rosen.
262. QUANTUM MECHANICS, PART III (5). Prerequisite, Physics 261.
(1947-1948 and alternate years.) *Spring quarter*. Mr. Rosen.
263. BAND SPECTRA (5). Prerequisite, Physics 53 and 260.
(1947-1948 and alternate years.) *Winter quarter*. Mr. Straley.
264. SPECTROSCOPY OF THE INFRA-RED (5). Prerequisite, Physics 53 and 260.
(1947-1948 and alternate years.) *Spring quarter*. Mr. Straley.
267. CURRENT ADVANCES IN PHYSICS (5). Prerequisite, Mathematics 141; Physics 160.
Fall, or winter, or spring quarter. Any of the graduate professorial staff.
268. ADVANCED NUCLEAR PHYSICS (5). Prerequisite, Physics 161 and 261.
(1946-1947 and alternate years.) *Winter quarter*. Mr. Rosen.
271. THEORY OF THE SOLID AND LIQUID STATES (5). Prerequisite, Mathematics 141; Physics 120.
(1948-1949 and alternate years.) *Spring quarter*. Mr. Rosen.
301. RESEARCH (5 or more).
Ten or more laboratory or computation hours a week, any quarter.
Any member of the graduate professorial staff.

NOTE: Advanced instruction in DYNAMICS is provided by Mathematics 192 (Professor Hobbs), which may be taken for credit in either mathematics or physics.

DEPARTMENT OF PHYSIOLOGY

Professor: J. H. FERGUSON

Associate Professors: A. T. MILLER, E. P. HIATT

Part-time Instructor: JOAN WAX

Technician: R. S. SPARROW

51. GENERAL COURSE IN PHYSIOLOGY I (4). Prerequisite, general courses in zoology and chemistry. *Elective.

Two lecture and four laboratory hours a week, spring quarter. Laboratory fee, \$5.00. Messrs. Ferguson, Miller, Hiatt.

†141. PHYSIOLOGY OF MUSCLE, NERVE, AND CIRCULATION (5). Prerequisite, consult the instructors. *Elective.

Four lecture and four laboratory hours a week, second quarter. Laboratory fee for non-medical students, \$5.00. Messrs. Ferguson, Miller, Hiatt, and staff.

†142. GENERAL COURSE IN PHYSIOLOGY II (12). Prerequisite, consult the instructors. *Elective.

Six lecture and twelve laboratory hours a week, third quarter. Laboratory fee for non-medical students, \$10.00. Messrs. Ferguson, Miller, Hiatt, and staff.

Courses for Graduates

†201. ENDOCRINOLOGY (5). Prerequisite, Physiology 141 and 142.

Three lecture and four laboratory hours a week, first or second quarter. Laboratory fee, \$10.00. Messrs. Ferguson, Miller, Hiatt, and staff.

†202. BLOOD (5). Available to selected students.

Three lecture and four laboratory hours a week, first or second quarter. Laboratory fee, \$10.00 Mr. Ferguson.

†206. NEUROPHYSIOLOGY (5). Prerequisite, Physiology 141 and 142; Anatomy 101 or equivalent.

Three lecture and four laboratory hours a week, first or second quarter. Laboratory fee, \$10.00. Messrs. Ferguson, Miller, Hiatt, and staff.

†211. RESPIRATION (5). Prerequisite, Physiology 141, 142; Biological Chemistry 102 and 103.

Three lecture and four laboratory hours a week, first or second quarter. Laboratory fee, \$10.00. Mr. Miller.

†212. RENAL PHYSIOLOGY AND WATER BALANCE (5). Prerequisite, Physiology 141, 142, Biological Chemistry 102 and 103.

Three lecture and four laboratory hours a week, first or second quarter. Laboratory fee, \$10.00. Mr. Hiatt.

†301, 302, 303. RESEARCH IN PHYSIOLOGY (5 or more).

Hours to be arranged with instructor. *First, second, and third quarters. Laboratory fee, \$5.00. Messrs. Ferguson, Miller, Hiatt, and staff.*

* Before registering for this work the academic student must secure the permission of his Dean.

† First, second, and third quarters are with reference to the quarters in the session of the School of Medicine.

DEPARTMENT OF POLITICAL SCIENCE

Professors: C. B. ROBSON, W. W. PIERSON, R. D. W. CONNOR, E. J. WOODHOUSE, K. C. FRAZER, P. W. WAGER, W. S. JENKINS, J. W. FESLER, CLARENCE HEER, ALBERT COATES, R. J. M. HOBBS

Visiting Professor: GASPAR G. BACON

Associate Professor: J. L. GODFREY

Assistant Professor: F. G. GIL

Instructors: E. G. ASSEFF, G. A. DEEB, G. H. DEMING, A. P. GRIMES, R. H. HAMILTON, F. H. HARRIS, D. B. HAYMAN, J. W. REID, A. R. RICHARDS, J. P. SAWYER

Teaching Fellow: C. S. JAMES

Graduate Assistants: GLORIA C. WILLIS, EDNA SAFLEY

The requirements for the A.B. with a major in Political Science are Political Science 41, 42 or 81, and six additional courses. The Department offers a general major with a distribution of courses among at least three of the several fields of political science: (1) local, state, and federal government in the United States; (2) public law and administration; (3) foreign and comparative government; (4) international law and relations; and (5) political theory and jurisprudence, and recommends supporting courses in related departments such as economics, history, psychology, and sociology. It also offers majors with supporting programs in each of the following more specialized fields: (1) public administration; (2) foreign and international affairs; and (3) Latin-American affairs. There are also reading programs leading to the A.B. with Honors in Political Science in each of the fields listed above. Further details with reference to these several majors and programs of study may be obtained from the Department.

Courses for Undergraduates

41. GOVERNMENT IN THE UNITED STATES (5).

Each quarter. Materials fee, \$1.00. Messrs. Robson, *Chairman*, Wager, Jenkins, Asseff, Deming, Grimes, Harris, Hayman, Reid, Richards, Sawyer, Hamilton, Deeb.

42. PROCESSES AND PROBLEMS OF GOVERNMENT IN THE UNITED STATES (5). Prerequisite, Political Science 41.

Each quarter. Materials fee, \$1.00. Messrs. Robson, *Chairman*, Woodhouse, Jenkins, Wager, Fesler.

52. THE GOVERNMENTS OF EUROPE (5). Prerequisite, Political Science 41.

Fall or winter quarter. Materials fee, \$1.00. Messrs. Robson, ———. (Not given in 1946-1947.)

81. AMERICAN STATE GOVERNMENT (5). Prerequisite, Political Science 41.

Winter and spring quarters. Materials fee, \$1.00. Messrs. Connor, Jenkins.

86. INTERNATIONAL RELATIONS AND WORLD POLITICS (5). Prerequisite, Political Science 41.

Each quarter. Materials fee, \$1.00. Messrs. Frazer, Robson, Bacon.

87. LATIN-AMERICAN DIPLOMATIC RELATIONS (5). Prerequisite, Political Science 41.
Winter and spring quarters. Materials fee, \$1.00. Mr. Gil.

Courses for Graduates and Advanced Undergraduates

101. PUBLIC ADMINISTRATION (5). Prerequisite, Political Science 41.
Fall and winter quarters. Materials fee, \$1.00. Messrs. Wager, Fesler.

105. PUBLIC PERSONNEL ADMINISTRATION (5). Prerequisite, Political Science 41 and 101 or equivalent.
Winter or spring quarter. Materials fee, \$1.00. Messrs. Wager, Fesler.

121. THE GOVERNMENT OF ENGLAND (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Robson. (Not given in 1946-1947.)

123. COMPARATIVE GOVERNMENT (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Robson.

127. GOVERNMENT OF LATIN-AMERICAN STATES (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Pierson.

132. AMERICAN MUNICIPAL GOVERNMENT (5). Prerequisite, Political Science 41.
Fall quarter. Materials fee, \$1.00. Mr. Woodhouse.

133. AMERICAN MUNICIPAL ADMINISTRATION (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Woodhouse.

134. COUNTY GOVERNMENT AND ADMINISTRATION (5). Prerequisite, Political Science 41.
Fall or spring quarter. Materials fee, \$1.00. Mr. Wager.

141. INTRODUCTION TO INTERNATIONAL LAW (5). Prerequisite, Political Science 41.
Fall quarter. Materials fee, \$1.00. Mr. Frazer.

142. INTERNATIONAL ORGANIZATION AND INSTITUTIONS (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Frazer.

144. THE ORGANIZATION AND CONDUCT OF THE FOREIGN RELATIONS OF THE UNITED STATES (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Frazer.

145. PROBLEMS IN INTERNATIONAL RELATIONS (5). Prerequisite, Political Science 41 and permission of the instructor.
Spring quarter. Materials fee, \$1.00. Mr. Frazer.

151. THE ELEMENTS OF POLITICAL SCIENCE (5). Prerequisite, Political Science 41 or 51.
Fall quarter. Materials fee, \$1.00. Mr. Pierson.

154. DEVELOPMENT OF THE ENGLISH CONSTITUTION (5). Prerequisite, Political Science 41.
Fall quarter. Materials fee, \$1.00. Mr. Godfrey.
155. THE CONSTITUTION OF THE UNITED STATES (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Jenkins.
156. CONTEMPORARY PROBLEMS IN GOVERNMENT (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Woodhouse. (Not given in 1946-1947.)
157. HISTORICAL JURISPRUDENCE I (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Woodhouse. (Not given in 1946-1947.)
158. HISTORICAL JURISPRUDENCE II (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Woodhouse.
159. THE BRITISH EMPIRE (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Godfrey.
162. AMERICAN POLITICAL THOUGHT (5). Prerequisite, Political Science 41.
An analysis of the ideas underlying government and politics in the United States.
Fall or winter quarter. Materials fee, \$1.00. Mr. Robson.
165. POLITICAL THOUGHT OF THE EIGHTEENTH CENTURY (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Pierson. (Not given in 1946-1947.)
166. RECENT AND CONTEMPORARY POLITICAL THOUGHT (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Robson. (Not given in 1946-1947.)
175. POLITICAL PARTIES AND PUBLIC OPINION (5). Prerequisite, Political Science 41.
Fall quarter. Materials fee, \$1.00. Mr. Woodhouse.
181. RECENT NATIONAL POLICY AND ADMINISTRATION (5). Prerequisite, Political Science 41.
Spring quarter. Materials fee, \$1.00. Mr. Fesler.
185. FINANCIAL ADMINISTRATION (5). Prerequisite, Political Science 41.
Winter quarter. Materials fee, \$1.00. Mr. Wager. (Not given in 1946-1947.)
191. PUBLIC FINANCE (Economics 141) (5). Prerequisite, Economics 31-32 or equivalent. *Every quarter. Messrs. Heer, Lent.*
192. PROBLEMS IN FEDERAL FINANCE (Economics 142) (5). Prerequisite, Economics 141. *Winter quarter. Mr. Heer.*

193. PROBLEMS IN STATE AND LOCAL FINANCE (Economics 143) (5). Prerequisite, Economics 31-32 or equivalent.
Spring quarter. Mr. Heer.

197. GOVERNMENT AND BUSINESS (Economics 197) (5). Prerequisite, Economics 31-32 or equivalent.

Spring quarter. Messrs. Hobbs, Carter.

Courses for Graduates

209. PLANNING AND GOVERNMENT (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.

Fall quarter. Messrs. Fesler, Wager, Webb, Parker, and representatives of several departments.

210. PUBLIC ADMINISTRATION OF RESOURCES (5). Prerequisite, Political Science 41 and 101 or equivalent.

Fall or spring quarter. Materials fee, \$1.00. Mr. Wager.

221. ADMINISTRATIVE LAW (5). Prerequisite, Political Science 41, and 101 or equivalent.

Fall quarter. Materials fee, \$1.00. Mr. Fesler.

225. ADMINISTRATIVE ORGANIZATION AND MANAGEMENT (5). Prerequisite, Political Science 41 and 101 or equivalent.

Winter quarter. Materials fee, \$1.00. Mr. Fesler.

231. THE LEGISLATIVE PROCESS (5). Prerequisite, Political Science 41.

(1946-1947 and alternate years.) *Spring quarter.* Materials fee, \$1.00. Mr. Jenkins.

235. THE JUDICIAL PROCESS (5). Prerequisite, Political Science 41, and 155 or equivalent.

(1946-1947 and alternate years.) *Spring quarter.* Materials fee, \$1.00. Mr. Jenkins.

241. INTERNATIONAL LAW (5). Prerequisite, Political Science 41 or 51, and 141 or equivalent.

Winter quarter. Materials fee, \$1.00. Mr. Frazer.

286. PRINCIPLES AND PRACTICES IN MODERN WORLD POLITICS (5). Prerequisite, Political Science 41, and 86 or equivalent.

Fall or spring quarter. Materials fee, \$1.00. Mr. Bacon.

301abc. MODERN INTERNATIONAL RELATIONS (9). Prerequisite, Political Science 41.

Conferences, two hours a week, fall, winter and spring quarters. Materials fee, \$1.00. Mr. Frazer.

305. SEMINAR IN COUNTY ADMINISTRATION (5). Prerequisite, Political Science 134, or two other courses in Political Science.

Fall or spring quarter. Materials fee, \$1.00. Mr. Wager.

311abc. AMERICAN POLITICAL THEORY (9). Prerequisite, Political Science 41 or 51.

Conferences, three hours a week, fall, winter, and spring quarters. Materials fee, \$1.00. Mr. Pierson.

321abc. STATE AND LOCAL GOVERNMENT (9). Prerequisite, Political Science 41 or 51.

Conferences, three hours a week, fall, winter, and spring quarters. Materials fee, \$1.00. Mr. Woodhouse.

331. PROBLEMS IN PUBLIC ADMINISTRATION (5). Prerequisite, Political Science 41 and 101 or equivalent.

Fall, winter, or spring quarter. Materials fee, \$1.00. Mr. Fesler.

341. SEMINAR COURSE (5).

A research course in a special field under the direction of a member of the department.

361. PROBLEMS IN RECENT AND CONTEMPORARY POLITICAL THEORY (5).

Fall, winter, or spring quarter. Materials fee, \$1.00. Mr. Robson.

DEPARTMENT OF PSYCHOLOGY

Professors: J. F. DASHIELL, H. W. CRANE, ENGLISH BAGBY, *R. J. WHERRY

Associate Professor: W. J. DANIEL

Lecturers: MABEL E. GOUDGE, ALPHA B. WETTACH, CLIFFORD R. ADAMS, PEGGYLEE GANO

Instructors: J. C. DIXON, C. R. ELLIOTT, AILENE MORRIS, H. J. PAGE, MARJORIE B. LEAN, R. E. GOODNOW, S. B. LYERLY, MARIE L. PEACHEE

Teaching Fellow: PHYLLIS ROSNER

Assistants: MARJORIE MEYERS, MARY FRANCES BETHEL, LOVICK MILLER, JR., MARY JO WADE

Courses for Undergraduates

24, 25. GENERAL PSYCHOLOGY (6 each).

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, Dixon, Goodnow. Laboratory: Miss Morris, Messrs. Elliott, Goodnow, Lyerly, Mrs. Lean, Misses Rosner, Peachee.

NOTE: These courses may be elected separately, but neither may be elected as a student's first course in natural science.

33. SOCIAL PSYCHOLOGY (5). No prerequisite. May not be counted toward a major.

Fall quarter. Mr. Bagby, Mrs. Gano.

40. THE PSYCHOLOGY OF PERSONALITY (5). No prerequisite. May not be counted toward a major.

Spring quarter. Mr. Bagby.

* Absent on leave.

Courses for Graduates and Advanced Undergraduates

122. LEARNING PROCESSES (5). Prerequisite, Psychology 24, 25.
Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$1.00. Messrs. Daniel, Dashiell.

125. ANIMAL BEHAVIOR (5). Prerequisite, Psychology 24, 25.
Four lecture and two laboratory hours a week, fall quarter. Laboratory fee, \$2.00. Messrs. Daniel, Page.

126. CHILD DEVELOPMENT (5). Prerequisites, Psychology 24, 25.
Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$1.50. Mr. Dashiell, Mrs. Wettach.

130. ELEMENTARY PSYCHOLOGICAL STATISTICS (5). Prerequisite, Psychology 24, 25.
Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$1.00. Messrs. Wherry, Lyerly.

132. TEST CONSTRUCTION AND VALIDATION (5). Prerequisite, Psychology 24, 25.
Three lecture and four laboratory hours a week, winter quarter. (Alternates with 230.) Laboratory fee, \$2.00. Messrs. Wherry, Lyerly.

133. METHODS IN SOCIAL PSYCHOLOGY (5). Prerequisite, Psychology 24, 25.
Four lecture and two laboratory hours a week. Laboratory fee, \$1.00. Mr. Dashiell, Miss Rosner.

135. BUSINESS AND INDUSTRIAL PSYCHOLOGY (5). Prerequisite, Psychology 24, 25.
Four lecture and two laboratory hours a week, spring quarter. Laboratory fee, \$1.50. Mr. Adams, Miss Peachee.

136. SPECIAL PROBLEMS IN APPLIED PSYCHOLOGY (5).
Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$2.00. Mr. Wherry.

140. THE PSYCHOLOGY OF PERSONALITY (5). Prerequisite, Psychology 24, 25.
Winter quarter. Mr. _____.

144. MENTAL HYGIENE (5). Prerequisite, Psychology 24, 25.
Fall quarter. Mr. Crane.

145. FEEBLEMINDEDNESS (5).
 (1947-1948 and alternate years.) *Five hours a week, winter quarter. Mr. Crane.*

146. PSYCHONEUROSES AND PSYCHOSES (5). Prerequisite, Psychology 24, 25.
Spring quarter. Mr. Crane, Dr. Goudge.

147, 148. METHODS OF MENTAL EXAMINATION (5 each). Prerequisite, Psychology 24, 25.
Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Messrs. Crane, Elliott.

149, 150. CLINICAL PRACTICE (5 each). Prerequisite, Psychology 147.

Ten laboratory hours a week, winter or spring quarter. Laboratory fee, \$3.00 a quarter. Mr. Crane.

151, 152, 153. ORIGINAL PROBLEMS (5 each). Prerequisite, Psychology 24, 25.

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 PSYCHOLOGY (5). Prerequisite, Psychology 24, 25. Advised corequisite, Psychology 135 or Commerce 155.

Ten laboratory hours a week. Laboratory fee, \$3.00. Messrs. Wherry, _____.

192. CONTEMPORARY PSYCHOLOGICAL TRENDS (5). Prerequisite, Psychology 24, 25. For advanced majors only.

(1946-1947 and alternate years.) Fall quarter. Mr. Dashiell.

Courses for Graduates

201, 202. EXPERIMENTAL METHODS AND PROCEDURES (5 each).

Courses 201 and 202 to be offered in alternate years. One lecture and eight laboratory hours a week, winter quarter. Laboratory fee, \$3.00. Messrs. Daniel, Dashiell, Page.

205. PHYSIOLOGICAL PSYCHOLOGY (5).

(1946-1947 and alternate years.) Equivalent of six hours a week, winter quarter. Laboratory fee, \$3.00. Mr. Crane.

211. HISTORICAL SURVEY OF PSYCHOLOGY (5).

(1947-1948 and alternate years.) Fall quarter. Mr. Dashiell.

230. ADVANCED PSYCHOLOGICAL STATISTICS (5).

Three lecture and four laboratory hours a week, winter quarter. (Alternates with 132.) Laboratory fee, \$1.00. Messrs. Wherry, Lyerly.

234. MATHEMATICAL PSYCHOLOGY (5).

Spring quarter. Mr. Wherry.

251, 252, 253. RESEARCH IN PSYCHOLOGY (5 each). Prerequisite, Psychology 201 or 202.

Ten laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00 a quarter. Staff.

255. PROJECTIVE CLINICAL TECHNIQUES (5).

Fall quarter. Mr. _____.

325. SEMINAR (3 or 5).

Three or five hours a week, fall or winter or spring quarter, to be specially announced. Staff.

341, 342. ADVANCED RESEARCH (5 each).

Five laboratory hours a week, any quarter. Staff.

NOTE: The student is referred also to courses in Educational Psychology, Statistics, Neurology, and Physiology, listed in other departments of the University.

***SCHOOL OF PUBLIC HEALTH**

Professors: H. G. BAITY, A. HUGHES BRYAN, RUTH W. HAY, LUCY S. MORGAN

Research Professors: HAROLD J. MAGNUSON, JOHN J. WRIGHT

Associate Professors: MARGARET BLEE, PAUL D. HANEY, JOHN E. LARSH, JR., CARL V. REYNOLDS, WILLIAM P. RICHARDSON, EUNICE N. TYLER

Assistant Professors: EMIL T. CHANLETT, MARIBELLE G. FARLOW, SEYMOUR P. HALBERT

Visiting Professors: J. ROY HEGE, DAVID T. SMITH

Visiting Assistant Professor: MAURICE H. GREENHILL

Instructor: B. B. RIEDEL

Courses for Undergraduates**61. EXERCISES IN SANITATION (2½).**

One lecture and three laboratory hours a week, fall quarter. Mr. Chanlett.

Courses for Graduates and Advanced Undergraduates**101. EPIDEMIOLOGY (5).**

Five hours of lectures, demonstrations, and seminars a week, fall quarter. Mr. _____.

105. TUBERCULOSIS CONTROL (2).

Two lecture hours a week. Mr. Smith.

111. PUBLIC HEALTH ADMINISTRATION (3).

Three lecture hours a week. Mr. Richardson.

114. MENTAL HEALTH (2).

Two lecture hours a week. Mr. Greenhill.

115. PUBLIC HEALTH EDUCATION (3).

Three hours of lecture and demonstration a week, fall or winter quarter. Miss Morgan.

117. SCHOOL HEALTH EDUCATION (3).

Three hours of lecture and demonstration a week, fall or winter quarter. Miss Morgan; visiting lecturers.

121. PUBLIC HEALTH STATISTICS (3½).

Two lecture and three laboratory hours a week, fall quarter. Mr. _____.

131. BACTERIOLOGY (3½). Prerequisite, General Zoology, 41, 42, or equivalent.

Two lecture and three laboratory hours a week, fall quarter. Mr. Larsh.

* The courses in public health here described are those which may be of interest to students in the academic divisions of the University. For a complete list of courses see the special catalogue of the School of Public Health. Before registering for any course in Public Health, the academic student must secure the permission of his Dean and also that of the Dean of the School of Public Health.

133. MALARIOLOGY (5). Prerequisite, Bacteriology (P.H. 131) or General Zoology 41 and 42 or equivalent.

Three lecture and four laboratory hours a week, spring quarter. Messrs. Larsh, Baity.

134. MEDICAL ENTOMOLOGY AND INSECT CONTROL (3½). Prerequisite, Zoology 41 and 42, P.H. 131 and 135, or equivalent.

Two lecture and three laboratory hours a week, spring quarter. Mr. Riedel.

135. HUMAN PARASITOLOGY (3½). Prerequisite, Bacteriology (P. H. 131) or General Zoology 41 and 42 or equivalent.

Two lecture and three laboratory hours a week, winter quarter. Mr. Larsh.

140. PUBLIC HEALTH PROBLEMS (2½-5). Prerequisite, to be arranged with the faculty in each individual case, depending upon the problem that is to be studied.

Five or ten hours a week each quarter. Given by the members of the staff of the School of Public Health.

141. PRINCIPLES OF PUBLIC HEALTH NUTRITION (3).

Three lecture hours a week, winter quarter. Mr. Bryan.

161. THE PRINCIPLES OF SANITATION (5).

Three lecture and four laboratory hours a week, fall quarter. Messrs. Haney, Chanlett.

162. SANITARY CHEMISTRY I (5). Prerequisite, General Chemistry or equivalent.

Two lecture and six laboratory hours a week, fall quarter. Mr. Chanlett.

163. SANITARY CHEMISTRY II (5). Prerequisite, General Chemistry or equivalent.

Two lecture and six laboratory hours a week, winter quarter. Messrs. Chanlett, Haney.

164. SANITARY CHEMISTRY III (5). Prerequisite, P. H. 163 or equivalent.

Two lecture and six laboratory hours a week, spring quarter. Messrs. Chanlett, Haney.

181. PUBLIC HEALTH PROBLEMS IN INDUSTRY (3).

Three hours a week, winter quarter. Mr. Chanlett.

194. VENEREAL DISEASES AND THEIR CONTROL (2).

Two lecture hours a week, fall or winter quarter. Messrs. Magnuson, Wright; Mrs. Farlow; Miss Allen.

Courses for Graduates

202. EPIDEMIOLOGY II (5).

Five hours of lectures, demonstrations, and seminars a week, winter quarter. Mr. ———.

203. EPIDEMIOLOGY III (2½).

One lecture and three laboratory hours a week, spring quarter. Mr. Wright.

215. COMMUNITY ORGANIZATION FOR HEALTH EDUCATION (3).

Three lecture hours a week, fall or winter quarter. Miss Morgan; visiting lecturers.

216. METHODS IN PUBLIC HEALTH EDUCATION (3).

Three lecture hours a week, fall or winter quarter. Mrs. Tyler.

217 abc. PROBLEMS IN HEALTH EDUCATION (2½-5).

Five or ten hours a week, each quarter. Mrs. Tyler and members of the Staff of the School of Public Health.

232. PARASITOLOGICAL METHODS (5). Prerequisite, Human Parasitology (P.H. 135).

Three lecture and six laboratory hours a week, spring quarter. Mr. Larsh.

241. PROBLEMS IN PUBLIC HEALTH NUTRITION (3).

Two seminars and two laboratory hours a week, summer quarter. Mr. Bryan.

261. MILK AND FOOD CONTROL (3). Prerequisite, P.H. 101, P.H. 131, P.H. 161.

Two lecture and three laboratory hours a week, winter quarter. Mr. Chanlett; visiting lecturers.

262. LIMNOLOGY AND STREAM POLLUTION (5). Prerequisite, P.H. 162 and 163.

Three lecture and four laboratory hours a week, spring quarter. Mr. Haney.

271. HYDROLOGY (3). Prerequisite, Hydraulics, Math. 124.

Three lecture hours a week, winter quarter. Mr. Haney.

*DEPARTMENT OF RADIO

Professor: EARL WYNN

Associate Professor: FRED T. ROGERS

Assistant Professors: JANE E. GRILLS, J. L. MORRISON

Instructor: RHODA M. HUNTER

Special Lecturer: ROBERT F. SCHENKKAN

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 management and operation of radio stations; 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.

* The Department of Radio will begin its functions as a separate department with the fall quarter, 1947.

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 letters of recommendation from former teachers and associates.

Except for Radio 70—Introduction to Radio—all courses are restricted to majors in Radio and to majors in those departments double-listed with Radio.

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 distributed as follows:

Required: Introduction to Radio (70).

At least one course from the following: Speaking and Acting for the Microphone (71); Continuity Writing for Radio (72).

At least one course from the following: Radio (42); News Writing for Radio (73); Dramatic Script Writing for Radio (74); Radio Production (75).

At least two courses from the following: Advanced Script Writing (80); Advanced Dramatic Production (81); Program Planning for Radio (83).

One to three additional courses in radio upon the advice of the Head of the Department of Radio.

Four to seven courses in allied departments of the Division of the Humanities.

Four to seven courses from other divisions to be taken after conference with the Head of the Department of Radio.

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 spring quarters. Miss Hunter and guest lecturers.

71. SPEAKING AND ACTING FOR THE MICROPHONE (Dramatic Art 71) (5). Prerequisite, Radio 70.

An introduction to speaking and acting for an aural medium; lectures, discussion, and laboratories.

Three lecture and four laboratory hours a week, fall and winter quarters. Fee for materials, \$2.00. Mr. Wynn.

72. CONTINUITY WRITING (Journalism 72) (5). No prerequisite.

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.

Winter and spring quarters. Fee for materials, \$2.00. Mr. Morrison.

73. NEWS WRITING FOR RADIO (Journalism 73) (5). No prerequisite.

A study of the principles of newscasting and the methods involved in editing and writing the news program.

Fall quarter. Fee for materials, \$2.00. Mr. Morrison.

74. DRAMATIC SCRIPT WRITING FOR RADIO (Dramatic Art 74) (5). Prerequisite, Radio 70.

A study of all forms of radio dramatic writing including unit and serial drama, dramatic narrative, and documentary drama.

Each quarter. Mr. Schenkkan.

75. RADIO PRODUCTION (Dramatic Art 75) (5). Prerequisite, Radio 70 and 71 or 72.

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.

Three lecture and four laboratory hours a week, winter and spring quarters. Miss Grills.

42. RADIO (Physics 42) (5). Prerequisite, Physics 55.

Four lecture and three laboratory hours a week, spring quarter. Laboratory fee, \$3.00. Dr. Rogers.

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.

Spring quarter. Messrs. Wynn and Schenkkan.

81. ADVANCED DRAMATIC PRODUCTION (5). Prerequisite, Radio 75.

A study of complex program types with emphasis on advanced methods of dramatic production. Open to seniors only.

Three lecture and four laboratory hours a week, winter quarter. Fee for materials, \$2.00. Miss Grills.

83. PROGRAM PLANNING FOR RADIO (5). Prerequisite, Radio 80 or 81.

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. Miss Grills.

DEPARTMENT OF ROMANCE LANGUAGES

Professors: W. M. DEY, S. E. LEAVITT, U. T. HOLMES, N. B. ADAMS, H. R. HUSE, J. C. LYONS, *Secretary*, R. S. BOGGS, S. A. STOUDEMIRE, W. L. WILEY, *H. GIDUZ

Associate Professors: †H. H. STAAB, R. W. LINKER, A. G. ENG-STROM

Assistant Professor: F. G. GIL

Instructors: J. E. CARROLL, ‡W. D. CREECH, W. A. MCKNIGHT, E. F. MOYER, ‡R. G. LEWIS, E. D. TURNER, F. M. DUFFEY, D. H. WALTHER, W. G. BURKS, G. W. POLAND, J. W. WHITTED, J. W. BANNER, W. S. WOODS, §W. E. STRICKLAND, ||D. W. MCPHEETERS, J. M. SMITH, ‡M. D. RAMÍREZ, R. BAESSA, J. MIRANDA, J. HARDRÉ, J. S. PATTY, E. W. BROCKMAN, R. R. MAC-CURDY, J. H. PEAK, J. V. MYERS, A. H. YARROW, S. L. ROBE, L. A. SHARPE, C. E. BUTLER, J. ELMENDORF, T. E. SCOTT, M. ELSTUN, J. A. MOORE, H. L. BALLEW, J. R. CRUZ, ¶E. ANGEL-BELLO, ¶E. T. DRAPER-SAVAGE

Teaching Fellows: MARION GREENE, GWENDOLYN CALDWELL, J. R. BEELER

Research Assistant: PRISCILLA ROETZEL

FRENCH

Students interested in having a major in French will please consult Dr. J. C. Lyons, Departmental Adviser.

Those students who plan to teach in public high schools should read the statement on page 205.

Courses for Undergraduates

1-2. ELEMENTARY FRENCH (10).

Five hours a week through two quarters. Messrs. Linker, Carroll, Moyer, Woods, Strickland, Smith, Hardré, Patty, Brockman, Myers, Yarrow, Butler, Elmendorf, Scott, Draper-Savage, Beeler.

NOTE: No student is permitted to take French 1, 2, 3, or 4 and Spanish 1, 2, 3, or 4 at the same time.

Attention is called to French 14-15, designed for advanced students who have fulfilled the requirements in another foreign language.

*3-4. INTERMEDIATE FRENCH (10).

Five hours a week, through two quarters. Messrs. Giduz, Linker, Carroll, Moyer, Woods, Strickland, Smith, Hardré, Patty, Brockman, Myers, Yarrow, Elmendorf, Scott.

14-15. BEGINNING COURSE FOR ADVANCED STUDENTS (10).

Elective. *Five hours a week, fall and winter quarters.* Mr. Hardré.

* Chairman of French 1, 2, 3, 4.

† Associate Professor *Emeritus*.

‡ Absent on leave in military service.

§ Absent on leave, fall quarter, 1946.

¶ Fall quarter only.

¶ Appointed January 1, 1947.

17-18. TRAINING IN TRANSLATION (No credit). Prerequisite, Intermediate French. A course for students in the School of Commerce.

Five hours a week, through two quarters. Mr. _____.

*21-22. ADVANCED FRENCH (10).

Sophomore elective. *Five hours a week, through two quarters.* Messrs. Huse, Lyons, Wiley, Linker, Engstrom, Woods, Smith, Hardré, Patty.

25. COMMERCIAL FRENCH (5). Prerequisite, Intermediate French.

Spring quarter. Mr. _____.

50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (5). Prerequisite, Intermediate French.

Winter quarter. Mr. Linker.

51. FRENCH CONVERSATION AND COMPOSITION (5).

Any quarter. Messrs. Lyons, Hardré.

52. FRENCH CIVILIZATION (5).

Any quarter. Mr. Lyons.

71. SURVEY OF FRENCH LITERATURE I (5).

Open to juniors and seniors. *Fall and spring quarters.* Mr. Engstrom.

72. SURVEY OF FRENCH LITERATURE II (5).

This course is a continuation of French 71. Open to juniors and seniors. *Winter quarter.* Mr. Engstrom.

83. MATERIALS AND METHODS IN HIGH SCHOOL FRENCH (5). See Education 83a.

Winter quarter. Mr. Giduz.

84. DIRECTED TEACHING OF HIGH SCHOOL FRENCH (5). See Education 84.

Any quarter. Laboratory fee, \$10.00. Mr. Giduz.

Courses for Graduates and Advanced Undergraduates

109. THE FRENCH NOVEL (5). Prerequisite, French 71-72. (1946-1947 and alternate years.) *Winter quarter.* Mr. Dey.

115. FRENCH LYRIC POETRY (5). Prerequisite, French 71-72. *Spring quarter.* Mr. Huse.

126. HISTORY OF THE FRENCH LANGUAGE (5). Prerequisite, French 71-72.

Winter quarter. Messrs. Holmes, Linker.

131. THE FRENCH DRAMA PRIOR TO 1700 (5). Prerequisite, French 71-72.

(1947-1948 and alternate years.) *Winter quarter.* Mr. Wiley.

132. THE FRENCH DRAMA SINCE 1700 (5). Prerequisite, French 71-72.

(1946-1947 and alternate years.) *Spring quarter.* Mr. Wiley.

* Any of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

145. FRENCH PHONETICS (5). Prerequisite, French 71-72.
Fall quarter. Messrs. Dey, Wiley.
161. THE SIXTEENTH CENTURY (5). Prerequisite, French 71-72.
Spring quarter. Mr. Lyons.
- I 171. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (5). Prerequisite, French 71-72.
(1946-1947 and alternate years.) *Fall quarter.* Mr. Lyons.
- II 172. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (5). Prerequisite, French 71-72.
(1947-1948 and alternate years.) *Winter quarter.* Mr. Lyons.
181. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (5). Prerequisite, French 71-72.
(1947-1948 and alternate years.) *Fall quarter.* Mr. Huse.
191. FRENCH ROMANTICISM (5). Prerequisite, French 71-72.
(1947-1948 and alternate years.) *Winter quarter.* Mr. Dey.
192. FRENCH LITERATURE SINCE 1850 (5). Prerequisite, French 71-72.
(1947-1948 and alternate years.) *Spring quarter.* Mr. Dey.
- CELTIC 105. OLD IRISH (5).
Winter 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).
A study of literary criticism in France before and during the classical period, with special emphasis on Malherbe and Boileau, and attention to Greek and Roman backgrounds.
(1947-1948 and alternate years.) *Winter quarter.* Mr. Wiley.
212. LITERARY CRITICISM IN FRANCE—THE MODERN PERIOD (5).
Continuation of French 211; literary criticism during the modern period, with particular emphasis upon the work of Sainte-Beuve, Brunetière, and Lemaitre.
(1948-1949 and alternate years.) *Spring quarter.* Dr. Dey.
220. VULGAR LATIN (5).
(1947-1948 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).
(1947-1948 and alternate years.) *Spring quarter.* Mr. Holmes.
231. FRENCH SYNTAX (5).
(1946-1947 and alternate years.) *Spring quarter.* Mr. Dey.

248. FRENCH LITERATURE OF THE 14TH AND 15TH CENTURIES (5). Prerequisite, French 221 or 265. (1946-1947 and alternate years.) *Spring quarter*. Mr. Holmes.

265-266. FRENCH LITERATURE OF THE RENAISSANCE (10). (1946-1947 and alternate years.) *Winter and spring quarters*. Mr. Lyons.

324 abc. ROMANCE PALEOGRAPHY (5). (1946-1947 and alternate years.) *Two hours a week, fall, winter, and spring quarters*. Mr. Linker.

331. HISTORY OF FRENCH LITERATURE PRIOR TO 1300 (5). French 221 is desired, though not prerequisite. (1946-1947 and alternate years.) *Fall quarter*. Mr. Holmes.

370. SEMINAR IN MINOR ROMANCE TONGUES (5). (1947-1948 and alternate years.) *Spring quarter*. Mr. Holmes.

391. STUDIES IN ROMANTICISM (5). Prerequisite, French 191. (1947-1948 and alternate years.) *Spring quarter*. Mr. Dey.

395. RESEARCH (5).

Research in a special field under the direction of a member of the department.

PORTUGUESE

Courses for Undergraduates

51-52. ELEMENTARY PORTUGUESE (10). Prerequisite, Intermediate French or Spanish. *Fall and winter quarters*. Mr. Walther.

72. SURVEY OF BRAZILIAN LITERATURE (5). Prerequisite, Portuguese 51-52. *Spring quarter*. Mr. Walther.

Course for Graduates

221. OLD PORTUGUESE (5). (1947-1948 and alternate years.) *Fall quarter*. Mr. Holmes.

SPANISH

Students interested in having a major in Spanish will please consult Dr. S. A. Stoudemire, departmental adviser.

Those students who plan to teach in public high schools should read the statement on page 205.

Courses for Undergraduates

1-2. ELEMENTARY SPANISH (10).

Five hours a week, through two quarters. Messrs. Stoudemire, McKnight, Turner, Duffey, Walther, Burks, Poland, Whitted, Banner, McPheeters, Baessa, Miranda, MacCurdy, Peak, Robe, Sharpe, Elstun, Moore, Ballew, Cruz, Bello.

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. Adams, Gil, McKnight, Turner, Duffey, Walther, Burks, Poland, Whitted, Banner, McPheeters, Baessa, Miranda, MacCurdy, Peak, Robe, Sharpe.

14-15. BEGINNING COURSE FOR ADVANCED STUDENTS (10).

Elective. Five hours a week, fall and winter quarters. Mr. Stoudemire.

***21-22. ADVANCED SPANISH (10).**

Sophomore elective. Five hours a week, through two quarters. Messrs. Leavitt, Adams, Stoudemire, McKnight, Duffey, Burks, Banner.

25. COMMERCIAL SPANISH (5). Prerequisite, Intermediate Spanish.

Spring quarter. Mr. McKnight.

50. ADVANCED COMPOSITION, SYNTAX, AND THEME WRITING (5). Prerequisite, Intermediate Spanish.

Fall quarter. Messrs. Stoudemire, McKnight.

51. SPANISH CONVERSATION AND COMPOSITION (5).

Any quarter. Mr. Gil.

52. SPANISH CIVILIZATION (5). Prerequisite, Spanish 51.

Any quarter. Mr. Gil.

71. SURVEY OF SPANISH LITERATURE TO 1700 (5).

Open to juniors and seniors. Fall and spring quarters. Mr. Stoudemire.

72. SURVEY OF SPANISH LITERATURE SINCE 1700 (5).

This course is a continuation of Spanish 71. Open to juniors and seniors. Winter quarter. Mr. Stoudemire.

83. MATERIALS AND METHODS IN HIGH SCHOOL SPANISH (Education 83b) (5).

Winter quarter. Mr. Giduz.

84. DIRECTED TEACHING OF HIGH SCHOOL SPANISH (Education 84) (5).

Any quarter. Laboratory fee, \$10.00. Mr. Giduz.

Courses for Graduates and Advanced Undergraduates

109. EARLY SPANISH PROSE FICTION (5). Prerequisite, Spanish 71-72.

(1946-1947 and alternate years.) *Fall quarter.* Mr. Adams.

110. THE SPANISH NOVEL, 1605-1898 (5). Prerequisite, Spanish 71-72.

(1946-1947 and alternate years.) *Winter quarter.* Mr. Adams.

111. MODERN SPANISH NOVELISTS (5). Prerequisite, Spanish 71-72.

(1946-1947 and alternate years.) *Spring quarter.* Mr. Adams.

* Any of these courses may be taken separately for elective credit if the language requirement has already been satisfied.

112. THE NOVEL IN SPANISH AMERICA (5). Prerequisite, Spanish 71-72.
(1947-1948 and alternate years.) *Spring quarter*. Mr. Leavitt.
115. EARLY LYRIC POETRY (5). Prerequisite, Spanish 71-72.
(1947-1948 and alternate years.) *Fall quarter*. Mr. Adams.
117. CERVANTES (Comparative Literature 117) (5).
Credit in Spanish is given upon approval of the instructor. *Spring quarter*. Mr. Stoudemire.
131. LOPE DE VEGA AND HIS CONTEMPORARIES (5). Prerequisite, Spanish 71-72.
(1947-1948 and alternate years.) *Fall quarter*. Mr. Leavitt.
132. CALDERÓN AND HIS CONTEMPORARIES (5). Prerequisite, Spanish 71-72.
(1947-1948 and alternate years.) *Winter quarter*. Mr. Leavitt.
134. SPANISH DRAMA OF THE NINETEENTH CENTURY (5). Prerequisite, Spanish 71-72.
(1946-1947 and alternate years.) *Fall quarter*. Mr. Leavitt.
135. MODERN SPANISH DRAMA (5). Prerequisite, Spanish 71-72.
(1946-1947 and alternate years.) *Winter quarter*. Mr. Leavitt.
145. SPANISH PHONETICS (5). Prerequisite, Spanish 71-72.
Spring quarter. Mr. Boggs.

Courses for Graduates

201. BIBLIOGRAPHY AND METHODOLOGY (5). Required of all candidates for the A.M. and Ph.D. degrees.
Fall quarter. Mr. Stoudemire.
- 221-222. OLD SPANISH (10).
Five hours a week, fall and winter quarters. Mr. Boggs.
241. STUDIES IN SPANISH-AMERICAN LITERATURE (5).
(1946-1947 and alternate years.) *Spring quarter*. Mr. Leavitt.
291. EARLY SPANISH LITERATURE (5). Prerequisite, Spanish 221-222.
Spring quarter. Mr. Boggs.
393. SPANISH ROMANTICISM (5). Seminar Course.
(1946-1947 and alternate years.) *Spring quarter*. Mr. Adams.
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. Huse.

52. MODERN ITALIAN LITERATURE (5). Prerequisite, Italian 51.
Winter quarter. Mr. Huse.

Courses for Graduates and Advanced Undergraduates

131. DANTE I (5). Prerequisite, Italian 51-52.
 (1947-1948 and alternate years.) *Spring quarter.* Mr. Huse.
132. DANTE II (5). Prerequisite, Italian 131.
 (1946-1947 and alternate years.) *Spring quarter.* Mr. Huse.
156. DANTE IN ENGLISH TRANSLATION (Comparative Literature 156) (5).
Winter quarter. Mr. Huse.
161. ITALIAN LITERATURE OF THE RENAISSANCE (5). Prerequisite, Italian 51 and 52.
Spring quarter. Mr. Huse.

Courses for Graduates

221. OLD ITALIAN (5).
 (1946-1947 and alternate years.) *Fall quarter.* Mr. Holmes.

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, J. P. GILLIN
 Associate Professors: HARRIET L. HERRING, D. S. KLAISS, J. E. IVEY, JR., N. J. DEMERATH
 Special Lecturer: BERTRAM M. DRUCKER
 Instructor: ABBOTT L. FERRISS
 Teaching Fellow: WILLIS A. SUTTON, JR.
 Assistants: KITTIE BURRUSS, SHIZUKO HAYASHI

Undergraduate major: Sociology 51, 52, 152, and five elective courses. If courses *equivalent* to Sociology 51 and 52 have been successfully completed elsewhere, six courses, including Sociology 152, are required. Majors should note that, through proper selection of courses, they can prepare for graduate study in general Sociology, Anthropology, or Rural Sociology. Courses in Anthropology and Rural Sociology carry regular Sociology numbers but are grouped together following the courses in general Sociology.

Graduate degrees: Except with special permission, Sociology 152, 191, and 208 or their equivalents are required for those seeking a graduate degree. A minor for the master's and doctor's degrees may be taken in Anthropology or Rural Sociology, as well as in general Sociology.

Electives: Sociology 51 and 52 are prerequisites for all other courses in the department except where otherwise indicated. Students desiring particular electives may choose courses in line with their interests upon the approval of the instructor concerned.

* On leave as Visiting Professor in Sociology, Yale University, 1946-1947.

† On leave as Director, Southern Regional Council, Atlanta, Georgia, 1946-1947.

COURSES IN GENERAL SOCIOLOGY

Courses for Undergraduates

51. INTRODUCTION TO SOCIOLOGY (5).
Any quarter. Messrs. Brooks, Vance, Blackwell, Ivey.
52. SOCIAL PROBLEMS (5). No prerequisite.
Any quarter. Messrs. Meyer, Sutton.
56. HOW TO STUDY SOCIETY (5). Prerequisite, three courses in Sociology.
Spring quarter. Mr. ———.
62. MARRIAGE (5). Open to seniors only. No prerequisite.
Fall and spring quarters. Mr. Klaiss.

Courses for Graduates and Advanced Undergraduates

113. TECHNIQUES OF SOCIAL ACTION (5).
(1946-1947 and alternate years.) *Winter quarter.* Mr. Ivey.
133. SOCIAL PSYCHOLOGY (Psychology 133) (5). Prerequisite, Psychology 24 and 25.
Four lecture and two laboratory hours a week, winter quarter. Laboratory fee, \$1.00. Mr. Dashiell.
142. BASIC CONCEPTS OF THE SOCIAL SCIENCES (Philosophy 142) (5).
Spring quarter. Mr. Kattsoff.
152. SOCIAL THEORY (5). Prerequisite, three courses in Sociology.
Fall and spring quarters. Messrs. Vance, Demerath.
154. CONTEMPORARY SOCIETY (5).
(1948-49 and alternate years.) *Fall quarter.* Mr. Odum.
155. SOCIAL CHANGE AND SOCIAL PROGRESS (5). Prerequisite, three courses in Sociology.
(1947-48 and alternate years.) *Fall quarter.* Mr. Odum.
160. INTRODUCTION TO SOCIAL WORK (5).
Winter quarter. Mr. Fink.
161. THE FAMILY (5).
Winter quarter. Mr. Klaiss.
167. HOUSING AND COMMUNITY DEVELOPMENT (5). Prerequisites, Sociology 51 and Economics 31-32 or Economics 61.
Spring quarter. Mr. Demerath.
168. THE URBAN COMMUNITY (5).
Winter quarter. Mr. Demerath.
169. THE INDUSTRIAL COMMUNITY (5).
Winter quarter. Miss Herring.
171. EDUCATIONAL SOCIOLOGY (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Ivey.

173. COMMUNITY RECREATION (5).
Fall quarter. Mr. Meyer.
174. COMMUNITY LEADERSHIP (5).
Spring quarter. Mr. Blackwell.
175. EXTRA-CURRICULAR ACTIVITIES (5).
Spring quarter. Mr. Meyer.
176. RECREATION PLANNING AND ADMINISTRATION (5).
Spring quarter. Mr. Meyer.
180. REGIONAL PROBLEMS AND PLANNING (5). Prerequisite,
three courses in Sociology.
Winter quarter. Mr. Odum.
181. REGIONAL SOCIOLOGY OF THE SOUTH (5).
Fall quarter. Mr. Blackwell.
182. THE COOPERATIVE MOVEMENT (5).
Fall quarter. Mr. Brooks.
183. SOCIAL CONTROL AND PUBLIC OPINION (5).
(1946-1947 and alternate years.) *Winter quarter.* Mr. Brooks.
186. POPULATION (5).
Fall quarter. Mr. Vance.
191. SOCIAL STATISTICS (5). Prerequisite, three courses in
Sociology.
Four lecture and four laboratory hours a week, fall quarter. Mr.
Drucker.
192. CRIMINOLOGY (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Brooks.
193. SOCIAL PATHOLOGY (5).
Winter quarter. Mr. Meyer.
195. SOCIAL INSTITUTIONS (5).
(1948-1949 and alternate years.) *Spring quarter.* Mr. Blackwell.
197. POPULATION STATISTICS (5).
(Alternate years.) *Four lecture and four laboratory hours a week,*
spring quarter. Mr. _____.
198. JUVENILE DELINQUENCY AND ITS SOCIAL TREATMENT
(5).
Fall quarter. Mr. Sanders.

Courses for Graduates

208. METHODS IN SOCIAL RESEARCH (5).
Fall quarter. Messrs. Odum, Blackwell; Miss Jocher.
210. FOLK SOCIOLOGY (5).
Spring quarter. Mr. Odum.
212. CONTEMPORARY AMERICAN SOCIOLOGY (5).
Spring quarter. Mr. Odum.
215. EXPERIMENTAL SOCIOLOGY (5).
Spring quarter. Mr. Ivey.

218. HUMAN ECOLOGY (5).
(1946-1947 and alternate years.) *Winter quarter.* Mr. Vance.
253. ADVANCED SOCIAL STATISTICS (5). Prerequisite, Sociology 191.
Four lecture and four laboratory hours a week, winter quarter. Mr. _____.
- 301, 302, 303. GRADUATE RESEARCH SEMINARS (5 each quarter.) Registration with permission of instructor.
Fall, winter, and spring quarters. Mr. Blackwell; members of the department.
- 327, 328, 329. GRADUATE RESEARCH SEMINARS (5 each quarter.) Registration with permission of instructor.
Fall, winter, and spring quarters. Mr. Odum.
331. THE FAMILY AND ITS SOCIAL FUNCTIONS (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Klaiss.
333. EDUCATION FOR MARRIAGE AND FAMILY LIFE (5).
(1948-1949 and alternate years.) *Winter quarter.* Mr. Klaiss.
341. SEMINAR (5).
Individual research (thesis or dissertation) in a special field under the direction of a member of the Department.
Any quarter.

*COURSES IN ANTHROPOLOGY

Courses for Graduates and Advanced Undergraduates

120. GENERAL ANTHROPOLOGY (5).
(1947-1948 and alternate years.) *Fall quarter.* Mr. Gillin.
- (5) 122. CULTURAL ANTHROPOLOGY (Formerly Sociology 151)
Fall quarter. Messrs. Gillin, Johnson.
125. THE NEGRO (5).
Spring quarter. Mr. Johnson.
126. RACES AND PEOPLES OF AFRICA (5).
(1947-1948 and alternate years.) *Winter quarter.* Mr. Gillin.
- (5) 127. NATIVE PEOPLES AND CULTURES OF LATIN AMERICA
(1946-1947 and alternate years.) *Winter quarter.* Mr. Gillin.

Courses for Graduates

220. THEORIES OF CULTURE (5).
(1946-1947 and alternate years.) *Spring quarter.* Mr. Gillin.
222. FOLK CULTURES IN THE MODERN WORLD (5).
(1947-1948 and alternate years.) *Spring quarter.* Mr. Gillin.
230. RACE AND CULTURE CONTACTS (5).
Winter quarter. Mr. Johnson.

* FOLKLORE 185, INTRODUCTION TO FOLKLORE (5), Professor Boggs, may be counted toward an Anthropology minor for a graduate degree.

321, 322, 323. SEMINAR IN ANTHROPOLOGY (5 each quarter.)
Registration with permission of instructor.
Fall, winter, and spring quarters. Messrs. Gillin, Johnson.

*COURSES IN RURAL SOCIOLOGY

Courses for Undergraduates

53. RURAL SOCIAL-ECONOMICS (5). No prerequisite.
Fall quarter. Mr. Hobbs.

54. RURAL COOPERATION: HISTORY, PRINCIPLES, PRACTICES (5).
Winter quarter. Mr. Hobbs.

Courses for Graduates and Advanced Undergraduates

101. NORTH CAROLINA: ECONOMIC AND SOCIAL (5).
Fall quarter. Mr. Hobbs.

102. RURAL SOCIOLOGY (Formerly Sociology 71, 271abc) (5).
Winter quarter. Mr. Hobbs.

103. HISTORY OF AGRICULTURE (5).
Spring quarter. Mr. Hobbs.

110. RURAL LAND PLANNING AND LAND ECONOMICS (5).
Prerequisite, or co-requisite, General Economics or Sociology 53.
Winter quarter. Mr. Hobbs.

166. THE RURAL COMMUNITY (5).
Spring quarter. Mr. Hobbs.

Courses for Graduates

311, 312, 313. RURAL SOCIAL PROBLEMS (5 each quarter).
Fall, winter, and spring quarters. Mr. Hobbs.

* Additional graduate courses in Rural Sociology are available at North Carolina State College in Raleigh.

DEPARTMENT OF ZOOLOGY

Professors: R. E. COKER, C. D. BEERS, D. P. COSTELLO

Associate Professors: W. L. ENGELS, *I. C. KITCHIN, MAURICE WHITTINGHILL, C. S. JONES, NELSON MARSHALL, D. G. FREY

Instructor: †C. B. BLAIR, JR.

Teaching Fellow: ROBERTA LOVELACE

Assistants: A. C. BROAD, ‡C. C. FREEMAN, †R. B. STOLACK, ANNE E. OSBORNE, M. E. DOBBINS, ‡KENDALL WILLIS, MCCRAY JONES, ‡MANCE BOGEY, †R. A. MOORE, ‡LOIS HARRIS, †W. A. CHAPPELL, †GERTRUDE G. OSBORNE, †W. R. TOTHEROW, †C. P. ADAMS, †WILLIAM REGELSON

Requirements for Undergraduate Major: For A.B. with major in Zoology, there are required six courses in Zoology of the level of 41 or higher, or five in Zoology with Botany 41. Six courses should be taken in other departments of the Division of the Natural Sciences including two courses in chemistry and two in physics, if these have not been taken in the General College. Courses necessary to complete the required number of hours for graduation should be taken in departments outside the Division of Natural Sciences. At least three courses should be taken in one department other than Zoology either within or without the Division.

Those students who plan to teach in public high schools should read the statement on page 205.

Courses for Undergraduates

1. ELEMENTS OF HUMAN AND ANIMAL BIOLOGY (5). Freshman elective.

Zoology 1 and Botany 1 present some fundamental concepts of biological science. They are offered for students who do not plan to take higher courses in the natural sciences and cannot be used as prerequisites for the latter. For introductory or basic training refer to Zoology 41, 42, and Botany 41.

Four lecture and two laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$3.00. Messrs. Frey, Blair; Assistants.

41. FUNDAMENTALS OF ANIMAL BIOLOGY (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 professional requirements.

Four lecture and four laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50. Mr. Jones; Assistants.

42. PRINCIPLES OF ANIMAL BIOLOGY (6). Prerequisite, Zoology 41.

Four lecture and four laboratory hours a week, winter and spring quarters. Laboratory fee, \$7.50. Mr. _____; Assistants.

46. OCEANOGRAPHY (OCEANIC ECOLOGY) (5).

An introduction to the study of the seas with special reference to the conditions of biological productivity and fisheries.

* Absent on leave, 1946-1947.

† Beginning with winter quarter.

‡ Fall quarter only.

The course treats briefly the history of oceanography, and deals with 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. The course is planned to be of value to anyone interested in the seas, because of concern with aviation, meteorology, navigation, geography, or biology.

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.

Four hours of lectures and reading and two hours laboratory a week, fall 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 Department of Education.

Courses for Graduates and Advanced Undergraduates

103. COMPARATIVE VERTEBRATE ANATOMY (6). Prerequisite, Zoology 41 and 42.

Two lecture and nine laboratory hours a week, fall and winter quarters. Laboratory fee, \$12.50. Mr. Engels.

104. VERTEBRATE EMBRYOLOGY (6). Prerequisite, Zoology 103.

Students who have not had Zoology 103 may be admitted by special permission.

Two lecture and nine laboratory hours a week, winter and spring quarters. Laboratory fee, \$10.00. Mr. Whittinghill.

105. VERTEBRATE HISTOLOGY AND MICROTECHNIQUE (6). Prerequisite, Zoology 41 and 42.

One lecture and ten laboratory hours a week, spring quarter. Laboratory fee, \$10.00. Mr. Beers.

106-107-108. MORPHOLOGY AND CLASSIFICATION OF THE INVERTEBRATES (5 each). Prerequisite, Zoology 41 and 42.

Ten laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50 a quarter. Mr. Beers.

109. INTRODUCTION TO HYDROBIOLOGY (5). Prerequisite, Zoology 41 and 42.

Ten laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Coker.

110. GENERAL PARASITOLOGY (5). Prerequisite, Zoology 41 and 42.

Three lecture and four laboratory hours a week, winter quarter. Laboratory fee, \$7.50. Mr. Costello.

111. GENETICS (5). Prerequisite, Zoology 41 and 42.

Three lecture and four laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Whittinghill.

112. VERTEBRATE FIELD ZOOLOGY (5). Prerequisite, Zoology 41 and 42.

Two lecture and eight laboratory and field hours a week, spring quarter. Laboratory fee, \$7.50. Mr. Engels.

Courses for Graduates

209-210-211. EXPERIMENTAL EMBRYOLOGY (5 each).

Ten laboratory and seminar hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50 a quarter. Mr. Costello.

212. HYDROBIOLOGY (5). Prerequisite, Zoology 109.

Ten laboratory hours a week, fall or winter or spring quarter. Laboratory fee, \$7.50. Mr. Coker.

215. PROTOZOOLOGY (5).

Ten laboratory hours a week, fall quarter. Laboratory fee, \$7.50. Mr. Beers.

217. CELL PHYSIOLOGY (5). Prerequisite, Organic Chemistry.

Five lecture or conference hours a week, spring quarter. Mr. Costello.

316. RESEARCH (5 or more).

Ten or more laboratory hours a week, fall, winter, and spring quarters. Laboratory fee, \$7.50 per 5 quarter hours credit. Messrs. Coker, Beers, Costello, Engels, Whittinghill, Jones, Marshall, Frey.

PART FIVE—EXTENSION DIVISION AND THE GRADUATE AND PROFESSIONAL SCHOOLS

THE UNIVERSITY EXTENSION DIVISION

- FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
RUSSELL MARVIN GRUMMAN, B.H., *Director*
CHARLES FREMONT MILNER, AM. in Educ., *Associate Director*
EARL WYNN, M.S., *Director, The Communication Center*
*EDGAR RALPH RANKIN, A.M., *Head, Department of School Relations*
WILLIAM JOHN MCKEE, C.E., Ph.D., *Supervisor of Correspondence Instruction*
JOHN E. IVEY, JR., Ph.D., *Director of Research Interpretation*

†The Administrative Board

- | | |
|--|---|
| ALBERT COATES, A.B., LL.B. | CHARLES FREMONT MILNER, A.M. |
| GEORGE RALEIGH COFFMAN, Ph.D. | ROY WILLIAM MORRISON, Ph.D. |
| OLIVER KELLY CORNWELL, M.A. | GUY BERRYMAN PHILLIPS, M.A. |
| WESLEY CRITZ GEORGE, Ph.D. | SAMUEL SELDEN, A.B. |
| SAMUEL HUNTINGTON HOBBS, Jr., Ph.D. | CORYDON PERRY SPRUILL, JR., A.B., B.Litt. (OXON.) |
| JOHN ELI IVEY, JR., Ph.D. | WILLIAM SMITH WELLS, Ph.D. |
| ARNOLD KIMSEY KING, A.M. | LOUIS ROUND WILSON, Ph.D., Litt.D., LL.D. |
| STURGIS ELLENO LEAVITT, Ph.D., Litt.D. | REX SHELTON WINSLOW, Ph.D. |
| HAROLD DIEDRICH MEYER, A.M., LL.D. | HARRY DEMERLE WOLF, Ph.D. |
| | EARL WYNN, M.S. |

Heads of Bureaus

- JOHN VOLNEY ALLCOTT, M.A., *Art Extension*
MARY LOUISA COBB, A.B., *Correspondence Instruction*
EARL HORACE HARTSELL, Ph.D., *English Extension*
GLEN HAYDON, Ph.D., *Community Music*
SAMUEL HUNTINGTON HOBBS, JR., Ph.D., *Economic and Social Surveys*
CHARLES EUGENE MCINTOSH, A.M., *High School Debating and Athletics*

* Absent on leave in service.

† The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each Administrative Board.

HAROLD DIETRICH MEYER, A.M., LL.D., *Recreation*
CHARLES FREMONT MILNER, A.M. in Education, *Visual Education*
JOHN WILLIAM PARKER, A.M., *Community Drama*
GUY BERRYMAN PHILLIPS, M.A., *Educational Information and Assistance*
HARRY DEMERLE WOLF, Ph.D., *Institute of Industrial Relations*

GENERAL STATEMENT

By means of correspondence instruction, extension classes, public forums, radio programs, 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 under 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 the world of 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, the English Teacher, 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 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 Department 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 Correspondence Instruction

All information and regulations concerning correspondence courses offered by the University are contained in the catalogue of Correspondence Instruction issued separately. This contains information regarding economical plans for college and adult education.

The University offers correspondence courses to men and women in the armed forces through the U. S. Armed Forces Institute, and to veterans through contract with the Veterans Administration.

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 aid in solving any particular problem of the director of dramatics may be obtained from this bureau.

Assistance is given in organizing, in play selecting, in the designing and making of scenery, in costuming, and in 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, and organ recitals; (5) advisory service to schools; (6) concerts by the University Symphony Orchestra, the Symphonic Band, and the University Glee Clubs.

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 News Letter*, and bulletins which record the results of a number of county surveys. *The University News Letter*, which is edited by this department, appears twenty-five times each year.

Bureau of Educational Information and Assistance

The bureau is maintained through the cooperation of the Department of Education. The several members of the faculty of the department offer to the State the following lines of service: 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 at Chapel Hill each summer. A short course in high school senior English also is conducted during the summer session. A course by correspondence in the teaching of high school English is offered.

Bureau of High School Debating and Athletics

The University Extension Division, through this bureau, offers service to the high schools of the State by means of contests in debating, athletics, and academic subjects.

The N. C. 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, grouped in triangles, discuss some important question each year. The winning schools send their teams to the University to compete during High School Week in the final contest for the Aycock Memorial Cup.

The N. C. High School Athletic Association is the agency through which assistance in athletics is offered. This association conducts State high school contests in football, basketball, wrestling, baseball, track, soccer, golf, and tennis. The high schools compete in groups for the honor of representing the eastern and western sections of the State, and the teams winning the sectional contests meet at Chapel Hill in the finals.

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, mathematics, history, and English. High school newspaper, magazine, and essay contests also are conducted.

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 also may be arranged.

From time to time the University has held at Chapel Hill 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, 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 Director of the North Carolina Recreation Commission.

Bureau of Visual Education

The services of the Bureau of Visual Education are available to all schools and other educational and civic agencies on a cost basis. Primarily, the visual education services are designed to aid elementary, secondary school, and college teachers to supplement classroom instruction. Consequently, material is being selected that may be integrated with the curriculum or courses of study in public schools and colleges.

The Bureau is prepared to provide a number of advisory services concerning visual aids. The educational film library loan service is described in an issue of the University Extension Bulletin.

COOPERATIVE ACTIVITIES

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 Commerce. (See section of catalogue on the School of Commerce 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, and the Credit Bureau and Merchants Association Management Institute.

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, and finance.

The Communication Center

Through radio, motion pictures, graphic presentation, still pictures, models, film strips, recordings, illustrated publications, and eventually television, the Communication Center will provide an *extension* of the University to the people of North Carolina. (See Communication Center, pp. 78-81.) 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 Service

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 to 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 College Centers

Sponsored by the North Carolina College Conference and the State Department of Public Instruction, off-campus College Centers offering freshman courses for veterans and non-veterans are organized and administered by the Directorate of Extension of the University of North Carolina. Approximately one thousand students were enrolled in twelve centers during 1946-1947.

Division of Research Interpretation Institute for Research in Social Science

The Division was organized to tackle the job of divising scientific methods for getting facts to the people. It applies the findings and the methods of social science to the problem of divising and testing such methods.

In addition to its interest in training for teaching and in research interpretation, the Division provides a central office for the Committee on Southern Regional Studies and Education of the American Council on Education. It edits the *Bulletin* of the North Carolina Council for the Social Studies, serves in an executive capacity for the North Carolina Resource-Use Education Commission, and provides research and evaluation for projects of the Communication Center.

THE GRADUATE SCHOOL

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean*
ARNOLD KIMSEY KING, A.M., *Associate Dean*

*The Administrative Board

WILLIAM DEBERNIERE MAC- NIDER, M.D., Sc.D., LL.D.	RUPERT BAYLESS VANCE, Ph.D., LL.D.
WILLIAM MORTON DEY, Ph.D.	GEORGE COFFIN TAYLOR, Ph.D.
EDGAR WALLACE KNIGHT, Ph.D.	Litt.D.
JOHN BROOKS WOOSLEY, Ph.D.	RALPH WALTON BOST, Ph.D.
BERTHOLD LOUIS ULLMAN, Ph.D.	FLETCHER MELVIN GREEN, Ph.D.
JOHN NATHANIEL COUCH, Ph.D.	

General Statement

The Graduate School finds its province in the fostering of research, in training students to become investigators and teachers in special fields of learning, in the application of research methods to the problems of society, government, and industry, and in supplying opportunity for further and advanced study by those who have already completed a college course. 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 both from the standpoint of the personnel of its faculty and in material equipment in libraries and laboratories.

Instruction leading to the Master's degree was offered at this institution prior 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

* The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each administrative Board.

immediate direction of the Graduate School is in 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 recognized as 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, Art, Bacteriology and Immunology, Biological Chemistry, Botany, Chemistry, Classics, Comparative Literature, Dramatic Art, Economics and Commerce, 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, and Personnel Administration. The degree of Doctor of Philosophy is offered in the fields of Anatomy, Biological Chemistry, Botany, Chemistry, Classics, Comparative Literature, Economics and Commerce, Education, English, Geology and Geography, Germanic Languages, History, Mathematical Statistics, Mathematics, Music, Philosophy, Physics, Physiology, Political Science, Psychology, Romance Languages, Sociology, and Zoology, and in the Curricula in Comparative Linguistics and Folklore. Minor programs for the doctorate may be obtained in the Curricula in Folklore and Personnel Administration. The Ph.D. is also offered in Public Health.

Professional graduate degrees are offered in Education (M.A. in Education), Public Health (Master of Public Health, Master of Science in Public Health, Master of Science in Sanitary Engineering, Master of Science in Public Health Nursing, and Doctor of Public Health), Regional Planning (Master of Regional Planning), and in Social Work (Master of Science in Social Work).

*The Curriculum in Comparative Linguistics

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 offer programs of study in this subject leading to the degrees of Master of Arts and Doctor of Philosophy. It is also possible for those with majors in language to secure a minor in comparative linguistics.

†The Division of Public Welfare and Social Work

Since 1920 the University has offered training in social work with the primary emphasis on public welfare. Within its chosen field the Division has directed attention first to an understanding of the problems with which the social worker must deal and a knowledge of the social sciences upon which the solution of these problems must be based. As the complement of this scientific knowledge it offers training in the techniques of social work with practical experience, particularly in the field of public welfare and in rural social work.

* The Administrative Committee: The Dean (Chairman); Professors Lane (Secretary), Boggs, Eliason, Holmes.

† The Administrative Committee: Professors Pierson, Fink (Director), Brown, Odum, S. H. Hobbs, Jr., Woosley, Crane, King, Berryhill, Wright.

The School offers a graduate curriculum providing two years' work and leading to the degree of Master of Science in Social Work. In general a bachelor's degree from a college or university of recognized standing and with undergraduate emphasis on sociology, psychology, economics, or political science is required for admission. An occasional mature student who does not have a bachelor's degree may be admitted as a special student. Admission to the Division does not necessarily mean admission to candidacy for a degree.

For details the special catalogue of the Division of Public Welfare and Social Work should be consulted.

*The Curriculum in Folklore

A curriculum has been authorized in which 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. It will hereafter be possible for a candidate for the A.M. degree to secure a major in Folklore or for a candidate for the Ph.D. degree to secure a minor in that subject.

†The Curriculum in 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 Personnel Administration

This curriculum mobilizes the instructional resources having relation to personnel administration which have developed here in such fields as Economics and Commerce, Education, Political Science, Psychology, Social Work, and Sociology. Opportunities will be afforded qualified students to elect programs of study which cut across departmental lines. Also there will be opportunity to choose definite areas of specialization within the respective departments which will 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.

* Administrative Committee: The Dean (Chairman); Professors Boggs, Holmes, Hudson, Jente.

† Administrative Committee: The Dean (Chairman); Acting Dean Herman G. Baity (Director); Professors W. deB. MacNider, R. W. Bost, J. B. Woosley.

‡ Administrative Committee: The Dean (Chairman); Professors Wager (Secretary), Morrison, Wolf, Dashiell, R. M. Brown, Jocher, King.

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.
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

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
ROBERT HASLEY WETTACH, A.M., LL.B., S.J.D., *Dean*

*The Administrative Board

HENRY P. BRANDIS, JR., A.B., LL.B. FRANK WILLIAM HANFT, A.B., LL.M., S.J.D.
DUDLEY DEWITT CARROLL, M.A. ALLAN WILSON HOBBS, Ph.D.
MAURICE TAYLOR VAN HECKE, Ph.B., J.D.

General Statement

The School of Law, now in its one hundred and second year and with a regular faculty of nine, offers a three-year course leading toward the degrees of LL.B. and J.D. It is on the approved list of the North Carolina and New York Boards of Law Examiners, and of the American Bar Association. It is a member of the Association of American Law Schools, and is one of thirty 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 and statutes than upon those of the other states, the legal doctrines 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 every other state in the Union.

Candidates for admission to the School of Law must have completed with a C average three years of a regular college curriculum leading to a standard degree. If this work has followed the combined degree program offered by the College of Arts and Sciences or by the School of Commerce of this University, the student may receive the Bachelor's degree in Arts or in Commerce, as the case may be, upon the satisfactory completion of the first year in law. Students pursuing the academic subjects listed in the combined A.B.-LL.B. and S.B.-LL.B. programs are hereby notified that the completion of the required academic courses does not necessarily mean admission to the Law School. To the extent that limitation of enrollment is necessary, preference will be given to applicants with superior records, considering both the quality and amount of pre-law work. Applications for admission as regular students must be approved by the Registrar of the University.

A program of study required for first year students has been arranged to begin in the fall semester of each year. Beginning students will be admitted only once a year, in September. Students with advanced standing from other law schools may be admitted at the beginning of any term.

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

* The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each Administrative Board.

The School of Law is located in Manning Hall. The Law Library, in charge of two trained law librarians and a staff of assistants, now numbers approximately 52,000 volumes.

The students of the School of Law are regularly enrolled in the University, enjoy all the 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. A full curriculum is provided for advanced students. The summer faculty normally includes as visiting professors a number of 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, please write to the Dean of the School of Law for the separate bulletin of that school.

THE SCHOOL OF MEDICINE

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
WALTER REECE BERRYHILL, A.B., M.D., *Dean*

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DANIEL ALLAN MCPHERSON, Ph.D.	ENGLISH BAGBY, Ph.D.
	KENNETH MERLE BRINKHOUS, M.D.

Committee on Admission and Promotion

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Committee on the Library

WESLEY CRITZ GEORGE, Ph.D., <i>Chairman</i>	
FRED WILSON ELLIS, Ph.D.	WALTER REECE BERRYHILL, A.B., M.D.
†WILLIAM RINGGOLD STRAUGHN, M.S.	ANNIE PICKARD, A.B., A.B.L.S., <i>Acting Librarian</i>
HAROLD JOSEPH MAGNUSON, M.D., M.P.H.	

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

* The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each Administrative Board.

† On leave of absence.

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, and Obstetrics serve to lessen the abruptness of the change from the laboratory to the hospital.

The School has an arrangement with Watts Hospital in Durham whereby the ward and dispensary patients are available for teaching purposes in the clinical courses. The clinical material at the State Hospital in Raleigh, the State Tubercular Sanatorium at Sanatorium, and the patients in the Orange County Health Clinic 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 Cornell in the East to the University of California in the West.

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

Preparation for Medicine and Requirements

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 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.

No student will be admitted with less than three years of accredited college work (96 semester hours), which must include a minimum of twelve semester hours in chemistry (including four semester hours of organic chemistry), eight semester hours in biology (at least four semester hours being in zoology), eight semester hours in physics

(which must have required trigonometry as prerequisite), six semester hours in English, and six semester hours in a modern foreign language beyond the amount required in the language chosen for admission to the University. An elementary course in volumetric analysis is desirable. In case of an exceptionally well qualified applicant the prerequisite of work in trigonometry for physics may be waived.

Rarely are students admitted who have completed only the minimal requirements unless their academic records are of such outstanding excellence as to warrant their acceptance. 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. All students interested in the study of medicine should attempt to stand in the upper third of their academic classes.

While a high grade of scholarship is probably the best criterion for predicting achievement in medical school, the personal qualifications of applicants are of the highest importance. Moral character is the most important prerequisite for entering the medical profession. No school wishes to train prospective physicians who lack either ethical standards or a sense of social responsibility.

All admissions are decided by the Dean of the School of Medicine and a special committee on admissions after approval of credentials by the Dean of Admissions. The maximal number admitted to the first year class is fifty. The Dean and special committee reserve the right to select from the entire list of approved applicants those who in their judgment are best qualified for the study of medicine.

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 required fifteen units, 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.

The Medical Curriculum

The medical curriculum covers two years divided into six periods, or quarters, of approximately equal length. It is organized into six departments: Anatomy, Bacteriology and Immunology, Biological Chemistry and Nutrition, Pathology, Pharmacology, and Physiology, with additional courses in Medicine, Physical Diagnosis, Principles of Surgery, and Obstetrics, and an affiliated School of Public Health. For description of the courses and other details see Special Catalogue for the Medical School.

THE SCHOOL OF PHARMACY

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
MARION LEE JACOBS, Ph.D., *Dean*

*The Administrative Board

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HENRY ROLAND TOTTEN, Ph.D.	Ph.D.
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A.B., M.D.	EDWARD ARMOND BRECHT,
IRA WINFIELD ROSE, Ph.G.	Ph.D.

General Statement

In 1830 Dr. Thomas W. Harris was instrumental in establishing a School of Pharmacy at the University in connection with the School of Medicine. The school was continued until the resignation of Doctor Harris in 1886, when it was abandoned. In 1890 the school was revived by Dr. Richard H. Whitehead, but again its career was short. Finally, in March 1897, in response to urgent requests made by the North Carolina Pharmaceutical Association, 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, 22,000 sq. ft. of floor space, and is located in the northeast section of the campus, adjacent to the Arboretum, the Medicinal Plant Gardens, and the Botany Building (Davie Hall).

The minimal offerings of the School are based on four years of study which lead to the degree of Bachelor of Science in Pharmacy (S.B. in Phar.).

The School was admitted to membership in the American Association of Colleges of Pharmacy in 1917. This organization was formed for the promotion of thorough scientific work in the profession of pharmacy. It maintains high standards for membership based on the number and training of the faculty, the thoroughness of the work offered, the quality of the curriculum, the number of students, the financial support of the school, and the facilities for carrying on the work.

The School is accredited fully by the American Council on Pharmaceutical Education. The University of the State of New York credits fully four years' work here as evidence of due preparation for the examinations of the licensing board of that state. The same sort of credit is now extended by all other state examining boards.

Properly qualified applicants of either sex may be admitted, provided they meet the requirements for entrance. Their credentials are first submitted to the Director of Admissions of the University. Beginning students are accepted in September only. Transfer students are accepted in the quarter best suited to their future program of study.

*The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of each Administrative Board.

Because of the rapidly expanding size of its student body the School of Pharmacy finds itself compelled, through lack of adequate space, equipment, faculty, and other facilities, to limit its acceptance of beginning and transfer students to a smaller number, for this coming year at least. A committee of three will be charged with the responsibility of selecting that number of eligible candidates who will be accepted. Applications of eligible persons should be made as early as possible.

The School of Pharmacy recognizes that its graduates may elect to pursue one or another of three related but definitely different forms of pharmaceutical practice. They may become prescriptionists in or owners of retail drug stores; they may elect to enter the field of medicinal manufacture; or they may decide to establish technical laboratories or enter the U. S. Public Health Service. Each different form of effort requires a specialized type of training, and the School has attempted to provide such specialization.

By action of the Administrative Board of the School of Pharmacy the Dean of the School is authorized to allow substitutions of certain academic subjects for certain prescribed pharmaceutical courses in the cases of "rising" fourth year students who in his opinion have made such records as to warrant their acceptance after graduation into standard medical schools.

The School of Pharmacy urges superior students who are desirous of securing the benefits of thorough specialized training and intensive research work to pursue additional work in the Graduate School, where courses of training leading to the degrees of Master of Science (S.M. in Phar.) and Doctor of Philosophy (Ph.D.) are offered. The three majors available are Pharmacy, Pharmaceutical Chemistry, and Pharmacognosy.

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.

For further information, please write to the Dean of the School of Pharmacy for the special catalogue of that school.

THE SCHOOL OF LIBRARY SCIENCE

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt, *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*

CHARLES E. RUSH, A.B., M.A., B.L.S., *Chairman, Administrative Board, Division of Library and Library School*

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

*The Administrative Board

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STURGIS ELLENO LEAVITT, Ph.D.	LOUIS ROUND WILSON, Ph.D., Litt.D., LL.D.
GUY BERRYMAN PHILLIPS, M.A.	

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.

The curricula of the School offer a basic course preparing the student for beginning positions in any type of library. A certain amount of specialization is available after the second quarter, depending upon the student's interests and qualifications.

Quarters for the School, comprising laboratory and classrooms for the students and offices for the faculty, are in the University Library.

The town school system maintains a high school library and an elementary school library available for observation. Within driving distance of from thirty minutes to two hours are the school and public library systems of Durham, Raleigh, and Greensboro and the libraries of Duke University, the State Library, the Library Commission headquarters, the North Carolina State College of Agriculture and Engineering, and the Woman's College of the University of North Carolina.

The principal requirement for admission is a bachelor's degree from an accredited college or university.

Applicants are expected to have received a grade of B (=90 per cent or better) in at least fifty per cent of their undergraduate work. An applicant's college degree may not be approved if his course included an undue proportion of vocational or professional subjects such as library science, education, home economics, or agriculture. For certain library positions thorough training in one of these or in some other field is essential, but it should be in addition to rather than as part of his undergraduate preparation.

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Students must have reasonable ability in typewriting before admission to the School.

Those over thirty-five years of age are advised not to apply for admission to the School unless they have been continuously engaged in library work or in some similar pursuit.

Applicants must show evidence of ability to do library work and must have had a well-balanced selection of courses leading to the required bachelor's 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. The class will be chosen on a basis of individual promise of success.

It is required that applicants be interviewed by a member of the faculty of the School or a librarian designated by the School.

For definite recommendations on the content of the preparatory work see the special catalogue of the School of Library Science.

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.

Certain courses are open to advanced undergraduates in the College of Arts and Sciences. They are listed under Department of Library Science in this catalogue at page 233.

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.

Nine courses must be satisfactorily completed in residence in the University of North Carolina for a 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.

The residence requirement for a degree is three academic quarters. This requirement must be completed within five years.

The School of Library Science cannot guarantee to find positions for its graduates. With their cooperation, however, suitable records are maintained in order to enable them to secure desirable positions through the School, and every effort is made to bring graduates and library employers together.

The courses of the regular session for school and public librarians are repeated in the summer session. The same requirements apply as in the regular session.

Application for admission to the School for either the regular session or the summer session should be made as far as possible in advance 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 detailed information see the special catalogue of the School.

THE SCHOOL OF PUBLIC HEALTH

FRANK PORTER GRAHAM, M.A., LL.D., D.C.L., D.Litt., *President*
ROBERT BURTON HOUSE, A.M., LL.D., *Chancellor and Vice-President of the University of North Carolina*
WALTER REECE BERRYHILL, A.B., M.D., *Chairman, Division of Medical Sciences*
WILLIAM WHATLEY PIERSON, Ph.D., Litt.D., *Dean of the Graduate School*
HERMAN GLENN BAITY, Sc.D., *Acting Dean of the School of Public Health*
RUBY ROSS, *Administrative Secretary*

*Administrative Board

HERMAN GLENN BAITY, Sc.D., *Professor of Sanitary Engineering*
JOHN JOSEPH WRIGHT, A.B., M.D., M.P.H., *Research Professor of Epidemiology*
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ROBERT ERVIN COKER, Ph.D., *Kenan Professor of Zoology*
HOWARD WASHINGTON ODUM, Ph.D., LL.D., Litt.D., L.H.D., *Kenan Professor of Sociology*
WINFIELD KENNEDY SHARP, JR., M.D. *Surgeon, U. S. Public Health Service*
JOHN BROOKS WOOSLEY, Ph.D., *Professor of Economics*
WILL CARSON RYAN, Ph.D., LL.D., *Kenan Professor of Education*

General Statement

In 1936 a Division of Public Health was established and a Director appointed. The University of North Carolina, at Chapel Hill, was then designated by the United States Public Health Service as the center for training of health officials for the Interstate Sanitary District No. 2 (extending from Delaware to Florida), to carry out the provisions of the Social Security Act for the training of public health personnel.

The Division of Public Health was given the status of a School of Public Health in 1939 and graduate degrees offered.

A Department of Public Health Nursing was organized in 1941. In September of 1942, a Department of Health Education was established. The School enjoys the distinction of being one of the ten in North America whose M.P.H. programs are accredited by the American Public Health Association.

* The Chancellor, the Registrar, and the Dean of Students are *ex officio* members of this board.

The School of Public Health enjoys the active cooperation of the State Department of Health at Raleigh. Members of the staff give exercises in their special fields, and the students have the opportunity to see the practice and study the methods and material of an efficient State health organization at first hand.

Cooperation is also maintained with Duke University and its hospital, as well as with Watts Hospital, in Durham. Furthermore, the school enjoys the cooperation of the local health officers at Durham and Chapel Hill who, through lectures and practical demonstrations, give the student an opportunity to see the health work of a city and county government, where, as well as at Raleigh, opportunity is offered for special study and investigation of health problems.

Similarly, cooperation is maintained with the United States Public Health Service, the Children's Bureau, and other Federal health agencies, members of which participate through lectures and discussions.

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

Students are enrolled in the University of North Carolina and enjoy all the rights and privileges of the graduate student body. They may take courses in other departments of the University provided they are properly qualified and have the approval of the Administration. Certain courses in economics, political science, sociology, social work, education, public speaking, and statistics are regarded as having an especially close relationship to public health.

The Administration reserves the right to refuse admission to any student who, in its judgment, is not qualified to profit by work in the Graduate School, to limit the number of students admitted to any course, and to drop from the roll any student whose work it deems unsatisfactory for any reason. All applicants for admission will be assumed to have assented to these conditions.

The School of Public Health is in the same building with the School of Medicine, with which it maintains close cooperation. Academically, it clears through the Graduate School, and those interested are advised to consult the Graduate School Catalogue.

Graduate degrees offered by the School of Public Health are administered by the Graduate School of the University of North Carolina. These degrees are: Master of Public Health (M.P.H.), Doctor of Public Health (Dr. P.H.), Master of Science (with designation) (M.S.), Doctor of Philosophy (with designation) (Ph.D.).

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.

The Certificate in Public Health (C.P.H.) and Certificate in Public Health Nursing (C.P.H.N.) are not considered graduate degrees and are, therefore, administered by the faculty of the School of Public Health.

An undergraduate degree, Bachelor of Science in Public Health Nursing, is awarded 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, administered by the College of Arts and Sciences.

For more detailed information and proposed curricula leading to degrees see the special catalogue of the School of Public Health.

PART SIX—DEGREES CONFERRED, INDEX

DEGREES CONFERRED AUGUST 31, 1945

BACHELORS OF ARTS

Jean Buchanan	Clarence Honeycutt Martin
William Herman Camp	Mary Louise Milam
Arthur Conescu	Virginia Louise Milne
Elizabeth Marion Counterman	Arthur Hamilton Rogers, Jr.
Evelyn Judith Gruntwagin	Ruth Claire Sayce
Sara Elizabeth Herndon	Anita M. Sosnow
Alexandra Kambis	Shirley Ellen Weatherwax
D. Juliette Kambis	Sally Hipp Wertheim
Henrienne Leigh	Margaret Wirt White
Viginia Garland Lipsey	

BACHELORS OF ARTS IN JOURNALISM

Gisli Johnson Asthorsson	Ann White Ingle
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BACHELORS OF SCIENCE IN COMMERCE

William Faison Barnes	Gloria Ferrone Rosenbloom
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BACHELOR OF LAWS

Bernard Ottway Burton

DOCTORS OF LAW

Cecil James Hill	James Giles Hudson, Jr.
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BACHELORS OF SCIENCE IN PHARMACY

Doris Parker Bullard	Mary Thomasine Slayton
Shirley Hurwitz	Burney Simon Warren
John Arthur Ranzenhofer	

BACHELORS OF SCIENCE IN LIBRARY SCIENCE

Roxanna Austin	Eleanor Marguerite McDermid
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PROFESSIONAL GRADUATE DEGREES

MASTERS OF ARTS IN EDUCATION

Joseph H. Bohlinger	Marjorie Louise Leonard
Katherine Gaston	Leila Hubbard Morrison
Lucille Bolton Ingram	Claude C. Williams
Gertrude Harris King	

MASTERS OF SCIENCE IN PUBLIC HEALTH

Ruth Werner Brossman	Maude Elizabeth Davis
Theron Hervey Butterworth	Nell Jane Guthrie
Laura Ellen Carson	Janie Herndon
Angeles Cebollero	Russell Marshall Hilderbrand, Jr.
Mercedes Cedó	Dorothy Ann Huskey
Martha Louise Clark	Margaret Jane Idema

Mazie Jean Jones
 Willa Lee Joyner
 Mary Lou King
 Frances Kornegay
 Clara Leone Lankford
 Mary Hines Leonard
 Mary Finette Lewis
 Catalina Lube
 Elta Mae Mast

Leila Cottingham McCormick
 Mary Hithcock Parks
 Virginia Lenore Potts
 Charlotte Belle Rickman
 Effie Mildred Spahr
 Louisa Lanham Spell
 Jennie Dixon Stout
 Maria de los Angeles Vazquez
 Maria Esther Viera

GRADUATE DEGREES

MASTER OF SCIENCE

Frances Bradshaw Houston

MASTERS OF ARTS

Mary Francis Gyles
 Lila Hermann
 Emily Margaret Horton
 Ina Rebecca Howell

Rigdon Wayne Kernodle
 Augustus Ignatius Riedel, Jr.
 Kie Kneeland Sebastian
 Alfred Atwood Whipple

DOCTOR OF PHILOSOPHY

Littleton Upshur, Jr., *Chemistry*

Thesis: The Influence of Position Isomerism on Surface Activity.

DEGREES CONFERRED JUNE 10, 1946

BACHELORS OF ARTS

Thomas Glenn Abell
 Betty Virginia Adams
 Shirley Ades
 Bette Adkins
 Martha Elizabeth Aiken
 Elizabeth McKewn Albergotti
 Sara Helen Alexander
 Katheryn Elmore Allen
 Janet Edna Allsopp
 Doris Ruth Alsobrook
 Elizabeth Andrews
 Katherine Dada Andrews
 David Percy Appleby
 Robert Golden Armstrong, Jr.
 Mary Jane Auten
 Mary Jane Barksdale
 Elizabeth Virdin Barnes
 Joe Hill Barrington, Jr.
 Eleanor Mays Bass
 Walter Murray Bass
 Elaine Alton Bates
 Ruth Virginia Battersby
 Elizabeth Mershon Battle
 Frederick Wharton Bauder
 Selene Rose Behsman
 Evie Pauline Bell
 Dorothy Edna Bennett

Maureen Westhead Bennett
 Mary Elizabeth Black
 Marjorie Jean Blank
 Frances Carter Bleight
 Catherine Augusta Boling
 Ruth Helen Borgstrom
 Betsy Anne Bowman
 Barbara Bayne Boyd
 Herman Davis Bradley
 Florence Audrey Branch
 Arthur M. Brewer
 Robert Strange Bridgers
 *Ruth Elizabeth Brosius
 Percy Whitechurch Brower, Jr.
 Helen Clem Brown
 Marianne Boyd Browne
 Sally Bryan
 William Jefferson Bryson
 Margaret Alice Burk
 Betsy Graves Burke
 Helen Rhyne Burwell
 Betty Lorraine Butler
 Curtis Earl Butler
 Berlette Lorraine Capt
 Robert Joseph Cardillo
 Marilyn Carmichael
 Burtie Ellen Carroll

* Absent by permission.

- *Dudley DeWitt Carroll, Jr.
 *Eleanor Hillyard Carroll
 Julia Billups Carter
 Leslie Ralph Casey
 Willis Robert Casey
 Jane Russell Cather
 Gloria Janet Chapman
 John Bryant Chase, Jr.
 Jane Clark Chesire
 Dorothy Ann Churchill
 Linda Vines Cobb
 Betty Ware Cobbs
 Betty Dixon Codrington
 Helen Cohen
 Marjorie Glyn Cole
 Carroll Carlton Cone
 Allen Marion Cooke
 Robert Elbert Cooper
 Rex Sawyer Coston
 Alice Louise Craig
 William Cato Cramer
 William Ambrose Cranford, Jr.
 *Robert Hope Crawford, Jr.
 *William Thomas Crisp II
 *Arthur James Crowley, Jr.
 May Talbott Crumpler
 John Rhys Davies
 Evelyn Cheek Davis
 Leonard Loeb Deitz
 Paul Nicholas D'Elia, Jr.
 Margaret Huske deRosset
 Elizabeth Stimson Dicks
 *James Price Dillard
 Rebecca Wood Drane
 Carolyn Turner DuVall
 Kathryn Evelyn Eddy
 Ralph William Edsall
 Richard Pierpont Edwards
 Ruth Elizabeth Edwards
 Helen Annice Eidge
 Beverly Jean Eisenberg
 Lois Ruth Eliezer
 Lucy Evelyn Elkins
 Marjorie Wadsworth Epps
 Helen Elizabeth Eyster
 Rebecca Jane Fairley
 Martha Davis Faison
 Ann Ratcliffe Farr
 June Elizabeth Feeley
 Emily Ann Feld
 *Margaret Elaine Finney
 Nancy Adrienne Fitch
 Bernice Allene Flowers
 Robert Langdon Foreman III
 Mary Virginia Freeman
 Bettie Wood Gaither
 Phyllis Ganey
 Ann Helen Geoghegan
 Paul Harding Gerhardt
 Osmine Boyne Givens, Jr.
 Nedra Harriet Goldstein
 Mary Caroline Goodrich
 Margaret Louise Goold
 Elizabeth Hill Graham
 John H. Graham
 William Johnson Graves
 Anne Elizabeth Graybill
 *Norma Rollins Green
 Charles Edward Gremer
 Elizabeth Grimes
 Nina Isabel Guard
 Jean Louise Gunnels
 Jane Brown Gunter
 Dorothy Louise Gustafson
 William Carrington Guy
 Joseph James Hafner
 Kathryn Evangeline Hall
 Charlotte Mary Hamor
 Mary Alice Hampton
 Ann Estes Hancock
 Angela Saunders Hardy
 Catherine Emma Harris
 Patricia Avalon Harry
 Frank Bruce Hatch
 *Robert August Haug
 Bettie Blanche Houghton
 Pauline Haynes
 Jeanne Kendall Hays
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