

1955

1955-1957 Southern Illinois University Bulletin

Southern Illinois University Carbondale

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Announcements for
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BULLETIN

SOUTHERN ILLINOIS UNIVERSITY

VOLUME 48 CARBONDALE, ILLINOIS JULY 1956 NUMBER 3

ANNOUNCEMENTS FOR 1956 - 1958

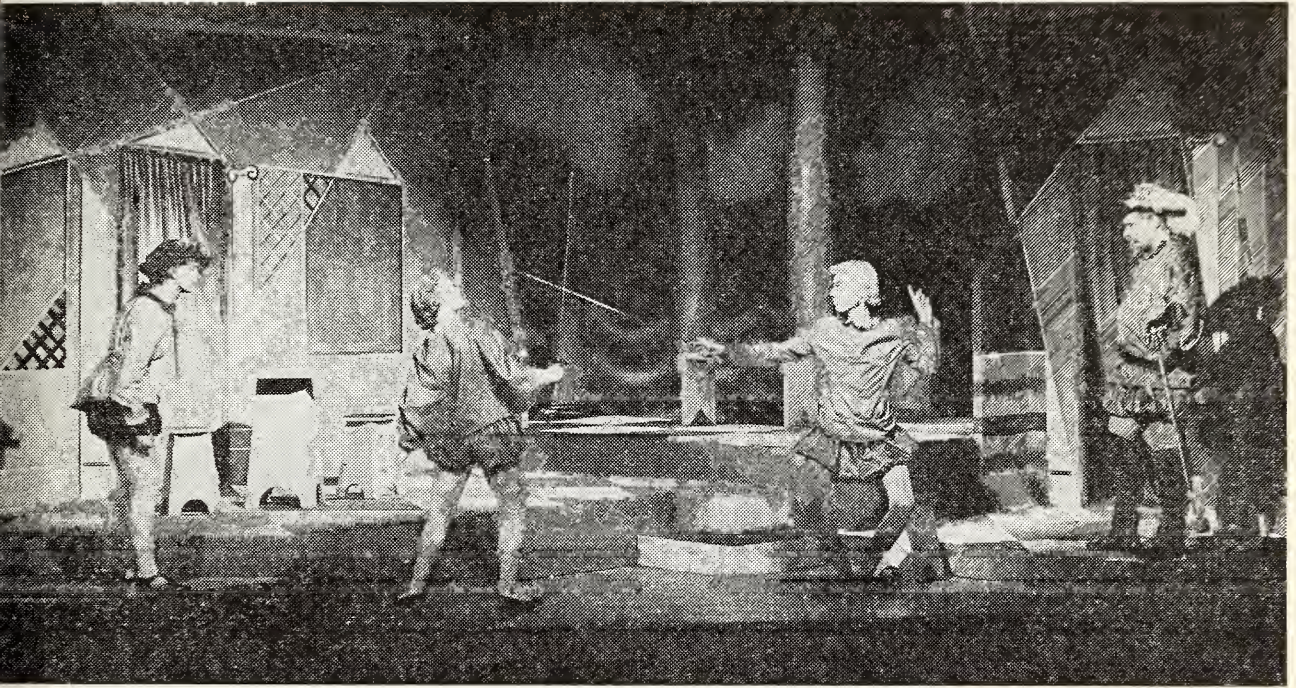
UNDERGRADUATE AND GRADUATE COURSES

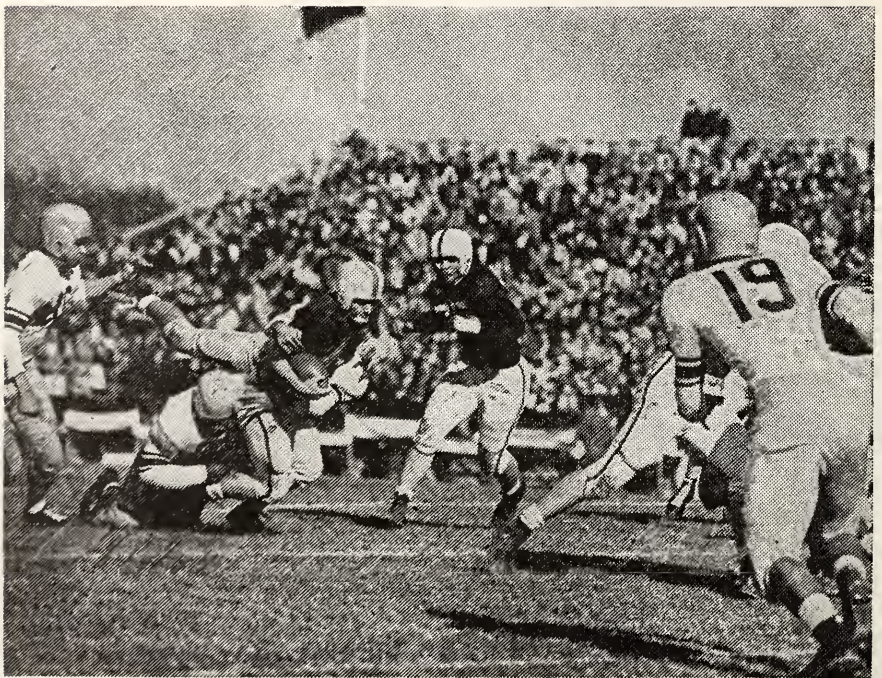
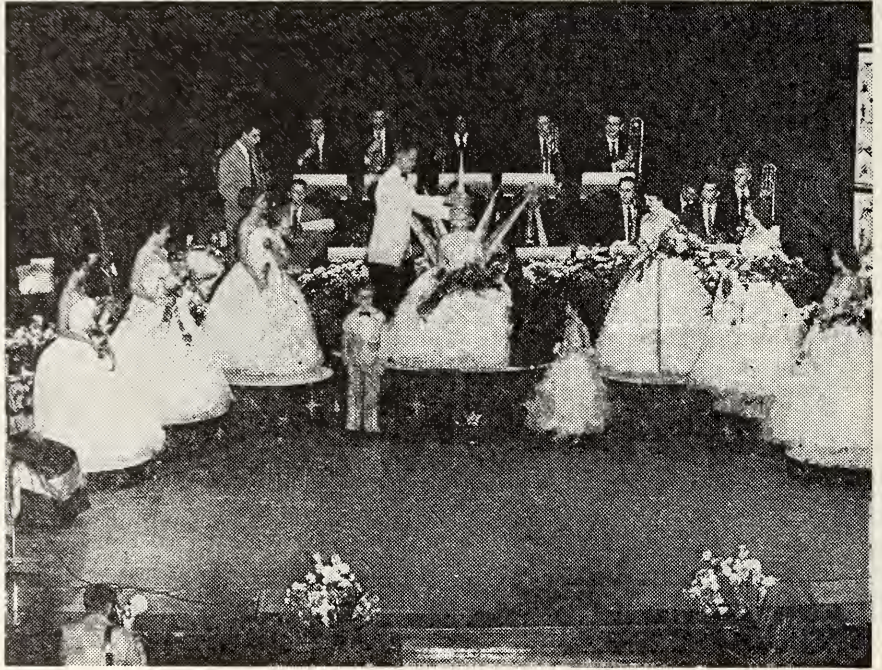


**ENTERED AS SECOND-CLASS MATTER AT THE
POST OFFICE AT CARBONDALE, ILLINOIS
UNDER THE ACT OF AUGUST 24, 1912.**



ACTIVITIES







SOUTHERN
ILLINOIS

• • • • • UNIVERSITY • • • • •

board of trustees

State of Illinois

	TERM EXPIRES
JOHN PAGE WHAM, <i>Chairman</i> , Centralia	1959
LINDELL W. STURGIS, <i>Vice-Chairman</i> , Metropolis	1959
MELVIN C. LOCKARD, <i>Secretary</i> , Cobden	1959
STELLA COLLINS, West Frankfort	1961
KENNETH L. DAVIS, Harrisburg	1957
HAROLD R. FISCHER, Granite City	1957
ROBERT L. KERN, Belleville	1961
VERNON L. NICKELL, (<i>Ex-Officio</i>), Springfield	
LOUISE MOREHOUSE, <i>Recorder</i>	

officers of instruction

DELYTE W. MORRIS
President

CHARLES D. TENNEY
Vice-President for Instruction

The Graduate School,
WILLIS G. SWARTZ, *Dean*

School of Agriculture,
WENDELL KEEPPER, *Dean*

School of Business and Industry,
H. J. REHN, *Dean*

School of Communications,
C. HORTON TALLEY, *Dean*

College of Education,
JOHN E. GRINNELL, *Dean*

School of Fine Arts,
BURNETT SHRYOCK, *Dean*

College of Liberal Arts and Sciences,
T. W. ABBOTT, *Dean*

Division of University Extension,
RAYMOND H. DEY, *Dean*

Division of Technical and Adult Education,
ERNEST J. SIMON, *Dean*

UNIVERSITY CALENDAR

1956-1957

SUMMER SESSION

1956

Session Begins	Monday—June 18
Independence Day Holiday	Wednesday—July 4
Final Examinations	Thursday-Friday—August 9-10
Commencement	Friday—August 10

FALL QUARTER

1956

New Student Week	Wednesday-Sunday—September 19-23
Quarter Begins	Monday—September 24
Thanksgiving Recess	Wednesday, 12 noon-Monday, 8 A.M.—November 21-26
Final Examinations	Thursday-Tuesday—December 13-18

WINTER QUARTER

1957

Quarter Begins	Wednesday—January 2
Final Examinations	Thursday-Tuesday—March 14-19

SPRING QUARTER

1957

Quarter Begins	Wednesday—March 27
Memorial Day Holiday	Thursday—May 30
Final Examinations	Friday-Wednesday—June 7-12
Commencement	Sunday—June 16

HOME COMING, Saturday — October 27, 1956

UNIVERSITY CALENDAR

1957-1958

SUMMER SESSION

1957

Session Begins	Monday—June 17
Independence Day Holiday	Thursday—July 4
Final Examinations	Thursday-Friday—August 8-9
Commencement	Friday—August 9

FALL QUARTER

1957

New Student Week	Wednesday-Sunday—September 18-22
Quarter Begins	Monday—September 23
Thanksgiving Recess	Wednesday, 12 noon-Monday, 8 A.M.—November 27-December 1
Final Examinations	Thursday-Tuesday—December 12-17

WINTER QUARTER

1958

Quarter Begins	Thursday—January 2
Final Examinations	Friday-Wednesday—March 14-19

SPRING QUARTER

1958

Quarter Begins	Wednesday—March 26
Memorial Day Holiday	Friday—May 30
Final Examinations	Friday-Wednesday—June 6-11
Commencement	Sunday—June 15

CALENDAR FOR 1956

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1	..	1	2	3	4	5	6	..	..	..	..	1	2	3	..	..	..	..	..	..	1
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
23	24	25	26	27	28	29	28	29	30	31	..	..	..	25	26	27	28	29	30	..	23	24	25	26	27	28	29
27	28	29	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..

CALENDAR FOR 1957

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	1	2	3	4	5	..	..	..	..	..	1	2	..	..	..	..	..	1	2	..	1	2	3	4	5	6
6	7	8	9	10	11	12	3	4	5	6	7	8	9	3	4	5	6	7	8	9	7	8	9	10	11	12	13
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16	14	15	16	17	18	19	20
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23	21	22	23	24	25	26	27
27	28	29	30	31	..	..	24	25	26	27	28	..	..	24	25	26	27	28	29	30	28	29	30	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	1	2	3	4	..	..	..	..	..	1	2	..	1	2	3	4	5	6	..	..	..	..	1	2	3
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
26	27	28	29	30	31	..	23	24	25	26	27	28	29	28	29	30	31	..	..	..	25	26	27	28	29	30	31
..	..	..	..	..	..	..	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	..	..	1	2	3	4	5	..	..	..	..	..	1	2	1	2	3	4	5	6	7
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
29	30	..	..	..	..	..	27	28	29	30	31	..	..	24	25	26	27	28	29	30	29	30	31	..	..	..	..

CALENDAR FOR 1958

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	1	2	3	4	..	..	..	..	..	1	2	..	..	..	..	..	1	2	..	..	1	2	3	4	5
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31	..	23	24	25	26	27	28	..	23	24	25	26	27	28	29	27	28	29	30	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..	..	..	..	..	..	..	..

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	1	2	3	1	2	3	4	5	6	7	..	..	1	2	3	4	5	..	..	..	..	1	2	3
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31	29	30	27	28	29	30	31	24	25	26	27	28	29	30
..	31

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GENERAL INFORMATION AND EXTENSION

**LOCATION AND CAMPUS
HISTORY**

ACADEMIC STANDINGS

SOUTHERN ILLINOIS UNIVERSITY FOUNDATION

GENERAL OFFICES AND COUNCILS

UNIVERSITY SERVICES

DIVISION OF UNIVERSITY EXTENSION

REGULATIONS AND REQUIREMENTS



SOUTHERN ILLINOIS UNIVERSITY



LOCATION AND CAMPUS

Southern Illinois University is located in Carbondale, in Jackson County. The city is a railroad center and is easily accessible from all directions. The region is noted for its large peach and apple orchards, which in blossom time attract many tourists. Giant City, a state park, is a popular resort to the south of Carbondale, and Crab Orchard Lake, with swimming, boating, and fishing facilities, lies four miles to the east.

The University campus, located at the southern edge of Carbondale, is at present undergoing extensive expansion. It now comprises more than 1,300 acres, and more tracts of land are to be added. The following large permanent buildings form the nucleus of the University's physical plant:

Old Main	1886	McAndrew Stadium . .	1938
Altgeld Hall	1896	Power Plant	1949
Wheeler Building	1903	Service Shops	1951
Allyn Building	1908	University School	1951
Anthony Hall	1913	Woody Hall	1953
Shryock Auditorium . .	1916	Life Science Building . .	1953
Gymnasium	1925	University Library	1956
Parkinson Laboratory . .	1928		

In addition to the campus in Carbondale, there are 200 acres at the Little Grassy Lake Recreational Area, used as an outdoor education summer camp; Southern Acres, in the former administrative area of the Illinois Ordnance Plant, where the Division of Technical and Adult Education and a veterans housing project are located; and some 900 acres devoted to wildlife research.

Until additional space is available, the University is making use of several dozen small temporary buildings. Some of these are converted residences; others were built originally as army barracks and have been transported to the campus for office, classroom, dormitory, apartment, and storage space. They will be given up as permanent space becomes available.

HISTORY

Southern Illinois University was established in 1869 as Southern Illinois Normal University. The shortened name became official in 1947 by action of the state legislature.

In 1874, the first building on the campus was completed, financed by state-appropriated funds and contributions from citizens of Jackson County. In the fall of that year, the first regular academic year for the school, 150 students were enrolled. The student population has increased steadily to over 6,000 resident students and another 1,500 taking off-campus work.

For some years after its establishment, Southern operated as a two-year normal school. In 1907, it became a four-year, degree-granting institution,

though continuing its two-year course until 1936. In 1943, after a vigorous campaign led by President Roscoe Pulliam, the state legislature changed the institution, which had been in theory exclusively a teacher-training school, into a university, thereby taking official recognition of the great demand in the area for diversified training.

The action of the legislature led to establishing Colleges of Education, Liberal Arts and Sciences, and Vocations and Professions, offering the degrees of Bachelor of Science in Education, Bachelor of Arts, and Bachelor of Science. In 1947, the Bachelor of Music degree was approved, and in 1951 the Bachelor of Music Education. The Graduate School, approved in 1943, at first granted only the Master of Science in Education degree. In 1948, it was authorized to grant also the degrees of Master of Arts and Master of Science. In 1952, the degree Master of Fine Arts was added to the list, and in 1956 the Doctor of Philosophy. The Divisions of Communications, Fine Arts, and Rural Studies were established in 1953, and in 1955 became the Schools of Communications, Fine Arts, and Agriculture respectively. The College of Vocations and Professions was dissolved, and a School of Business and Industry was created. The growth of classes for adults and for those seeking technical training led to the establishment in 1953 of the Division of Technical and Adult Education, of which the Vocational-Technical Institute is a part.

The presidents of the University have been:

Robert Allyn	1874-1892
John Hull	1892-1893
Harvey W. Everest	1893-1897
Daniel B. Parkinson	1897-1913
Henry W. Shryock	1913-1935
Roscoe Pulliam	1935-1944
Chester F. Lay	1945-1948
Delyte W. Morris.....	1948-

ACADEMIC STANDING

Southern is accredited by the Commission on Colleges and Universities of the North Central Association in Group IV (as a University), the American Association of Colleges for Teacher Education, the Association of American Colleges, and the National Association of Schools of Music.

SOUTHERN ILLINOIS UNIVERSITY FOUNDATION

The Southern Illinois University Foundation is a non-profit corporation chartered by the state and authorized by the Board of Trustees to receive gifts for the benefit of the University, to buy and sell property, and otherwise to serve the University.

It respectfully asks alumni and other citizens of Southern Illinois to consider making gifts and bequests to benefit the University. Such gifts should be conveyed to the Foundation, with proper stipulation as to their uses. The Foundation, through its officers and members, will be glad to confer with intending donors regarding suitable clauses to insert in wills, and suitable forms for gifts and memorials, including bequests by means of life insurance.

Large or small gifts to the library will be appreciated; likewise, gifts for special equipment, buildings, endowment of professorships in particular subjects, gifts to student loan funds and scholarship funds, gifts for the use of foreign students, and endowments for particular sorts of research. Any gifts or bequests can be given suitable memorial names.

The present officers of the Foundation are

President, Mr. J. Lester Buford, Mt. Vernon.

Vice-President, Mr. Warren Gladders, Clayton, Mo.

Executive Secretary, Mrs. Lois H. Nelson, Southern Illinois University.

Treasurer, Mr. Edward V. Miles, Jr., Southern Illinois University.

GENERAL OFFICES AND COUNCILS

The general offices of the University are the President's Office, the Registrar's Office, and the Business, Personnel, and Auxiliary and Service Enterprises Offices. Attached to the President's Office are the Vice-President for Instruction, the Vice-President for Business Affairs, and the Legal Counsel and Assistant to the President. The Vice-President for Instruction is the general co-ordinator for the instructional and research programs of the University. The Registrar and Director of Admissions is responsible to the President's Office through the Vice-President for Instruction. Responsible to the Vice-President for Business Affairs are the Business Offices which include the Business Manager's Office, the Accounting Office, the Purchasing Office, the Bursar's Office, and the Auditor's Office; the Personnel Office; the Office of Auxiliary and Service Enterprises; and the Student Work Program.

The President is assisted by a number of advisory bodies, including the University Council, which advises him on any matter of University-wide application; the University Council on Campus Development, which recommends policies and plans for the development of the University plant; the University Budgetary Council, which recommends both the annual internal budget and the biennial budget request; and the Council on Intercollegiate Athletics, which exercises control over the athletic program of the University.

There are other University Councils, including the University Instructional Aids Council, which advises the Vice-President for Instruction concerning the programs of the University Library, the University Museum, the University Book Rental Service, the Audio-Visual Aids Service, and the University Statistical Service; the Faculty Council, which makes recommendations concerning the University curriculum, requirements for degrees, and admission of students (subject to the review of the University Faculty); the Graduate Council, which advises the Dean of the Graduate School concerning programs for advanced degrees; the Educational Service Council, which advises those concerned with the off-campus educational program of the University; and the Campus Journalism Council, made up of both students and faculty members, which concerns itself with the programs of various student publications such as the *Obelisk* and the *Egyptian*.

There is also a Secretary of the University Faculty, who serves as the University's record-keeper and parliamentarian, secretary of the Faculty Council, and central scheduling officer for all special events and meetings.

GENERAL ADMINISTRATIVE OFFICES

OFFICE OF THE PRESIDENT

PRESIDENT DELYTE W. MORRIS, PH.D. (IOWA)	1948
LEGAL COUNSEL AND ASSISTANT TO THE PRESIDENT JOHN S. RENDLEMAN, J.D. (ILLINOIS)	1951
SECRETARY TO THE PRESIDENT LOIS H. NELSON, M.S. IN ED. (ILLINOIS)	1948
FIELD REPRESENTATIVE CHARLES E. FEIRICH, B.J. (MISSOURI)	1953-54, 1955-56
RECORDER CHARLES D. BUTLER, B.A. (SOUTHERN ILLINOIS)	1955

GENERAL INSTRUCTION

VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
SECRETARY OF THE UNIVERSITY FACULTY ELBERT FULKERSON, M.A. (ILLINOIS)	1932
RESEARCH ASSISTANT JANE CRICHTON, B.ED. (SOUTHERN ILLINOIS)	1948-52; 1955

REGISTRAR'S OFFICE

REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. MCGRATH, PH.D. (IOWA)	1949
ASSOCIATE REGISTRAR AND DIRECTOR OF ADMISSIONS WILLIS E. MALONE, PH.D. (OHIO STATE)	1939
SUPERVISOR SUE J. EBERHART, M.S. IN ED. (SOUTHERN ILLINOIS), ASSISTANT REGISTRAR	1948
SUPERVISOR ALDEN M. HALL, B.S. (BRADLEY), ASSISTANT REGISTRAR	1953

BUSINESS AFFAIRS

VICE-PRESIDENT FOR BUSINESS AFFAIRS GEORGE H. HAND, PH.D. (PRINCETON)	1952
DIRECTOR OF PERSONNEL OFFICE MAX SAPPENFIELD, PH.D. (ILLINOIS)	1954
DIRECTOR OF AUXILIARY AND SERVICE ENTERPRISES PAUL ISBELL, M.S. (ILLINOIS)	1952
ASSISTANT DIRECTOR OF AUXILIARY AND SERVICE ENTERPRISES CARLTON J. RASCHE	1951
SUPERVISOR OF FOOD SERVICES FREEMAN L. SCHRODT, LL.B. (NORTHWESTERN)	1954
SUPERVISOR OF CAMPUS SERVICES EARL MORGAN, B.ED. (SOUTHERN ILLINOIS)	1955

BUSINESS MANAGER

BUSINESS MANAGER EDWARD V. MILES, JR., A.M. (ST. LOUIS)	1919
ASSISTANT BUSINESS MANAGER ROBERT L. GALLEGLY, A.M. (ILLINOIS)	1946
PURCHASING AGENT WILLIAM V. CONNELL, B.S. (ILLINOIS)	1954
CHIEF ACCOUNTANT WARREN E. BUFFUM, B.A. (WASHINGTON)	1950
BURSAR THOMAS J. WATSON, B.S. (SOUTHERN ILLINOIS)	1953
AUDITOR FRANK DUSEK	1952

GENERAL INFORMATION

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COUNCILS

THE UNIVERSITY COUNCIL

D. W. Morris, <i>Chairman</i>	W. C. McDaniel, 1956
John S. Rendleman, <i>Secretary</i>	Robert A. McGrath
I. Clark Davis	Ted R. Ragsdale, 1957
Milton Edelman, 1956	C. Horton Talley, 1956
George H. Hand	Charles D. Tenney
R. V. Lee	William J. Tudor
Willis E. Malone, 1956	Kenneth A. Van Lente, 1957

THE FACULTY COUNCIL

D. W. Morris, <i>Chairman</i>	Frank L. Klingberg, 1957
Charles D. Tenney, <i>Vice-Chairman</i>	Douglas E. Lawson, 1958
Elbert Fulkerson, <i>Secretary</i>	Bonnie Lockwood, 1956
T. W. Abbott	J. S. McCrary, 1958
William T. Andrew, 1957	Wilbur C. McDaniel, 1956
Mary Noel Barron, 1957	Willis E. Malone, 1958
Willard A. Benson, 1957	William M. Marberry, 1957
James G. Benziger, 1956	J. W. Neckers, 1958
Clyde M. Brown, 1957	Phillip H. Olsson, 1956
E. C. Coleman, 1958	Loretta Ott, 1958
Dorothy Davies, 1957	Frances K. Phillips, 1958
Raymond H. Dey	John F. Plummer, Jr., 1956
Claude J. Dykhouse, 1956	Dalias A. Price, 1957
Robert D. Faner, 1958	Ted R. Ragsdale, 1957
Robert L. Gallegly, 1958	William L. Randle, 1956
Elizabeth A. Greenleaf, 1958	Henry J. Rehn
John Erle Grinnell	Mildred Schrotberger, 1957
Chalmer Gross, 1957	Burnett H. Shryock
George H. Hand, 1957	Ernest J. Simon
Robert A. Harper, 1956	Elizabeth O. Stone, 1956
John F. Hosner, 1957	Willis G. Swartz
W. E. Keeper	C. Horton Talley
Noble H. Kelley, 1957	Maxine Vogely, 1958
David T. Kenney, 1958	William O. Winter, 1957

THE GRADUATE COUNCIL

Willis G. Swartz, <i>Chairman</i>	Robert A. Harper, 1958
David T. Kenney, <i>Secretary</i>	Henry J. Rehn
T. W. Abbott	Clarence D. Samford, 1956
Ernest E. Brod, 1957	Burnett H. Shryock
Robert D. Faner, 1957	C. Horton Talley
Eugene D. Fitzpatrick, 1956	Charles D. Tenney
John E. Grinnell	John W. Voigt, 1958

THE EDUCATIONAL SERVICE COUNCIL

Charles D. Tenney, <i>Chairman</i>	Oliver W. Beimfohr, 1956
Elbert Fulkerson, <i>Secretary</i>	I. P. Brackett, 1956
T. W. Abbott	Roye R. Bryant, 1957

Raymond H. Dey
 Claude J. Dykhouse, 1957
 John Erle Grinnell
 W. E. Keepper
 Leland P. Lingle, 1957
 R. W. McMillan, 1956

Henry J. Rehn
 Burnett H. Shryock
 Ernest J. Simon
 Willis G. Swartz
 C. Horton Talley
 William J. Tudor

THE UNIVERSITY INSTRUCTIONAL AIDS COUNCIL

Charles D. Tenney, *Chairman*
 Robert D. Faner, 1957
 Anna Carol Fults, 1956
 Cameron W. Garbutt, 1956
 Chalmer A. Gross, 1956
 Donald A. Inqli

John Charles Kelley
 Howard R. Long, 1957
 Ralph E. McCoy
 Abraham Mark
 W. B. Schneider, 1957
 Carl Trobaugh

THE COUNCIL ON INTERCOLLEGIATE ATHLETICS

D. W. Morris, *Chairman*
 Orville Alexander, *Vice-Chairman*,
 1956
 A. Frank Bridges, *Secretary*, 1958
 Leedio Cabutti, 1956
 Carl Erickson
 John G. Gilbert (Alumnus), 1956

George H. Hand
 W. A. Howe, 1959
 Jim McKinstry (Student), 1956
 Alexander R. MacMillan, 1956
 Roswell D. Merrick
 Jack Morgan (Student), 1956
 William J. Tudor, 1957

THE CAMPUS JOURNALISM COUNCIL

Clyde Reynolds (Student),
Chairman, 1956
 Kenneth Carter (Student), 1956
 William Eidson (Student), 1956
 Gaylord Hayden (Student), 1956

Howard R. Long, 1956
 William H. Lyons, 1956
 Robert Martin (Student), 1956
 Dixiana Rast (Student), 1956
 Edward Stibitz, 1956

THE UNIVERSITY COUNCIL ON CAMPUS DEVELOPMENT

D. W. Morris, *Chairman*
 George H. Hand, *Vice-Chairman*
 Charles M. Pulley, *Secretary*
 I. Clark Davis
 Gen. Robert W. Davis, 1956

W. A. Howe
 Edward V. Miles, Jr.
 John S. Rendleman
 Charles D. Tenney
 W. J. Tudor

THE UNIVERSITY BUDGETARY COUNCIL

D. W. Morris, *Chairman*
 Charles D. Tenney, *Vice-Chairman*
 George H. Hand, *Executive Officer*
 Robert L. Gallegly, *Secretary*

Oliver W. Beimfohr, 1957
 W. C. McDaniel, 1957
 Edward V. Miles, Jr.

THE UNIVERSITY EDITORIAL BOARD

Charles D. Tenney, *Chairman*
 Paul Isbell, *Secretary*
 I. Clark Davis

George H. Hand
 William J. Tudor

UNIVERSITY SERVICES

STUDENT AFFAIRS

ACTING DIRECTOR OF STUDENT AFFAIRS AND DEAN OF MEN I. CLARK DAVIS, ED.D. (INDIANA), ASSOCIATE PROFESSOR	1949
ASSISTANT DEAN OF MEN ROBERT F. ETHERIDGE, M.S. IN ED. (SOUTHERN ILLINOIS), INSTRUCTOR	1949
DEAN OF WOMEN MILDRED SCHROTBERGER, M.A. (WISCONSIN), INSTRUCTOR	1952
ASSISTANT DEAN OF WOMEN LORETTA OTT, M.S. IN ED. (SOUTHERN ILLINOIS), INSTRUCTOR	1948

The services of the Student Affairs Office are designed to assist the individual student develop his personal, vocational, and social abilities and interests. All staff members are available for discussion of problems which may confront a student. These counselors are also available to consult with parents, guardians, instructors, and other interested parties.

The functional divisions of the Student Affairs Office are the Counseling and Testing Service, the Student Activities Office, and the Student Special Services Office, which includes Housing and Financial Assistance.

COUNSELING AND TESTING

ASSOCIATE PROFESSOR JACK W. GRAHAM, PH.D. (PURDUE)	1951
LECTURER MARGARET S. GARDNER, M.S. IN ED. (SOUTHERN ILLINOIS)	1953-56

The Counseling and Testing Service works in co-operation with the Academic Advisement Program, Student Health Service, Psychological Services Center, Speech and Hearing Clinic, the Department of Guidance and Special Education, and related departments to assist college students to use their talents productively and to plan realistic goals for themselves.

The Counseling and Testing Service is staffed with professional counselors and is approved by the Committee on Professional Practices of the American Personnel and Guidance Association. Services to students are provided without charge except for a few selected tests for which there are small fees.

Counseling with students undecided about their majors and those who desire to change colleges or schools, counseling with students planning to withdraw from the University, and interviewing freshmen students are some of the specific functions of this Service. Related services provided by the Counseling and Testing Service include:

TESTING

The Service arranges for testing and providing interpretation of group and individual tests, which may assist in personal, educational, and vocational counseling.

VOCATIONAL INFORMATION

To aid further in vocational planning, the Counseling and Testing Service has a file of selected pamphlets, monographs, and books cataloged to afford authentic information about vocational requirements, trends, and opportunities. This file is available in the Student Affairs Office. A similar file is provided in the University Library.

VETERANS INFORMATION

Counseling services have been arranged to meet the special needs of students who are veterans, to assist them in filing claims, and to advise them during training. The veteran should go to the Office of Student Affairs or the Registrar's Office for information concerning his benefits under federal and state laws. Forms required for receiving those benefits may be secured and completed in the Registrar's Office. For information as to University credit for military experiences, see page 38.

MILITARY SERVICE INFORMATION

One of the staff members has been designated as a Military Service Information Consultant for the University. An up-to-date file of literature and reports on all branches of the military service, as well as current information of interest to college students regarding the selective service, the military reserve programs, and special training programs, is maintained. Reports on a student's status and academic progress are made by the Registrar's Office to the appropriate Selective Service Board.

MARRIAGE COUNSELING

A staff member of the Sociology Department is available for conferences with students on pre-marital and marital problems. Appointments may be made directly through the Sociology Department.

STUDY SKILLS

A course in reading and study techniques is regularly offered by the staff of the Department of Education. The Office of Student Affairs and the academic advisers assist in recommending students for the class. Students who have a desire to improve their reading skills or study habits should enroll in this non-credit program. General assistance in improving study skills and making more effective use of time is provided by the counseling staff on an individual basis.

PRE-COLLEGE COUNSELING

High school seniors who are contemplating entering college may obtain counseling to assist them in their decision concerning the type of program they might best pursue. General information regarding college and university requirements and opportunities is provided.

Visits each year are made to high schools by staff members from the University to assist in College Days and Career Days.

TEST ADMINISTRATION

The Counseling and Testing Service provides a complete service in test administration. An extensive file of individual and group achievement, aptitude, personality, and interest tests is available for use in conjunction with the counseling interviews. Selected tests are also administered for various departments of the University for selection, counseling and research purposes. The Guidance Test Battery described on page 36 of this bulletin is also administered to new students by this service.

NATIONAL TESTING PROGRAMS

Southern Illinois University has been approved as a test center for several national testing programs. The Graduate Record Examination, the

Medical College Admission Test, and the Law School Admission Test are administered each year for students seeking entrance to graduate or professional schools. The Miller Analogies Test and the Minnesota Engineering Analogies Test, which are required by many graduate schools as a basis for admission, are also given. The Selective Service College Qualification Test is given on the announced dates each year.

Information regarding the above tests and additional tests such as the Dental Aptitude Test, National Teachers Examination, and others may be secured by consulting the Office of Student Affairs.

CORRESPONDENCE COURSE FINAL EXAMINATIONS

Students desiring to take the final examinations for correspondence courses from other universities may consult the Office of Student Affairs in order to take the examination under approved supervision.

G. E. D. TESTING PROGRAM

On the first Friday and Saturday of each month, the Counseling and Testing Service administers the Tests of General Educational Development. Residents of Illinois over 21 years of age, who present a letter from their high school principals stating that diplomas will be granted upon their successful completion of the tests, are eligible to take these tests.

TEST SCORING SERVICE

An electric scoring machine is available for scoring tests for faculty members, research departments, and schools in the area. Assistance in the construction and standardization of objective tests is provided by staff members.

STUDENT ACTIVITIES

SUPERVISOR OF STUDENT ACTIVITIES ELIZABETH GREENLEAF, Ed.D.
(INDIANA)

1952

Southern Illinois University encourages a broad student activity program with opportunities for all students to participate. The many organizations augment the student's educational experiences by assisting him in learning how to plan and to carry out responsibilities, how to work with others, how to make wise use of leisure time, and how to develop leadership.

The Student Activities Office assists all campus groups in planning, conducting, and evaluating their activities and programs. Additional information may be obtained about organizations and various activities from the student handbook SOUTHERN STYLE or from the Office of Student Affairs.

The range of activities at the University covers student governing groups; departmental, honorary, and professional organizations; service groups; social fraternities and sororities; special interest groups; religious organizations; and all-campus committees for special events.

Student Council

STUDENT GOVERNING GROUPS

Composed of two men and two women from each class, this group is the official organization designated to represent the students in student

welfare, student activities, student participation in university affairs, and student participation in university planning and administration.

Social Senate

Composed of fifteen members representing major campus groups, the Social Senate is an arm of the Student Council. It recommends policy on social regulations, approves all student money-raising functions and provides a certain number of all-campus events, such as Christmas Week.

Student Union Board

This group is responsible for the activity program in the Student Union and for making recommendations on the organization and functioning of the Student Center. A separate Student Center is to be found on the Southern Acres campus and is governed by the Southern Acres Student Council.

Association of Women Students

These women work closely with the Dean of Women in recommending rules and regulations for women students and in providing a varied program in social and group experiences for women students.

Living Groups Councils

Living groups co-ordinate their activities through governing councils. Major groups include the Woody Hall House Council, the Men's Residence Halls Council, and the Off-Campus Men and Women's House President's Councils.

DEPARTMENTAL, HONORARY, AND PROFESSIONAL ORGANIZATIONS

Departmental Clubs

Most of the academic departments have one or more interest groups which allow majors in special areas to become better acquainted with one another and with the faculty and to investigate further their special interests.

Honorary Societies and Professional Fraternities

Students outstanding in academic achievement or in special fields may be eligible to belong to many of the national and local honorary and professional organizations existing on Southern's campus. Membership serves as a means of becoming better acquainted with others in the same field and gives professional recognition often valuable after graduation.

Service Groups

Three service groups serve campus events by assisting with arrangements and serving as guides. These groups are Alpha Phi Omega (Honorary Boy Scouting), Circle K (affiliated with Kiwanis International), and Girls Rally.

Social Fraternities and Sororities

Southern has seven national sororities, eight national fraternities, and three local fraternities. Most of the groups maintain their own houses. The Panhellenic Council serves as a governing group for the sororities and the Inter-fraternity Council serves as a governing council for the fraternities.

SPECIAL INTEREST GROUPS

Groups organized to bring together those individuals with like interests are found in many fields. One of the strongest of these groups is the Independent Student Association, which serves to bring together a large group of students for social and fellowship purposes.

A number of organizations in music, speech, and dramatics offer opportunities for students to gain experience. The AF ROTC has a number of special interest groups including the Honor Guard, a Rifle Team, a Flying Club, and the Angels Flight, an interest group for women. The Women's Athletic Association provides an active intramural program. The Men's Athletic Department provides an intramural program as well as a varsity program in all major sports. In addition, the Recreation and Outdoor Education Department has a year-round recreational schedule. Hobby groups are organized in the Student Union and in many of the living centers.

RELIGIOUS ORGANIZATIONS

Six active religious foundations plus a seventh religious student group are represented on the Interfaith Council. This Council, composed of students and ministerial representatives, serves in an advisory capacity to the Office of Student Affairs on problems concerning the students' religious life, and it plans Religion in Life Week. The churches of Carbonale take an active interest in the religious life of the students, and many students affiliate with the local churches of their own choices.

MAJOR CAMPUS COMMITTEES

Many students contribute to the campus life by serving on committees for planning major campus events. Outstanding groups include steering committees for New Student Week, Homecoming, Christmas Week, Parents Day, High School Guest Day, Hospitality Weekend, and the Spring Festival.

LEADERSHIP TRAINING

Special emphasis is placed on giving students an opportunity to handle themselves in discussion groups. In the fall a special Leadership Camp is held for entering students, and in the spring a special camp is held for officers of campus organizations. In addition many of the groups hold their own workshops to discuss their own interests and needs.

STUDENT SPECIAL SERVICES

HOUSING

DEAN OF WOMEN MILDRED SCHROTBERGER, M.A. (WISCONSIN)	1952
SUPERVISOR OF MEN'S RESIDENCE HALLS WILLIAM M. ROGGE, M.S. (WISCONSIN)	1951
SUPERVISOR OF CHAUTAUQUA STREET HOUSING CARLTON F. RASCHE	1951
ACTING HEAD RESIDENT OF MEN'S RESIDENCE HALLS JACK C. BUCKLE, M.A. (SYRACUSE), LECTURER	1955-56
RESIDENT COUNSELOR OF SOUTHERN ACRES RESIDENCE HALLS JOSEPH BUDDE, B.S. (SOUTHERN ILLINOIS), ASSISTANT SUPERVISOR	1954-56

RESIDENT COUNSELOR OF ANTHONY HALL JAMES M. BURGOYNE, M.B.A. (WISCONSIN), INSTRUCTOR	1955
HEAD RESIDENT OF WOODY HALL JANET BRACKENRIDGE, M.A. (SYRACUSE), INSTRUCTOR	1954
BUSINESS MANAGER OF WOODY HALL MAXINE VOGELY, A.M. (CORNELL), INSTRUCTOR; ASSISTANT HEAD RESIDENT	1947
RESIDENT COUNSELOR IN WOODY HALL MARY S. MYERS, M.ED. (ILLINOIS), LECTURER	1955-56
SUPERVISOR OF OFF-CAMPUS HOUSING MABEL PULLIAM	1945

In the University-operated residence halls, professional counselors and resident fellows are responsible for assisting students to develop a well-balanced program, including proper amounts of study, rest, and relaxation. Adequate lounges and recreation and study rooms are provided to encourage activities for such a program. In off-campus housing, the householders, in co-operation with the Supervisor of Off-Campus Housing, plan a similar program.

All persons accepted as students of the University are subject to the housing and social rules approved by the University. Students may not move from approved off-campus houses within a quarter without the consent of the Supervisor of Off-Campus Housing, and contracts in the residence halls are for the entire school year.

University Housing

Application forms for University residence halls may be obtained from the Office of Student Affairs or the Office of Auxiliary Enterprises. Each application requires a five dollar deposit. Students who desire to live in University residence halls are advised to make application early. Contracts are not offered a student until he has been officially admitted to the University, but admission to the University does not guarantee housing. The University establishes its rates in keeping with current costs and reserves the right to change the rates quoted, should the cost of food and operations necessitate doing so.

Woody Hall, a new four-story residence hall which provides comfortable living quarters and dining facilities for 422 women students, is located conveniently to the campus on the corner of University and Grand Avenues.

Dowdell Halls, temporary buildings which accommodate 200 men, are located on the Southeast part of the campus. Meals for residents may be obtained at the University Cafeteria.

Anthony Hall, which provides room and board for 80 men, is located on the campus.

Illinois Avenue Residence Hall, located near the campus, provides living accommodations for 50 men students.

Thompson Point Residence Halls include a series of newly constructed housing units, each to accommodate 120 men; two of these units will be opened in Fall Quarter, 1956, with four additional ones to be available in 1957-1958.

Chautauqua Co-operatives accommodate 48 men who, in groups of six, do all their own work, including cooking.

Southern Acres Residence Halls are located on the Vocational-Technical Institute campus, ten miles east of Carbondale. Housing accommodations include two halls, with 140 men in each hall. Students who attend classes on the campus in Carbondale are provided with hourly bus service free of charge. There is a cafeteria on the campus for the convenience of the students living there.

Chautauqua Street Apartments, located on the main campus, provide housing for students with families. Each apartment has a kitchenette, living room, bathroom, and two bedrooms.

Southern Acres Apartments are located on the Vocational-Technical Institute Campus. These apartments include a kitchenette, living room, bathroom, and one, two, or three bedrooms. Bus transportation is furnished for children of school age.

Off-Campus Housing

Current lists of available rooms in private homes for both men and women may be obtained from the Supervisor of Off-Campus Housing, Office of Student Affairs. It is strongly recommended that students and parents see rooms before engaging them, as renting by mail has so often been found to be unsatisfactory. The signing of written agreement forms which clearly define the terms on which rooms are rented is strongly urged. The University furnishes written agreements to all approved homes. Meals for the most part must be obtained at the University Cafeteria and eating places in Carbondale although a few homes serve meals, provide co-operative eating arrangements, or permit kitchen privileges.

FINANCIAL ASSISTANCE

ASSISTANT PROFESSOR ERWIN D. STASEK, PH.D. (NORTHWESTERN) 1955 ✓

The program of financial assistance at the University has two main objectives: (1) to assist needy and deserving students in financing their University education and (2) to contribute to the individual's general and educational development while participating in such a program.

The program of financial assistance includes Scholarships, Awards, Grants-in-Aid, Private Agency Awards, Prizes, and Student Loan Funds.

The degree of financial need is an important consideration in determining the recipients of many of the forms of financial assistance available. The actual amount received by any one student from any of these sources will not ordinarily be sufficient to meet all of his University expenses. It is necessary, therefore, that the student be prepared to supplement such assistance as may be granted with private funds.

Before a student's application for any of the forms of financial assistance can be considered, it is necessary that he submit an application for admission to the University. This should be done shortly after the close of the applicant's seventh semester of high school. Proper forms may be obtained from the Admissions Office of the University.

Completed applications for all forms of financial assistance administered by the Scholarships and Loans Committee of the University must be submitted between January 1 and March 15 of the year prior to the September the applicant wishes to be considered for the award. Applications submitted at other times are subject to possible disqualification.

Applicants will be notified of decisions concerning their applications between April 15 and June 1 of the year in which the application is submitted.

In addition to the financial assistance programs outlined in the following pages, students should refer to the Graduate School, page 283, concerning assistantships and fellowships, and to the Student Work Program, page 21, for information about student employment.

A more detailed description of the University's financial assistance program is presented in a brochure on Financial Assistance which may be obtained from the Office of Student Affairs or the Admissions Office.

Scholarships

Ordinarily, freshman applicants for scholarships are required to have ranked in the upper-half of their graduating class and to have achieved a minimum comprehensive high school average equal to that of a "C." Enrolled students at the University must have achieved a minimum overall average for all course work completed at the university or college level of "B" (4.0).

Scholarships currently in existence at the University include:

Donald Forsythe Unit #514 Scholarship (American Legion Auxiliary)

Benjamin Franklin Scholarship (See page 168 for information.)

Francis Marion Hewitt Senior Scholarship in Art

Fraternal Order of Eagles, Murphysboro Area #670

Illinois Congress of Parents and Teachers Association Scholarship

Illinois Congress of Parents and Teachers Special Education Scholarship

Johnson Foundation Chemistry Scholarship

June Vick Memorial Scholarship

Leah M. Reef Memorial Scholarship

Prairie Farmer Publishing Company Scholarship in Agricultural Journalism

President's Awards

Plumbers and Steamfitters Local #160 Scholarship

Roscoe Pulliam Memorial Alumni Scholarship

Southern Illinois University Faculty Mine Memorial Scholarship

Thelma Louise Kellog Scholarship in English

William Pulverman Memorial Scholarship

Awards

To be eligible for awards, freshman applicants are required to have ranked in the upper-half of their graduating class or to have achieved a minimum comprehensive high school average of "C." Enrolled students must have achieved a minimum overall average of "C" (3.0) for all work completed at the university level.

Awards currently in existence at the University include:

Anita Ray Early Memorial Scholarship

BPOE #1243 Educational Fund Scholarship

Murphysboro BPOE #572 Scholarship

Presser Foundation Music Scholarship
 Saluki Award Fund
 Southern Illinois District Council Activity Award
 Varsity Alumni Lettermen's Club Scholarship

Southern Illinois University Scholarships and Activity Awards. The Board of Trustees of the University has established 225 awards known as Southern Illinois University Scholarships and Activity Awards. These awards cover remission of tuition at the University for one year and are awarded annually to qualified prospective and enrolled students.

For awards available to AF ROTC cadets see page 70.

Grants-in-Aid

Organizations or individuals frequently establish funds at the University to assist certain students with their educational expenses. Usually, such students are selected by the donor, although recommendations are sometimes made through the Scholarships and Loans Committee or the various departments of the University.

Grants-in-aid currently in existence at the University include:

American Legion Clifton Post #421—Cleveland, Ohio
 Aviston Chamber of Commerce—Aviston, Illinois
 Beverly Hills University Club Scholarship Fund—Illinois
 Bonalynn Chism Scholarship Award—Bone Gap, Illinois
 Business and Professional Women's Club—Carbondale, Illinois
 Carbondale Community High School P.T.A. Scholarship—
 Carbondale, Illinois
 Lions Activity Award—Carbondale, Illinois
 Olin Scholarship—East Alton, Illinois
 Sigma Gamma Rho Award—East St. Louis, Illinois
 Mt. Olive Association Scholarship—Colp, Illinois
 Murphysboro Shrine Club Scholarship—Murphysboro, Illinois

Private Agency Awards

Several industries and private organizations have provided funds to students at the University in order to assist them with their educational expenses. Applications for these awards must generally be directed to the donor; however, the University will assist interested students in this matter, in so far as possible.

Private agency awards currently in existence at the University include:

Aluminum Corporation of America
 Charles Evans Memorial Scholarship
 Frank Gannet Newspaperboy Scholarship
 Fourth Object Scholarship Fund District #149—Rotary
 International
 George M. Pullman Educational Foundation
 Henry L. Doherty Educational Foundation Scholarship
 National Association of Manufacturers Scholarship
 Ohio Oil Company Scholarship
 PTA Golden Jubilee Scholarship
 Scherer Foundation Award

Stonefort American Legion Post #400 Scholarship
25th District Illinois Federation of Women's Club Scholarship
and Award

Prizes

A number of prizes are awarded to students who have evidenced superior achievement in specific areas or departments of the University. Presentation is usually made at the Honors Day Program in the Spring.

Prizes currently in existence at the University include:

Betty Rhodes Memorial Scholarship—Delta Sigma Epsilon
Janice Neckers Memorial Scholarship—Sigma Sigma Sigma
Joe Dougherty Award—Tau Kappa Epsilon
Mallarme Prize in French Studies
Phi Beta Kappa Prize
Robert Wichmann Memorial Scholarship—Sigma Tau Gamma
Sigma Pi Memorial Fund
Southern Illinois Symphony Orchestra Award

Student Loan Funds

For those students who need financial assistance of a temporary nature, there are several loan funds available at the University. Two basic requirements apply to most of these funds: (1) the applicant must be more than a first quarter student, and (2) he must have a minimum overall University average of "C" (3.0). Amounts which may be borrowed vary with the individual loan funds, but generally freshman and sophomore students are permitted to borrow a maximum of \$50, while juniors, seniors, and graduate students are permitted to borrow a maximum of \$150. The rate of interest and methods of repayment vary with the particular loan fund, but the usual rate of interest on funds administered directly by the University is 3 per cent.

Student loan funds currently in existence at the University include:

UNIVERSITY LOAN FUNDS

Carbondale Rotary Club Student Loan Fund
General Student Loan Fund
Harwood Hall Student Loan Fund
Householder's Loan Fund
Illinois Congress of Parents and Teachers Loan Fund
Inter-Fraternity Council Student Loan Fund
Jane Holloway Loan Fund
Malvine Beck Educational Student Loan Fund
Petty Cash Loan Fund
W. O. Brown Student Loan Fund

SOUTHERN ILLINOIS UNIVERSITY FOUNDATION LOAN FUNDS

Helen A. Shuman Memorial Fund
Lucy K. Woody Student Loan Fund
William and Mary Gersbacher Student Loan Fund
William McAndrew Memorial Student Loan Fund
W. W. Vandever Student Loan Fund

In addition to the various forms of financial assistance administered through the Scholarships and Loans Committee, there are additional forms of assistance available to students at the University as follows:

State Teacher Training Scholarships

State Teacher Training Scholarships are awarded each year through the office of the State Superintendent of Public Instruction. Graduates of recognized high schools who are in the highest third of their graduating classes are certified by the principals to county superintendents, who transmit these names to the Superintendent of Public Instruction. The Superintendent, in turn, may award scholarships to the highest ranking graduates who signify their intentions to prepare to teach in the Illinois Public Schools. This Scholarship is valid for four calendar years from date of issue and covers the student's tuition, matriculation, activity, and other fees. It does not include building fund or laboratory fees or similar fees for supplies and materials used. Holders of these Scholarships must apply for admission to the University not later than August 15 of the year in which the Scholarship is awarded. If a Scholarship holder does not register within ten days after the beginning of the next regular term following receipt of the Scholarship, or, having registered, if he withdraws from the University, he forfeits his Scholarship; and it is returned to the appropriate county superintendent for issuance to the next highest ranking student as shown on the list submitted to the Superintendent of Public Instruction. Any student holding a Scholarship who satisfies the President of the University that he requires a leave of absence for the purpose of earning funds to defray his expenses while in attendance or on account of illness may be granted such a leave. A leave may be granted for a maximum of two years. At this University, application for a leave of absence should be made through the Registrar's Office.

Benefits

Vocational rehabilitation.—Under the State Board for Vocational Education is a division for the vocational rehabilitation and placement in remunerative employment of persons whose capacity to earn a living is or has been impaired. This includes those with physical handicaps of various kinds. Approved students receive all registration and tuition fees, book rental, and school supplies for nine months a year.

Persons who wish to consult with a representative are welcome to call at the Carbondale Field Office, located at 205½ East Main Street. Students from other parts of the state now receiving training through the State of Illinois Division of Vocational Rehabilitation may consult any representative of the Board.

Federal assistance for veterans of military service.—Educational benefits for most veterans of World War II have lapsed. Training under Public Law 346 ceases after July 25, 1956, except for a few special cases. A person having a service-incurred disability may qualify as a recipient of benefits under Public Law 16 or 894, the latter being an amendment to Public Law 16. Public Law 16 is intended for veterans who received their disability between September 16, 1940, and July 25, 1947, while Public Law 894 is intended for veterans who received their disability between

June 27, 1950, and an unestablished date in the future. Under Public Laws 346, 16, or 894 the veteran's tuition, fees, special equipment and supplies, and subsistence will be paid for by the United States Government through the Veterans Administration.

Persons who have been in active military service after June 27, 1950, who have served at least ninety days, and who have been discharged under conditions other than dishonorable may be eligible for educational benefits under the Veterans Readjustment Assistance Act of 1952 (Public Law 550 or "Korean G.I. Bill"). Veterans eligible for training under both Public Law 346 and 550 may not receive more than a maximum of forty-eight months' training. Maximum training under Public Law 550 is thirty-six months or four school years, figured at the rate of one and one-half days of training for each day of service. A veteran must initiate his training by August 20, 1954, or within three years after discharge. Only one change in program is allowed under Public Law 550; therefore, a veteran should be extremely careful in filling out his application for training form. A veteran enrolled in a full-time course will receive a monthly education and training allowance amounting to \$110.00 with no dependents, \$135.00 with one dependent, and \$160.00 with more than one dependent. A veteran must pay his own tuition and fees under Public Law 550.

Application forms and more complete information concerning these benefits may be obtained from the Registrar's Office or the Office of Student Affairs, the Veterans Administration, or the local Illinois Veterans Commission Office. Veterans should apply for training prior to enrolling.

Experience has shown that a period of two or three months elapses before a veteran participating in such a program receives his first check. It is advisable, therefore, that each veteran be prepared to finance himself in the first two or three months during his first quarter in attendance.

Illinois military scholarship.—Any person who served in the Armed Forces of the United States during World I or World War II (including all service between September 16, 1940, and an undetermined date to be established in the future) may be eligible for the benefits of the Illinois Military Scholarship. To be eligible a person must have been (1) a resident of the State of Illinois at the time of entering the service; or, if not an Illinois resident, a student at Illinois State Normal University, Northern Illinois State Teachers College, Eastern Illinois State College, Western Illinois State College, Southern Illinois University, or the University of Illinois at the time of his enlistment or induction; and (2) honorably discharged.

This Scholarship is awarded for four calendar years or for sufficient time to enable the veteran to complete his course of study provided this time does not exceed four calendar years. It may be used for resident or off-campus study and covers matriculation, tuition, activities, or other fees, except laboratory fees and similar fees for supplies and materials. Application for this Scholarship should be directed to the Registrar's Office and must be accompanied by a copy of the discharge. Award will be made only to veterans possessing all necessary entrance requirements.

After a veteran has been awarded a Scholarship, he must use it on a continuing basis. Any period of absence not covered by an approved leave of absence will result in the loss of the Scholarship. Leaves may be granted for a maximum of two years for reasons of illness or to earn funds to defray expenses while in attendance. Requests for leaves of absence should be directed to the Registrar's Office.

The Governor's committee for veterans rehabilitation and employment.—This Committee will assist any veteran, but gives aid primarily to ex-service men and women with impaired health or with limited physical abilities. Such persons may receive, at state expense, vocational training and education, plus health restoration treatments and prosthetic appliances. After proper training, they are given assistance in obtaining employment.

STUDENT WORK PROGRAM

SUPERVISOR CLARENCE W. STEPHENS, ED.D. (INDIANA)	1952
ASSISTANT SUPERVISOR ALICE P. RECTOR, ED.D. (WASHINGTON UNIVERSITY), ASSISTANT PROFESSOR	1946

The Student Work Program assists students in obtaining employment to defray a portion of their educational expenses as well as to gain experience while working. Since it is impossible to guarantee work to every applicant, prospective students who expect to earn part of their expenses, and who do not have definite appointments to positions before coming to college, should have means of support for at least three months. Students who expect to earn a large part of their expenses should plan to carry reduced academic loads. The Program provides job opportunities as follows:

(a) Students employed on the campus are paid according to an established schedule, in which rates are based upon off-campus experiences as well as upon the number of years of satisfactory service to the University. Employment by the University on a part-time basis is provided for some 1,000 or more students in the following fields: clerical, typing, and stenographic; library, laboratory, and museum; research and survey; agricultural and gardening; janitorial, maintenance, and repair; police and security; and miscellaneous jobs.

(b) Private employment is sometimes obtained by the students themselves, but the Student Work Program receives calls for temporary or part-time jobs in the community and area and offers these to interested students. These calls are continuous throughout the year and usually require immediate placement.

(c) Students are assisted in finding summer jobs at resorts, in governmental agencies, in business, and on farms, in order that they may gain additional experience and provide themselves with funds for the following school year.

For information as to assistantships for graduate students, see page 283 or write to the Dean of the Graduate School.

Requests for student-employment application forms should be sent to the Student Work Program, Mr. Clarence Stephens, Supervisor.

LECTURES, ENTERTAINMENTS, AND EXHIBITS

At Southern Illinois University, the general education of the student is advanced not only by the courses required for all degrees but also by a planned program of lectures, concerts, recitals, plays, and exhibits.

In order to establish in students a continuing interest in such matters, a freshman convocation is held each week. Outstanding lecturers, musicians, artists, scientists, explorers, and educators appear before the freshmen to acquaint them with developments in various fields of interest and concern. Attendance is required of all students classified as freshmen.

A number of upper-class seminars are being arranged in the hope of providing additional opportunities for the continuing cultural advancement of students.

In addition, the Committee on Lectures and Entertainment and the Carbondale Community Concert Association frequently bring to the campus nationally-known individuals and groups. In 1953-54 there were such outstanding features as the St. Louis Symphony, Eugene Conley, the Tucson, Arizona, Boys Choir, and the Rey and Gomez Spanish Dance Team; in 1954-1955, Rise Stevens, the DePaur Infantry Chorus, the Totenberg Assembly, and Leon Fleischer; in 1955-56, the Robert Shaw Chorale, the Philharmonic Piano Quartet, Leonard Rose, Leonard Warren, and Marina Svetlova.

Academic departments also bring to the campus nationally and internationally known experts in their fields for lectures and for conferences and workshops. Lecture series on "Man's Control of Man" and "Writers and Revolutions" have been given in the past three years, featuring both Southern and visiting faculty members. In addition, musical and dramatic presentations by student organizations and by individual students are offered to the public at various times throughout the year.

Regular concerts are given by the Southern Illinois Symphony Orchestra, the Symphonic Band, the University Choir, and the Madrigal Singers. Properly qualified students are presented from time to time in solo recitals. Each Sunday afternoon Vesper Recitals are held.

In the Christmas season, a performance of Handel's oratorio, *The Messiah*, is given in Shryock Auditorium by the Southern Illinois Oratorio Society, made up of students and singers of Southern Illinois, guest soloists, and the Southern Illinois Symphony Orchestra.

Dramatic productions are presented by the Southern Players. This group offers to all students opportunities for practical experience in every phase of dramatic production: acting, stagecraft, costuming, lighting, publicity, and business. Some of the plays presented in recent years have been *The Silver Cord*; *Goodbye, My Fancy*; *Medea*; *Born Yesterday*; *Twelfth Night*; *Blithe Spirit*; *Midsummer Night's Dream*; and *My Three Angels*.

The Department of Art schedules constantly-changing exhibitions of painting, sculpture, crafts, photographs, and prints in its Gallery in the Allyn Building. Lectures, demonstrations, and teas are given in the Gallery by the Department in connection with each exhibition for students, faculty, the community, and the area. Visitors and school groups are always welcome. From time to time, the University Library and the University Museum present exhibits of general interest.

UNIVERSITY HEALTH SERVICE

DIRECTOR RICHARD V. LEE, M.D. (ILLINOIS), UNIVERSITY PHYSICIAN, ASSOCIATE PROFESSOR	1955
UNIVERSITY PHYSICIAN KATERINA KALNINS, M.D. (LUDVIG MAXIMILLIAN-MUNICH), ASSOCIATE PROFESSOR	1954
ASSISTANT INSTRUCTOR HELEN THOMAS GOETZ, R.N. (ST. LUKE'S)	1946

The primary purpose of the University Health Service is to cultivate in students both physical and emotional health.

The most helpful basis for aid comes from the student's individual health folder, for which the Health Service collects all available data. Blank forms are sent to the student applying for admission to the University. One of these, the medical-history record, the student will process, in accordance with specific instructions and with the assistance of parent or guardian. The other, the home-physician's record, will contain that physician's findings, based upon his thorough examinations of the prospective student. Later, during orientation, the student will receive supplementary physical tests not included in his home examination. Results of these tests; all records of specialized examinations, immunizations, illness, and treatments; and all accounts of emotional upsets, of necessary communications with home physician or specialists, or of any other health matters will be entered into a personal health folder and will be kept available for consultation and reference during the student's entire attendance at school.

Other functions of the Health Service are supervision of environmental factors which could become health hazards, and immunization against disease.

Students are encouraged to call at the Health Service when any physical or emotional condition arises to interfere with progress. Treatment will be given or, if necessary, the student referred immediately to a hospital, clinic, or specialist, for expert treatment. When hospitalization is needed, the student is placed in the hospital of his choice; and the cost, within a reasonable limit, is covered by the item termed "Hospitalization," included in the Activity Fee required of each student.

The staff of the Health Service consists of qualified, full-time physicians and registered nurses.

AREA SERVICES OFFICE

ACTING DIRECTOR WILLIAM J. TUDOR, PH.D. (IOWA STATE), ASSOCIATE DIRECTOR	1948
SUPERVISOR OF RADIO-TELEVISION BUREN C. ROBBINS, M.A. (IOWA)	1949
ASSISTANT DIRECTOR REX D. KARNES, M.A. (SOUTHERN ILLINOIS)	1955-56

As the only fully-accredited institution of higher learning in the southern counties of Illinois, Southern Illinois University has special obligations to its region and therefore attempts to make its facilities available to various community, county, and regional groups. This work is carried on through the Area Services Office and its affiliated offices (the Information Service, the Placement Service, the Community Development Service, and the Alumni Office).

Meetings and conferences on the campus that are under the sponsorship of responsible off-campus organizations and groups are arranged through

the Area Services Office. In addition, the office arranges to take out into the communities of the area various programs, activities, and resources of the University which may be useful to the citizens of Southern Illinois.

The Area Services Office is not, however, to be confused with the Divisions of Extension and of Technical and Adult Education, which conduct the off-campus instructional activities of the University.

The University is equipped with complete and technically professional radio studios, in which a large number and variety of radio programs, from all departments of the University as well as from the Southern Illinois community, are produced under the auspices of the Area Services Office. These air shows, utilizing the talents of students, University staff members, and citizens of the area, are designed for both information and entertainment and are broadcast over about eight of the Southern Illinois area radio stations on regular schedules.

In charge of this radio activity is a full-time staff member with professional radio experience. Complete training is furnished in all aspects of radio: announcing, radio acting, writing, production and studio procedures, as well as technical phases. Every attempt is made to simulate actual professional station operational conditions. In order to participate in this radio work a student need not necessarily pursue courses in radio or in speech. Periodic auditions are held, and participants are welcomed from all departments of the University.

COMMUNITY SERVICES

DIRECTOR RICHARD W. POSTON, B.A. (MONTANA)	1953
ASSISTANT DIRECTOR JOHN B. BARNES, ED.D. (WYOMING), ASSISTANT PROFESSOR	1955
FIELD REPRESENTATIVE ALICE BEARDSLEE, M.P.H. (MICHIGAN)	1954
FIELD REPRESENTATIVE EUGENE F. BUNKER, JR., M.A. (MILLS COLLEGE)	1955
FIELD REPRESENTATIVE CARL S. HARM, M.A.S.A. (OHIO STATE)	1955
FIELD REPRESENTATIVE BERTIS L. JONES, M.S. (MINNESOTA)	1954
FIELD REPRESENTATIVE VAN HENRY SEAGRAVES, B.A. (REED)	1954
FIELD REPRESENTATIVE FRANK H. SEHNERT, B.S. (NEW HAMPSHIRE)	1955
FIELD REPRESENTATIVE DANIEL TANNER, PH.D. (OHIO STATE)	1955

The University Community Service has as its objectives the stabilization and enrichment of life in the small communities as well as in the large centers of the area. It attempts to make available to the people of the area within the context of their own communities and occupations the University's resources in social and economic knowledge and its leadership in the cultural and community arts.

To these ends it sets up projects designed to explore the specific problems of the communities and to train local leaders able in some measure to meet them.

The University Community Service also invites to the University leaders in various fields in the communities of the area; and through small conferences and larger conventions, as well as various other media, it attempts to bring into closer association the best thinking both of the area and of the University.

ALUMNI OFFICE

DIRECTOR JOHN ROBERT ODANIELL, B.S. IN ED. (SOUTHERN ILLINOIS) 1951
 FIELD REPRESENTATIVE JACOB W. KING, B.S. (SOUTHERN ILLINOIS) 1955

The Alumni Office keeps address and personal information files and serves as the headquarters for the Alumni Association. The Association is the general organization of the graduates and former students of Southern Illinois University.

Any person who has attended Southern for as much as one term is eligible for membership in the Association. Annual dues are \$2.00, and life membership can be obtained for \$50.00, payable, if desired, in ten annual installments. The Southern Alumnus, News Bulletin and Magazine editions, are published by the Alumni Office. The Magazine is published for the dues-paying members of the Association; the News Bulletin is sent to all alumni.

In addition to the general Association, there are local Alumni Clubs in Illinois, throughout the country, and in Honolulu. These clubs serve as a nucleus to renew memories and loyalties to the Alma Mater, to keep abreast with progress and development of the University, and to join with the Alumni Association and its programs in a continuous effort to promote the advancement, usefulness, and prestige of Southern.

For information, address the Director of the Alumni Office, Southern Illinois University.

INFORMATION SERVICE

DIRECTOR WILLIAM H. LYONS, M.A. (COLORADO) 1951
 INSTRUCTOR JOHN W. ALLEN, EMERITUS (1956) 1942
 LECTURER EDMUND C. HAHESEY, B.J. (MISSOURI) 1953

The Information Service is the official news agency of the University. It was established to serve both the students and the University through the dissemination of news and items of general interest to newspapers, magazines, and radio stations. The primary purpose of the Service is to keep the people of Illinois informed of the activities of the University and to make known the achievements of the students and staff.

PLACEMENT SERVICE

DIRECTOR ROYE R. BRYANT, ED.D. (WASHINGTON UNIVERSITY) 1948
 PROFESSOR WILLIS G. CISNE, A.M. (CHICAGO), EMERITUS (1945) 1916
 ASSISTANT SUPERVISOR JANE R. TIERNEY, A.B. (ILLINOIS) 1954

The Placement Service is maintained for the benefit of students, graduates, and others who have attended the University, and who desire to find employment in the teaching field, in the professions, or in business. It also serves employers by helping them locate personnel.

The facilities of the Placement Service are free to candidates seeking positions, as well as to employers. Each degree candidate is requested to register with the Placement Service during the Fall Quarter. This cooperation will aid the record-keeping function as well as the placement function of the office. Credentials are sent to prospective employers at the request of either the candidate or the employer.

The Placement Service is a member of the National Institutional Teacher Placement Association, the Illinois Institutional Teacher Placement Association, the Midwest College Placement Association, and the Association of School and College Placement.

Inquiries should be addressed to the Director of the Placement Service.

UNIVERSITY LIBRARIES

DIRECTOR RALPH E. MCCOY, PH.D. (ILLINOIS)	1954
ASSISTANT DIRECTOR FOR PUBLIC SERVICES E. OPAL STONE, M.S. IN L.S. (ILLINOIS), ASSISTANT PROFESSOR	1929-1936; 1946
ASSISTANT DIRECTOR FOR TECHNICAL SERVICES FERRIS S. RANDALL, B.L.S. (CHICAGO), ASSISTANT PROFESSOR	1953

PUBLIC SERVICES

EDUCATION LIBRARIAN ZELLA CUNDALL, B.S. IN L.S. (ILLINOIS) ASSISTANT PROFESSOR	1946
ASSISTANT EDUCATION LIBRARIAN RUTH E. BAUNER, M.S. (ILLINOIS), INSTRUCTOR	1956
HUMANITIES LIBRARIAN ALAN M. COHN, M.A. (WASHINGTON UNIVERSITY), INSTRUCTOR	1955
ASSISTANT HUMANITIES LIBRARIAN GRACE E. KITE, M.A. (COLUMBIA), ASSISTANT PROFESSOR	1941
SCIENCE LIBRARIAN HARRY R. SKALLERUP, M.A. (MINNESOTA), INSTRUCTOR	1955
ASSISTANT SCIENCE LIBRARIAN MARY BELLE MELVIN, B.S. IN L.S. (ILLINOIS), INSTRUCTOR	1947
SOCIAL STUDIES LIBRARIAN JOHN CLIFFORD, PH.D. (IOWA), ASSISTANT PROFESSOR	1955
ASSISTANT SOCIAL STUDIES LIBRARIAN RUBY KERLEY, A.M. IN L.S. (MICHIGAN), ASSISTANT PROFESSOR	1935-1942; 1948
UNIVERSITY SCHOOL LIBRARIAN MARJORIE W. STULL, M.S. IN ED. (SOUTHERN ILLINOIS), INSTRUCTOR	1942

TECHNICAL SERVICES

CATALOG LIBRARIAN KENT U. MOORE, A.M. (COLUMBIA), INSTRUCTOR	1952
ASSISTANT CATALOG LIBRARIAN GOLDA HANKLA, M.A. (ILLINOIS), INSTRUCTOR	1938
ASSISTANT CATALOG LIBRARIAN DOROTHY E. HEICKE, M.A. IN L.S. (ILLINOIS), ASSISTANT PROFESSOR	1947
ORDER LIBRARIAN JOHN G. W. MCCORD, B.S. IN L.S. (ILLINOIS), INSTRUCTOR	1951
SERIALS LIBRARIAN JAMES E. TYDEMAN, M.A. (CHICAGO), INSTRUCTOR	1955

AUDIO-VISUAL SERVICES

DIRECTOR DONALD A. INGLI, M.A. (MINNESOTA), ASSISTANT PROFESSOR	1947
ASSOCIATE PROFESSOR PAUL R. WENDT, PH.D. (MINNESOTA)	1955
INSTRUCTOR GORDON K. BUTTS, ED.D. (INDIANA)	1950

THE LIBRARY SYSTEM

The University library system consists of four subject libraries (Education, Humanities, Science, and Social Studies), an Audio-Visual Department, and a Textbook Rental Service, all housed in the general library building. There are also a branch library in the University School and one in the Vocational-Technical Institute. The work of acquiring and cataloging library materials is performed by the Technical Services Division.

SPECIAL FACILITIES

Most of the books in the University Libraries are arranged in "open stacks," enabling students and faculty members to browse freely. The library building provides a lounge for informal study and for reading current newspapers and periodicals of a general nature. Graduate students have a special study area and locker facilities. Group study areas are also provided in each subject library. A browsing room, furnished informally, contains books of current information in many fields. Individual and group listening rooms permit students and faculty members to use the record collection in the Humanities Library. Preview rooms in the Audio-Visual Department provide for individual and group viewing of films. Facilities for use of microfilm, microprint, and microcard are also provided in the subject libraries. An exhibit hall enables the library to display some of its choice materials. A collection of sample "paperback" books of high quality is maintained to enable students and faculty to select items for their personal libraries, and orders are taken for these publications. The Library also furnishes specially-selected collections, which are rotated periodically among the University dormitories. The library staff is prepared to assist patrons in locating special books and other materials, in finding general and specific information on any topic, and in giving instruction in the use of bibliographical tools.

GENERAL RESOURCES

The University Libraries contain approximately 175,000 volumes (including bound government documents, bound periodicals, and books), plus a collection of some 50,000 maps, a curriculum and textbook collection of more than 4,700 books and 2,700 curriculum guides and courses, an amateur play collection of approximately 1,200 items, and a collection of approximately 900 long-playing phonograph records. The Library subscribes to some 1,600 periodicals and to 50 newspapers, some on microfilm. The Library is a partial depository for Federal and Illinois state printed documents and for the Army Map Service. It also subscribes to United Nations printed documents that are issued in microprint form. The Audio-Visual Department has approximately 2,300 films (16mm.) and 800 filmstrips available for both on and off campus use.

SPECIAL COLLECTIONS

Among the special resources of the University Libraries is a collection of *Lincoliana* and *Americana*, contributed in 1944 by Clint Clay Tilton, a Danville newspaper publisher. The Library's extensive music collection

has been augmented in recent years by gifts of books and musical scores from Mrs. Robert P. Bates of Chicago, in memory of her sister, Emma Lansden. The University is rapidly developing a collection of books by and about Walt Whitman as a result of the beneficence of the Detroit industrialist and Whitman scholar, Charles Feinberg. Mr. Feinberg has also presented the University with choice examples of private press books.

AUDIO-VISUAL SERVICES

The Audio-Visual department of the Library has two primary functions—on-campus and area services. Campus users are provided with the various types of projection service. Films from Southern's library and many from other sources are provided for campus and extension classes.

The department, as an audio-visual center for Southern Illinois, provides aid to schools and other agencies. This program includes both consultation service and rental of audio-visual materials, particularly films. Where the need is indicated and time permits, extension courses are offered at centers in the area served by the University. Plans include a course for graduate students, a series of conferences for teachers and educators, both in the area and on the campus, and audio-visual institutes designed to serve the interests and needs of teachers and administrators.

The department has equipment and laboratory facilities for producing educational audio-visual materials and for microfilming books and manuscript materials.

TEXTBOOK SERVICE

As part of the services of the University Libraries, a textbook rental system is operated for the benefit of students. Each quarter students are furnished with the basic textbooks required for their courses. The books are returned at the end of the quarter, but students interested in purchasing any of them for their personal libraries may do so at a reduced cost.

ARCHIVES

As a first stage in the development of a Southern Illinois archival collection, the Library has acquired approximately one thousand volumes of Southern Illinois newspapers, representing 67 titles from 48 communities. These papers, dating back to the decade prior to World War I, were transferred to Southern from the University of Illinois Library. The files of the Carmi newspaper, dating back to the 1870's were transferred to Southern from the Illinois State Historical Library. The University Libraries also have a small but growing collection of books, maps, manuscripts, and records dealing with the Southern Illinois region and are interested in acquiring further materials of this nature which will be useful in research in local history.

BIBLIOGRAPHICAL FACILITIES

To assist library patrons to locate books, the Library has provided a central card catalog which consists of an author, subject, and sometimes title entry for all books in the University Libraries. In addition, an author and topical (shelflist) catalog is maintained in each subject library. National

and book trade bibliographies, including the printed catalog of the Library of Congress, are located in the bibliography room in the main building. Periodical indexes and printed bibliographies on various subjects are housed in the appropriate subject libraries. The Audio-Visual Department maintains a printed catalog of its film holdings.

MUSEUM

DIRECTOR J. CHARLES KELLEY, PH.D. (HARVARD)	1950
ASSISTANT PROFESSOR CHARLES H. LANGE, PH.D. (NEW MEXICO)	1955
ASSISTANT PROFESSOR CARROLL L. RILEY, PH.D. (NEW MEXICO)	1955
INSTRUCTOR ESTHER V. BENNETT, M.S. (SOUTHERN ILLINOIS)	1949
INSTRUCTOR LORAINÉ L. WATERS, M.S. IN ED. (SOUTHERN ILLINOIS)	1947
RESEARCH ASSISTANT RUSSELL PEITHMANN	1955-56

The Southern Illinois University Museum is newly located on the ground floor of Altgeld Hall. It is dedicated to research and exhibition in all fields of natural sciences and social studies. The central theme of both research and exhibition is the human occupancy and natural environment of Southern Illinois. Exhibits in the new museum quarters will portray the physiography, climate, and wildlife of the region, together with the various ways of life developed by Indians, pioneer Americans, and modern citizens.

The Museum now has extensive collections in the field of the natural sciences, including specimens pertaining to such studies as herpetology, mammalogy, ornithology, paleontology, mineralogy, and botany. In the social studies collections are included several thousand artifacts representative of pioneer American life in Southern Illinois, many rare books and documents of historical interest, and archeological specimens illustrative of many of the prehistoric Indian cultures of Southern Illinois, Northern Mexico, and the Southwestern United States.

In the field of history, pioneer life is vividly portrayed by a series of miniature dioramas as well as by larger displays which feature pioneer arts and crafts. Other dioramas depict the wild life of Southern Illinois in its natural habitat. In the field of art, the wood carvings of Fred Meyers have attracted much attention. Six of these carvings depict typical Southern Illinois pioneers, while others are replicas of extinct and living animals.

The research program of the Museum in the past has featured work in zoology, botany, history, and archeology. The founder of the Museum, Cyrus N. Thomas, was not only a student of local natural history but also one of the pioneer archeologists of the Mississippi River valley. The Museum has issued several publications in history and zoology and plans to publish various popular and technical papers in connection with its research program.

The Museum offers a variety of extension services. Museum teaching units and individual specimens are available for loan to Southern Illinois schools. On request, exhibits will be prepared for state and local fairs, as well as for historical and cultural observances and regional development projects. On the campus the Museum will loan specimens and, if they are desired, prepare classroom exhibits for other University departments. Museum staff members are available for public or classroom lectures in

their respective fields. The Museum is also a repository for specimens and collections in natural science and social studies. Donations of specimens and collections are invited, and long-term loans of such materials will be gratefully accepted. Irreplaceable scientific and historical specimens will be given proper treatment and storage in the Museum, to assure their preservation as well as to make them accessible to the people of this region.

The museum is open to visitors from 8:30 A.M. to 4:30 P.M. on week days, and on Saturdays from 9 A.M. until noon. Conducted tours of the exhibits may be arranged for classes and other groups.

UNIVERSITY STATISTICAL SERVICE

ACTING DIRECTOR PHILIP J. COCHRANE, B.S. (ILLINOIS)

1956

Among the various offices of the University serving both on-campus and off-campus groups is the University Statistical Service.

The Statistical Service is concerned with the processing of data concerning Southern Illinois and the programs and activities of the University. In addition, the Statistical Service offers technical assistance to various campus offices and research projects.

To facilitate this work, the Statistical Service maintains a tabulating office equipped with punched-card machines. The tabulating office also acts as a service unit for those offices which can make use of punched-card equipment.

CHILD GUIDANCE CLINIC

PROFESSOR W. A. THALMAN, PH.D. (CORNELL)

1929

The Child Guidance Clinic was established in 1936. With special aid and guidance given by the Illinois Institute of Juvenile Research, it has expanded its services to many communities and schools in Southern Illinois.

The Clinic works in co-operation with the various divisions of the State Department of Public Welfare as well as with administrators and teachers of both public and private schools, with county judges, with physicians, and with parents. The staff includes social workers, physicians and nurses, and specialists in diagnostic and remedial reading and mathematics. Seventy per cent of the cases studied come from the first seven grades of the elementary school. The other thirty per cent are adolescents and adults.

The Child Guidance Clinic has several major functions:

1. The primary objective of the Clinic is to assist in the training of those who plan to enter the profession of teaching. The specialized courses which are being offered give to pre-service and to in-service teachers a better understanding of the growth and the development of the normal child and a recognition of some of the characteristics of the child or adolescent who needs help.

2. As a part of the teacher-training program with which the Clinic is associated, special emphasis is placed upon the various tests and techniques necessary for the teacher's discovering the specific difficulties responsible for the student's inability to read well on his particular grade level. Teachers are also trained to use the diagnostic tests in mathematics

and language and to gain experience in learning the techniques necessary for the remedying of the difficulties which the student is having.

The study of the "whole" child as emphasized by the Clinic includes the family history; the school history; the complete physical examination; the study of personality; the measuring of intelligence; the administering of tests of achievement; and the diagnosis in the various subject-matter fields.

3. It is also the function of the Clinic to examine the various cases which are brought to the campus throughout the year. Many of the individuals brought into the Clinic are those having difficulties in their school subjects or in environments in which they are not understood.

4. Another purpose of the Clinic is to furnish consultative services to the campus training schools; to in-service teachers; to school administrators; to parents; to nurses and public health officials; to county judges; and to the personnel of various Child Welfare Agencies in Southern Illinois.

5. The work of the Clinic is closely allied with the studies in the Department of Education, the Department of Guidance and Special Education, and the campus training schools. Practically all of the students in the College of Education include in their preparation some of the courses which have been a part of the program of the Clinic for some time.

Additional information regarding the services of the Clinic, including the requests for the examination of cases, may be obtained from the Director of the Clinic.

PSYCHOLOGICAL SERVICES

DIRECTOR NOBLE H. KELLEY, PH.D. (IOWA)

1951

PSYCHOLOGICAL COUNSELING

The Department of Psychology offers to students in the various schools of the University professional services in psychotherapy. Professional services offered include counseling interviews and personality appraisal. Appointments may be made at the Psychology Office.

PSYCHODIAGNOSTIC SERVICES

This service includes assessment of intellectual functions and comprehensive personality evaluations. It is utilized in the regular program in Counseling Psychology and is available also to other professional persons and to agencies and institutions in Southern Illinois.

CONSULTING SERVICES TO COMMUNITY GROUPS

The staff of the Department of Psychology and of the Psychological Services Center is available for consulting services to institutions, agencies, and groups on the psychological aspects and problems of personal and social relations.

Members of the staff conduct adult study and discussion programs at the convenience of interested persons.

Forums on the psychology of Human Relations are available, on request, to community organizations, clubs, and groups. These forums include the utilization of films and plays, in conjunction with group discussion under the direction of a psychologist.

CONSULTING SERVICES IN INDUSTRIAL PSYCHOLOGY

The Psychological Services Center offers to business and industrial organizations a consulting service on problems of selection and placement, safety and accidents, supervision and training, attitudes and morale, and other problems where psychological factors are related to work satisfaction and efficiency.

THE UNIVERSITY PRESS

DIRECTOR VERNON STERNBERG, M.A. (WISCONSIN) 1956

The University Press was established in 1953 to carry out the publishing and printing functions of the University. Publications of the Press include two monograph series, as well as works of scholarship of more general interest. A list of Press books may be found in the publishers' *Trade List Annual*. For further information on monograph series books on library exchange address Director of Libraries, Southern Illinois University.

Other publications issued by the University include regular session, summer session, and Graduate School catalogs; special bulletins; *The President's Report*; *The Annual Report of the Business Manager*; *The Registrar's Report*; and *The Southern Alumnus*, a quarterly published for alumni.

ART SERVICE

SUPERVISOR LEONARD W. KITTS, B.A. (ROLLINS COLLEGE),
INSTRUCTOR 1955
SUPERVISOR HAROLD C. SCHWARM, M.A. (BRADLEY), INSTRUCTOR 1955

The Art Service, a department of the University Press, has several chief functions. First, it provides to student groups and to University departments and agencies advice, design suggestions, and finished art for publications, posters, and graphic material. Secondly, it serves as a laboratory for students who are interested in advertising art, and provides them with opportunities to engage in practical work in that particular field. Finally, it is responsible for the design and art work of general University publications.

DUPLICATING SERVICE

SUPERVISOR EARL E. PARKHILL, B.S. IN ED. (SOUTHERN ILLINOIS) 1950

In addition to the printing that is contracted off campus, the University needs such printed material as registration schedules, bulletins, catalogues, directories, office forms, form letters, letterheads, etc.

The Duplicating Service, a department of the University Press, is equipped to do mimeographing, letterpress printing, and offset printing.

PHOTOGRAPHIC SERVICE

SUPERVISOR C. WILLIAM HORRELL, ED.D. (INDIANA) 1949
ASSISTANT SUPERVISOR CARL NORMAN ENGLAND, M.S. (SOUTHERN
ILLINOIS) 1956

The Photographic Service, a department of the University Press, is equipped and staffed to serve virtually every photographic need on the campus. Its services are available to all University departments and to

student activities such as the *Obelisk* and *Egyptian*. These activities cover news and publicity photography; teaching aids such as slides, photocopying, film strips, photomicrography, photostats, and motion pictures; exhibits and murals; and identification photos, portraits, and color photography for special uses. Some of the facilities of the laboratories are available to University courses in photography.

OFFICE OF THE UNIVERSITY ARCHITECT

DIRECTOR CHARLES M. PULLEY, B.S. (ILLINOIS)	1951
CONSTRUCTION SUPERVISOR WILLARD C. HART, B.S. (ILLINOIS)	1950
LANDSCAPE ARCHITECT JOHN F. H. LONERGAN, A.B. (ILLINOIS)	1950
ASSISTANT PROFESSOR JAMES J. CASEY, M.A. IN ARCH. (FLORIDA)	1955

The University Architect's Office is concerned with the design and construction of University buildings and with the landscaping of the campus. The members of the staff are available to advise and instruct students interested in architecture.

PHYSICAL PLANT

DIRECTOR WILLIAM A. HOWE, M.S. (ILLINOIS)	1949
ASSISTANT PROFESSOR WILLIAM M. MARBERRY, A.M. (ILLINOIS)	1939

The Physical Plant Office is concerned with the operation and maintenance of the physical plant, including the maintenance and repair of buildings, utilities distribution systems, equipment, and other property; the care of sidewalks, drives, lawns and shrubbery; the operation of the heating plant and the transportation service; and the maintenance of general safety and sanitary conditions in the buildings and grounds.

DIVISION OF UNIVERSITY EXTENSION

DEAN RAYMOND H. DEY, ED.D. (WASHINGTON UNIVERSITY)	1946
ASSOCIATE DEAN ERNEST J. SIMON, M.S. (ILLINOIS)	1950
ASSISTANT DEAN R. JEAN FLIGOR, PH.D. (MICHIGAN STATE)	1941
DIRECTOR OF RESIDENCE CENTER HAROLD W. SEE, ED.D. (INDIANA)	1955
FIELD REPRESENTATIVE JESS W. TURNBOW, B.A. (GREENVILLE)	1955

The Division of University Extension is an agency of the University whose purpose is to make college courses offered by the University available to those who are not in residence. It calls upon the various instructional agencies of the University for the personnel used to carry out its program.

Southern Illinois University is a member of the National University Extension Association. Its program meets the rigid standards set up by this organization.

The activities of the Division are organized in the following manner in order better to facilitate their promotion.

EXTENSION CREDIT CLASSES

Scheduling off-campus college credit classes has been an important activity of the Division of University Extension since it first began functioning about twenty-five years ago. The program was originally designed for public school teachers and administrators. It has been expanded, however, to serve many other groups, as well as the general public. Present policy provides

for the scheduling of a class whenever fifteen or more qualified people indicate their intention of enrolling in it, provided that a staff member for that particular subject is available at that particular time.

A maximum of one-half of the total number of credits required for the bachelor's degree may be earned through extension classes, and up to sixteen quarter hours for the master's degree.

Many courses that are given in residence are regularly offered through extension, and, when satisfactorily completed, are given the same credit as residence work. All instructors of these extension courses are members of the regular University faculty, and the work offered meets all of the requirements of the American Association of Colleges for Teacher Education and the North Central Association of Colleges and Secondary Schools.

The tuition fee for credit courses is \$13.05 for a four quarter hour course, which includes the rental of any textbooks which the instructor may decide to have the class use. No student may be admitted after the second meeting of the class, and a \$2.00 late registration fee is charged for those registering after the first meeting.

RESIDENCE CENTER

In order better to serve the highly populated general St. Clair-Madison County area, a Residence Center office has been established on the Mezzanine Floor of the Broadview Hotel in East St. Louis. Those interested in obtaining services of any kind from Southern Illinois University may call Mr. Harold W. See, Director, at telephone number Upton 53925.

At the present time courses offered at Belleville are designated as residence courses, not extension courses. The Tuition Fee at Belleville is \$4.00 per quarter hour, with a matriculation fee of \$5.00 for graduate students registering for the first time at Southern Illinois University (there is no matriculation fee for undergraduate students). There is also a \$1.05 Textbook Rental Fee per course. As much as 24 quarter hours of graduate credit earned at this Residence Center may be counted toward the Master's Degree.

CONFERENCES, INSTITUTES, WORKSHOPS, AND SHORT COURSES

The Division of University Extension assists any campus department in planning and carrying out any activities of the conference, institute, workshop, or short course type, whether they be scheduled on or off campus.

Assistance is given in a number of ways. The selection of a conference planning committee, selection of staff for the program itself, promotional activity, arrangement for meals and lodging, meeting places, printing of the program, and registration procedures are some of the services which are offered.

Fees for the above-mentioned programs vary according to the actual cost to the University.

TOURING THEATRE

The Division of University Extension co-operates with the Speech Department in arranging for a group of advanced students in Drama to tour Southern Illinois each spring to present a children's play to elementary school students and an adult play to high school audiences and adult groups.

During the 1954-55 school year this group visited 29 different Southern Illinois communities and appeared before more than 30,000 people, often presenting three performances each day.

Students participating in this tour devote the entire spring quarter to it, registering for twelve quarter hours in Advanced Drama. Several weeks are spent in preparation and study before the group leaves the campus. A few weeks are spent at the end of the tour studying and writing up certain data obtained during the tour. All expenses are paid from the admission fees obtained.

The tour is designed to help drama students get a taste of traveling with a theatrical group, to give future high school teachers experience with many different high school stages, and to bring something worthwhile to the communities of this end of the state.

EDUCATIONAL WORKSHOP AND COUNTY INSTITUTE SERVICE

The Division of University Extension co-operates with the College of Education in scheduling groups of faculty members to present county institute programs and workshops for school systems.

Different faculty groups have carefully planned programs, which can vary from one hour to two days in length, planned especially for the teachers of Southern Illinois and usually presented to them through county institutes. County superintendents of schools or county teacher organizations may obtain information upon request, and a member of the Division of University Extension will be happy to meet with them if necessary to help fit the program to their particular needs.

Workshops for the teachers in any one school system can be planned in co-operation with any school administrator or a committee of his faculty members. These are usually presented during the two weeks immediately prior to the opening of school in September.

REGULATIONS AND REQUIREMENTS

ADMISSION TO THE UNIVERSITY

GENERAL ADMISSION INFORMATION FOR UNDERGRADUATES

Admission at Southern Illinois University constitutes admission to a particular college or instructional division as well as admission to the University, except in the case of a student who is admitted as an unclassified student. In addition, the applicant is expected to indicate the particular major field in which he is interested. Should he be undecided, he should enroll in the College of Liberal Arts and Sciences, unless he plans to teach, in which case he may enroll in the College of Education.

A student may later change his college or major subject if he desires. If such change is made later, however, he may need to make up the elementary requirements of the newly chosen curriculum and thereby delay his graduation.

Students may be admitted at the beginning of each session of the University. Application for admission should be initiated with the Office of Admissions and should be done sufficiently far in advance of the desired entrance date to permit all necessary processing work to be com-

pleted by then. A general admission requirement is the filing of a transcript of record covering all previous high school and college work. Such transcripts should be mailed to the Office of Admissions.

Any student, though already matriculated at Southern, who undertakes work in another institution, whether in the regular session, summer session, or extension, and who plans to continue study at Southern, is required to file a record of such work with the Registrar at Southern. He must keep his academic record complete. These transcripts become a part of his permanent record and are not returned to the student.

Admission requirements do not apply for entrance into non-credit Adult Education courses offered by the Division of Technical and Adult Education.

ADMISSION OF UNDERGRADUATE STUDENTS WITHOUT PREVIOUS COLLEGE EXPERIENCE

To be eligible for admission, a person, whether a resident or non-resident of Illinois, must be either a graduate of a recognized high school, or 21 years of age. Graduates of non-recognized high schools may be admitted by the Director of Admissions by examination. Persons 21 years of age and not high school graduates are required to pass the General Educational Development Tests within the first period of attendance at this University.

A high school graduate who did not rank in the upper three-fourths of his high school graduating class will be admitted to the University on probation. Such a student will be placed under the special supervision of the dean of the academic unit in which he is enrolled, and will be subject to this University's scholarship rules.

Veterans, both resident and non-resident of Illinois, who are not graduates of recognized high schools nor 21 years of age may qualify for admission by passing the GED Test.

All new students at Southern Illinois University must take the Guidance Test Battery. The placement and aptitude tests making up this battery are given during New Student Week, and also once each quarter during the school year. A student will not be considered as having completed his admission requirements until these tests have been completed. Information concerning the testing program may be obtained from the Office of Student Affairs.

ADMISSION OF TRANSFER STUDENTS TO ADVANCED STANDING

To be eligible for admission to advanced standing, an applicant must present a full record of his academic experience. This includes transcript and evidence of graduation from high school, and transcript and evidence of good standing from every college or university attended. Failure to present these records will be cause for dismissal from the University. All such transcripts should be mailed directly from the institution to the Office of Admissions.

Admission by transfer does not necessarily mean that all credits presented for transfer will be accepted. Transferable credits are determined through evaluation at the time of presentation. In all cases, at least three-

fourths of transferable credits from any institution must be of "C" quality or better.

An applicant desiring to transfer to this University is subject to this University's scholarship rules. A case involving admission on probation will be referred to the dean of the instructional unit in which the student desires to enroll before final admission will be granted.

RE-ENTRANCE

Students who were in attendance and in good standing at the close of the preceding quarter need not make application for re-entrance before registration. However, a former student not in attendance at the close of the preceding quarter must contact the Office of Admissions for re-entrance clearance prior to registration.

A former student who seeks re-entrance, but who is not in good standing at Southern, must clear his status before the Office of Admissions will prepare his registration permit. It is to the interest of the candidate to initiate re-entrance clearance early so that all inquiries may be answered and so that the candidate can find time to complete any requirements that may be imposed upon him.

ADMISSION TO GRADUATE SCHOOL

Refer to page 284.

EXTENSION AND CORRESPONDENCE CREDIT

A maximum of one-half of the number of hours required for the bachelor's degree, or 96 quarter hours, may be taken by extension and correspondence courses combined. Of this total, not more than 48 quarter hours may be taken in correspondence courses.

While Southern Illinois University does not maintain a correspondence division, courses taken by correspondence from institutions which are members of the Association of American Universities are regularly accepted, if the final examinations are taken on a college campus.

UNIVERSITY CREDIT FOR MILITARY EXPERIENCE

Southern Illinois University follows the policies recommended by the American Council on Education regarding credit for military experience and for experience in civilian activities related to the war, as set forth in the "Guide to the Evaluation of Educational Experiences in the Armed Forces." No credit is allowed for College Level G.E.D. Tests. Credit will be accepted for USAFI courses within the limitations imposed for extension and correspondence work.

Credit not to exceed fifteen quarter hours may be granted to an individual for the "basic training" course, ordinarily consisting of thirteen weeks, in the Armed Forces. This credit is regularly assigned to physical education, hygiene, and military. If the student already has credit in these subjects, the amount will be somewhat less.

For completion of an extension course given by a recognized college or university, credit will be allowed in the usual manner.

Competence in technical or vocational fields may be demonstrated by examination, provided the fields correspond to vocational and technical

subjects for which credit is regularly granted on the campus. A veteran student may be allowed to take examinations for credit in fields such as mathematics, physics, mechanics, and foreign languages, to obtain appropriate credit.

The above credit for military experience may be obtained only by regularly enrolled students or by those who attended Southern before entering the armed services. In order to secure such credit it is necessary for the veteran to file a copy of his discharge with the Registrar's Office and to ask that the credit be granted him.

FEES*

Fees for a term of three months:

Tuition (including incidental fees such as laboratory, swimming and towel fees).....	\$20.00
Student Activity Fee.....	10.50
Book Rental Fee.....	<u>3.50</u>
Total	\$34.00

Graduate student fees are the same as above with the addition of a matriculation fee of \$5.00 for graduates of schools other than Southern.

Students holding valid state scholarships and military scholarships are exempt from the above fees to the degree provided by the terms of the specific scholarship so held.

The general student activity fee includes the fee for limited hospitalization, entertainment, athletics, *The Obelisk*, *The Egyptian*, and such other activities as may be provided.

A part-time resident student taking eight (or fewer) quarter hours will pay half tuition and half book rental fees. In addition, such students pay the \$1.00 Student Union Building Fund Fee and have an option on paying the \$9.50 Student Activity Fee. Therefore part-time student fees are:

Tuition	\$10.00
Book Rental Fee	1.75
Activity Fee and/or Student Union Building Fund Fee	<u>10.50 or 1.00</u>
Total	\$22.25 or \$12.75

Additional special fees or charges include the following:

Additional Tuition for out-of-state students per term of three months.....	\$30.00
AF ROTC Equipment Deposit.....	5.00
Late Registration Fee—\$2.00 first day, \$1.00 increase each day to a maximum of.....	5.00
Completion of an incomplete course.....	1.00
Graduation Fee.....	15.00
Graduate Aptitude Test Fee.....	3.00

*The Student Union Building Fund Fee will be increased to \$3.00 per term, effective the Winter Term, 1956-57 and to \$4.00 per term effective Fall Term, 1957-58.

Faculty members and University civil service employees taking courses are not charged tuition and activity fees. They pay, however, the appropriate Book Rental Fee of \$3.50 or \$1.75, depending upon whether they are taking more than eight hours or eight hours or fewer. They also pay the \$1.00 Student Union Building Fund Fee.

Belleville Residence Center Fees are \$4.00 per quarter hour plus a \$1.05 Book Rental Fee per course.

Extension course fees are \$3.00 per quarter hour plus a \$1.05 Book Rental Fee per course.

Adult education course fees are computed on the basis of \$0.30 per contact hour.

Other charges which a student may incur involve departmental field trips, library fines, excess breakage fees, and failure to report for physical examination fees.

A student is entitled to a free transcript of his University record each time he has added academically to his record through work taken at this University, provided he has fulfilled all his financial obligations to the University. There is a charge of \$1.00 for each additional transcript.

GRADING SYSTEM

Grades are expressed in letters as follows:

	(Per quarter hour)
A, Excellent	5 grade points
B, Good	4 grade points
C, Satisfactory (this is intended to be the average grade)	3 grade points
D, Poor, but passing	2 grade points
E, Failure; all work completed including final examination, but failed	1 grade point
W, Course not completed; includes incomplete records of all kinds (except "deferred" for graduate students)	0-5 grade points

The number of weeks the student attended is indicated by a number; if he attended more than four weeks, this is to be followed by the grade he was making at the time of withdrawal. For example, W⁸B.

DEF, Deferred grade. Work not complete. Given only for graduate students.

CR, Credit. No letter grade assigned.

A grade submitted at the end of a course is final and may not be raised by additional work.

Any student who withdraws from a class without following the prescribed procedure will receive a grade of "W-E" in the course regardless of when the withdrawal occurs. A withdrawal from a course is initiated with the student's academic adviser.

Courses from which a student has withdrawn officially will be shown on his record as "W." Withdrawal within the first four weeks of the term will not carry a grade. Courses from which the student has withdrawn after the

first four weeks will be recorded as "W" and must carry a grade. Withdrawals after the first three weeks of an eight-week summer session or after the first six weeks of a sixteen-week extension course must carry grades. Exceptions to this rule may be permitted for unusual circumstances, but only through written approval of the student's academic dean or director.

Any change of grade, as upon the completion of a "W," must be reported within a year after the close of the term in which the course was taken. A fee of one dollar is charged for the completion of a course marked "W," unless the fee is waived on recommendation of the University physician. A student who for some reason must miss the final examination may not take an examination before the one scheduled for the class. In this case, "W," along with the grade earned at the time, should be recorded by the instructor. The final examination may be given at a later date, within one year. A complete record of all changes in grades will appear on the official transcript.

The official record of a student's academic work is maintained in the Registrar's Office. Effective for course work taken during the Fall Quarter, 1955, and thereafter, this record will not be checked for validity by the Registrar unless requested within five years of the ending date of the term in question. Work taken prior to the Fall Quarter, 1955, will continue to be checked without time restriction until the end of the Fall Quarter, 1960. At that time no checking will be done for work taken prior to the Fall Quarter, 1955, and thereafter, no checking will be done except for work taken within a five-year period from the date of request.

CHANGES AND WITHDRAWALS

A prescribed procedure must be followed by a student desiring to change his academic program, or to withdraw from the University while the period for which registered is still in progress. Failure to follow the official procedure will result in academic penalty (see Grading System above).

To add or drop a course an undergraduate student must initiate a program change with his academic adviser. Graduate students should refer to page 286. In addition, the approval of other officials might be required, depending upon the specific conditions surrounding a program change. A program change must be submitted to the Registration Center for final action.

Within the first week of a term a student may drop a course by obtaining proper approval, which will be given under most circumstances. As a rule, however, a student will find it more difficult to obtain permission to drop a required course. If a student desires to drop a course during the second, third, or fourth weeks of a term, the change will be approved only where the reasons appear valid; but the student will not usually be permitted to drop a required course. If a student desires to drop a course after the fourth week, the change will be approved only under unusual conditions. In the last three weeks of a term, changes will be approved only in extreme emergencies.

The same rules will govern program changes in the eight-week summer sessions, except that after the third week approval will be given for changes only in case of unusual conditions.

A student desiring to change his academic unit or his major should do so at the time he next registers after having made his decision. A change in academic unit is made through the Office of Student Affairs. A change in major is made with the student's academic adviser.

A student is considered officially registered after he has cleared his payment of fees at the Bursar's Office. If a student finds he cannot attend or, if after attending for a period of time, finds he cannot continue, he must report to the Office of Student Affairs to initiate official withdrawal action. A refunding of fees is permitted only if a withdrawal is officially completed within the first ten school days of a quarter and if the application for a refund is received in the Registrar's Office within ten school days following the last regular university registration day. A refund is not permitted for withdrawal after that time.

CLASSIFICATION OF STUDENTS

Registrants of the School of Agriculture, School of Business and Industry, School of Communications, College of Education, School of Fine Arts, College of Liberal Arts and Sciences, Small Business Institute, Department of Home Economics, and Department of Nursing are classified under one of the following groups: Freshman, Sophomore, Junior, and Senior.

Freshman classification is assigned to undergraduate students who have completed less than forty-eight quarter hours of academic credit.

Sophomore classification is assigned to undergraduate students who have completed forty-eight or more, but less than ninety-six quarter hours of academic credit.

Junior classification is assigned to undergraduate students who have completed ninety-six or more, but less than one-hundred forty-four quarter hours of academic credit.

Senior classification is assigned to undergraduate students who have completed one-hundred and forty-four or more quarter hours of academic credit.

Students who have completed one bachelor's degree and who are seeking a second bachelor's degree are registered as seniors in the academic unit where they desire to earn the second degree.

All degree students must meet at the proper time the requirements of the University and of the academic unit in which they are registered. Students registered in the pre-professional courses listed in the catalog (i.e., pre-medicine or pre-engineering) are regarded as degree candidates and take special courses as outlined which will assist them in completing their degree elsewhere.

A registrant in the Graduate School is classified as a Graduate Student.

Regular Graduate Student classification is given to those who are admitted to the Graduate School and who are working toward an advanced degree from Southern Illinois University. It should be kept in mind that admission to the Graduate School is not equivalent to admission to candidacy for a degree.

A student holding a bachelor's or master's degree and wishing to take graduate or undergraduate courses without their being counted toward a

degree at Southern Illinois University may register as an *Unclassified Graduate Student*.

An *Unclassified Student* is an undergraduate student who for some reason is not registered in one of the academic units of the University. All such students must sign a statement indicating that they are not degree students and that credit received cannot be applied toward a degree at this University while they are enrolled as unclassified students.

A student who has been dropped from an academic unit shall be referred to the Office of Student Affairs for counseling. If arrangements cannot be made for admission to another academic unit, the student will not be permitted to register in the University unless he is approved as an unclassified student.

A student desiring a terminal course in vocational and technical areas or non-credit adult education courses is enrolled in the Division of Technical and Adult Education.

STUDENT LOAD

The normal load for a student for a twelve-week term is sixteen quarter hours, with a maximum of eighteen. A person may not register for more than eight quarter hours if he is employed full-time. A student with a 4.25 average the preceding term may be allowed by the dean of his academic unit to take as many as twenty-one hours. In no case may a student carry, or be credited with, more than twenty-one hours in any term. A student on probation (see below) may not take more than fourteen hours. The normal load for the eight-week summer session is ten to twelve quarter hours.

SCHOLASTIC STANDING

Rules pertaining to scholarship apply to a student's total record whether accumulated only at Southern or partially at other institutions as well. A freshman or sophomore (fewer than 96-quarter hours) goes on probation at the end of any term in which his overall grade points fall below the "C" average by more than 15 points. A junior or senior (96-quarter hours or more) goes on probation at the end of any term in which his overall average is below "C." While on probation a student must maintain a "C" average or he will be dropped from his academic unit at the end of a term in which he fails to do so. At that time he will be referred to the Office of Student Affairs for counsel concerning future academic possibilities.

An additional requirement for a student on probation is that if he desires to begin or continue in University extra-curricular activities, he must petition for permission to do so. Petition applications may be secured at the Office of Student Affairs.

Probation computation example—

A student with a 16 credit-hour load needs 48 grade points for a "C" average (16 x 3 grade points per hour).

A first-term freshman with the following grades:

C—6 credit hours (6 x 3 grade points) equals 18 points

D—5 credit hours (5 x 2 grade points) equals 10 points

E—5 credit hours (5 x 1 grade point) equals 5 points

Has attempted 16 credit hours, has earned 11 credit hours and has accumulated 33 grade points.

This is below the "C" average required by 15 grade points.

This student has earned the bare minimum required and is NOT on probation.

Each hour of A receives 5 grade points

Each hour of B receives 4 grade points

Each hour of C receives 3 grade points

Each hour of D receives 2 grade points

Each hour of E receives 1 grade point

For admission of transfer students, and re-admission of students with previous unsatisfactory scholastic averages, see page 36.

HONORS

In recognition of high scholarship, an Honors Day Convocation is held each spring. Candidates for the bachelor's degree who have maintained a grade-point average of 4.25 or more for all of their work through the winter term of their senior year receive honor pins. In the case of a transfer student, he must have entered Southern Illinois University by the beginning of the junior year and have maintained the 4.25 average.

For information concerning Honors courses open to high-ranking students, see below.

Graduating seniors are recognized at Commencement on the graduation program, and their diplomas designate honors granted on the following basis:

Highest Honors	Point average of 4.90 or higher
High Honors	Point average of 4.75-4.89
Honors	Point average of 4.50-4.74

COURSE NUMBERS

The course numbering system is as follows:

000-099.....	for courses not properly falling within the following levels
100-199.....	for freshmen
200-299.....	for sophomores
300-399.....	for juniors and seniors
400-499.....	for seniors and graduates
500 and above.....	for graduates only

Ordinarily, students are not permitted to take courses above their classification; that is, a freshman should register for freshman courses, and only in rare instances for sophomore courses.

UNIT OF CREDIT AND SCHEDULE OF CLASS PERIODS

One quarter hour represents the work done by a student in a lecture course pursued for a term of twelve weeks, one hour a week; and, in the case of the laboratory and activity courses, the usual additional time.

One quarter hour of credit is equivalent to two-thirds of a semester hour. Each day-time class period during the academic year is fifty minutes in

length beginning on the hour. The first classes are at eight o'clock. Ten minutes are allowed between periods. Classes scheduled during the evening ordinarily run longer than fifty minutes because they meet fewer times during the week than do day classes. Their length, however, is adjusted so that the same amount of instructional time is entailed.

HONORS COURSES

A student with a 4.5 grade point average at the end of his second year is eligible to apply for honors work. In exceptional cases, students with less than 4.5 may be eligible if the Honors Work Program Committee approves. The Committee is the final judge if there arises doubt about the eligibility of a student to enter honors courses.

Each honors student does his work under the supervision of an adviser, selected in conference between the student and the department chairman or chairmen involved, and acceptable to the Honors Committee. Secondary advisers may at times be required. The student's election of an honors program must also have the approval of his regular adviser.

The adviser and the department, in consultation with the student, will prepare for the student an honors program, which, before being put into effect, must have the approval of the chairman of the Honors Committee and the appropriate academic dean.

The candidate for honors will complete a series of honors courses, and a final honors examination. These honors courses are undertaken only at the beginning of a term and are counted in the total credit-hour load, subject to the usual regulations. At the end of each term's work the adviser will report to the Registrar the grade and credit hours of the honors student.

The student must have weekly conferences, or the equivalent with his adviser, who will keep a written record of the student's progress. The student must complete 9 quarter hours of honors work and may be granted up to 18 quarter hours. The amount of credit is determined by the adviser and the chairmen of the departments concerned. All arrangements about credit should be clearly understood by student and adviser at the outset. If a student abandons the program before completing it, he will receive regular course credit for the work that he has done.

At least one month before the convocation at which the student expects to receive his degree he will be given a final honors examination covering the work done under the honors program. There will be at least three examiners, including the adviser, the chairmen of the departments concerned, or their representatives, and such other faculty members as represent fields of study included in the honors work. A favorable vote by a majority of the examining committee is required to pass the candidate.

A student who has satisfactorily completed the requirements of honors work is so reported to the Registrar. At the convocation when the successful honors student is to receive his degree, special recognition of his achievement will appear in the official printed program and upon the student's diploma.

UNIVERSITY REGULATIONS

The University and its various instructional units reserve the right to change the rules regulating admissions, instruction, and graduation; and to

change any other regulations affecting the student body. Such regulations shall go into force whenever the proper authorities so determine, and shall apply both to prospective students and to those who have matriculated in the University. The University also reserves the right to withdraw courses and to change fees.

BACHELOR, MASTER, AND DOCTOR DEGREES AWARDED

The School of Agriculture grants the Bachelor of Science in Agriculture degree.

The School of Business and Industry grants the Bachelor of Science degree.

The School of Communications grants the Bachelor of Science degree.

The College of Education grants the Bachelor of Science in Education and the Bachelor of Music Education degrees.

The School of Fine Arts grants the Bachelor of Arts and the Bachelor of Music degrees.

The College of Liberal Arts and Sciences grants the Bachelor of Arts degree.

The Department of Home Economics grants the Bachelor of Science degree.

The Department of Nursing grants the Bachelor of Science degree.

The Small Business Institute grants the Bachelor of Science degree.

The Graduate School offers the Master of Science in Education, the Master of Arts, the Master of Science, the Master of Fine Arts, and the Doctor of Philosophy degrees.

A student who receives his first bachelor's degree from Southern, and who requests a second bachelor's degree, must complete forty-five hours in addition to those required for this first degree and must fulfill the requirements for the second degree. Of these forty-five hours, a minimum of fifteen hours must be taken in residency on this campus and a maximum of fifteen hours may be taken by extension and/or correspondence courses. At least thirty hours must be in senior college courses. If a student received his first bachelor's degree from another university, forty-eight hours will be required to fulfill the residence requirement for the second bachelor's degree, two-thirds of which must be in senior college courses.

Every candidate for a degree must file written application with the Registrar not less than three weeks before the date on which the degree is to be granted. At the time of application the student must pay his graduation fee and order his cap and gown through the University Store and register with the Director of the Placement Service. A student must have a 3.0 average before his application for a degree may be accepted.

In the week preceding graduation, each candidate for the degree should secure from the Registrar's Office the financial clearance slip, obtain the required signatures, and return the slip to the office before Commencement. These slips are circulated by the Registrar's Office for students not in residence during the term immediately preceding graduation.

Students must attend Commencement exercises to receive their diplomas, unless in advance they are granted permission to be graduated *in absentia*.

REQUIREMENTS FOR THE BACHELOR'S DEGREE IN ALL INSTRUCTIONAL UNITS

Each candidate for the degree must complete 192 hours of credit in approved courses. *At least 64 must be in senior college courses, of which 48 must be earned in residence.* Each student must have a "C" average, and grades not lower than "C" in subjects aggregating at least three-fourths of the work. A "C" average is required in the major subject. These averages are required for the credit made at Southern as well as for the total record.

The following requirements should be met by degree candidates of all colleges and schools within the first two years of attendance. (For the Bachelor of Music and the Bachelor of Music Education Degrees, for which requirements are somewhat different, see page 142.)

*Social Studies—20 quarter hours (work in 4 departments required)

Economics, 5 hours

Geography, 5 hours

Government, 5 hours

History, 5 hours

Sociology, 5 hours

Humanities—18 quarter hours

English 101, 102, 103—9 hours

English 205, 206, 209, 211, 212—6 hours

Art 120 or Music 100—3 hours

Note: The student is also advised to complete the foreign language requirement for the bachelor's degree within the first two years. (This applies only to those students taking programs requiring a foreign language.)

Biological Sciences—9 quarter hours

Health Education 100—4 hours

Botany 101, 202, or Zoology 100—5 hours

Mathematics and Physical Sciences—12 quarter hours

Chemistry, Mathematics, Physics (the 12 hours to be selected from two departments)

Practical Arts and Crafts—3 quarter hours

Agriculture, Business Administration, Home Economics, Industrial Education, (not required if the student has had any of this work in high school)

**Physical Education—6 quarter hours activity courses

*The State of Illinois requires that American patriotism and the principles of representative government, as enunciated in the American Declaration of Independence, the Constitution of the United States of America, and the Constitution of the State of Illinois, and the proper use and display of the American flag shall be taught in all public schools and other educational institutions which are maintained in whole or in part by public funds, and that no student shall receive a Certificate of graduation without passing a satisfactory examination upon such subjects. Government 101 and 300 and History 201 and 330 offer such instruction. (Students preparing to teach should also see Certification on page 108.)

**The physical education requirement can be waived only by the Graduation Appeals Committee upon the recommendation of the University Physician. Waiver procedure should be initiated early in a student's college course and in no case later than the end of his sophomore year. Students thirty years of age or older are not subject to this requirement.

Air Science and Tactics—6 quarter hours (Men)

Six quarter hours of Air Science and Tactics are required of all entering male students who undertake their first college work by entering Southern unless they are veterans or are excused from the requirement by the Military Policies Committee, or are over twenty-five years of age. Veterans who received university credit for basic training may not receive credit for the basic Air Science and Tactics nor for required activity physical education. Students who have been granted the usual academic credit for military basic training are not required to take Health Education 100, physical education activity, nor basic military (see page 38).

Students may satisfy any of the above requirements by passing non-credit attainment tests. In some cases, more advanced work may be substituted for the required courses listed. Students who transfer in the junior or senior years may substitute senior college courses in most departments for the freshmen-sophomore courses listed above.

Degree candidates are expected to follow the basic program set out here plus the advanced work recommended by the department in which the student expects to do his major work. The requirement that freshmen must attend weekly assemblies should also be noted (see page 22). If the student intends to take his degree elsewhere, the adviser may recommend changes in these requirements in favor of those of the institution from which the student plans to be graduated. If the student changes his mind and decides to take his degree at Southern, none of the above requirements will be waived.

UNDERGRADUATE STUDY

AGRICULTURE

AIR SCIENCE AND TACTICS

BUSINESS AND INDUSTRY

COMMUNICATION

EDUCATION

FINE ARTS

HOME ECONOMICS

LIBERAL ARTS AND SCIENCES

NURSING

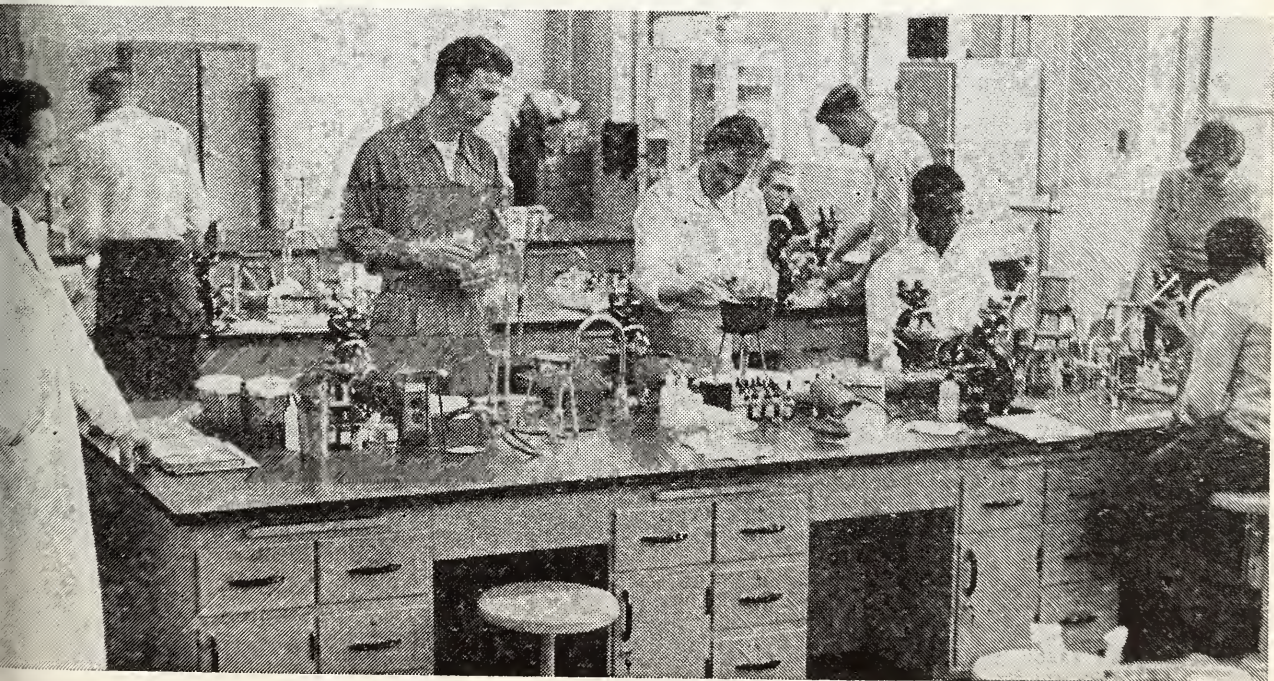
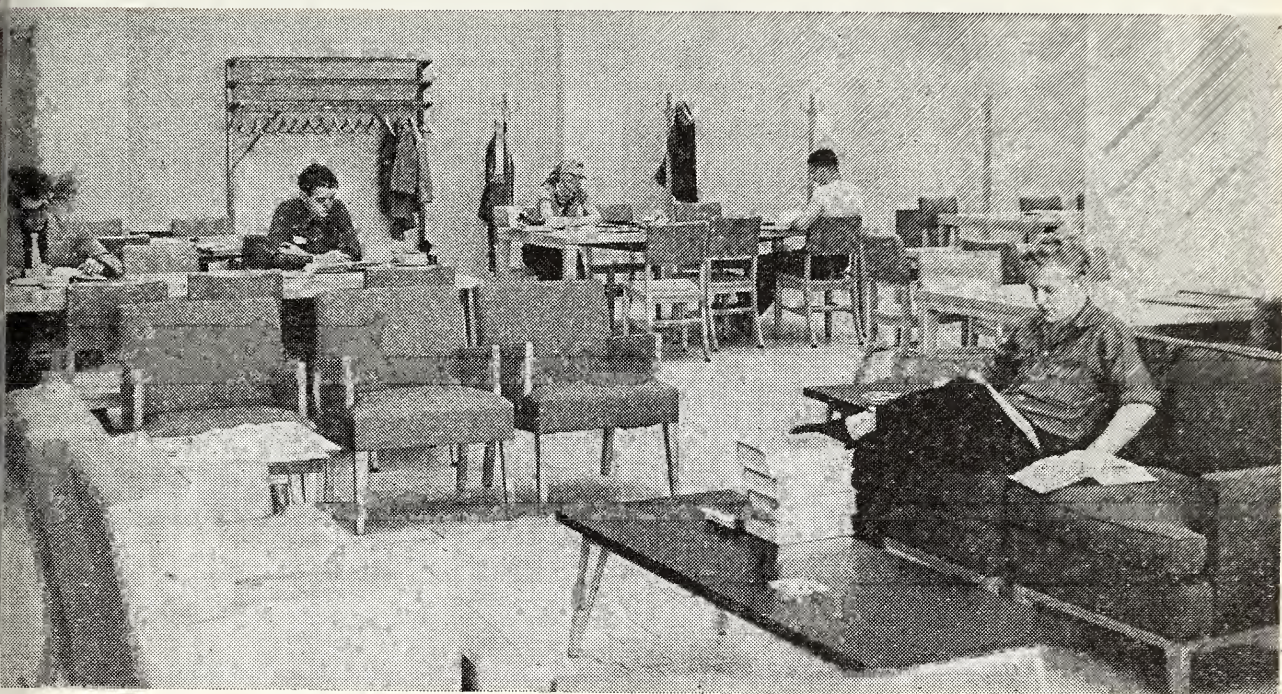
SMALL BUSINESS INSTITUTE

TECHNICAL AND ADULT EDUCATION



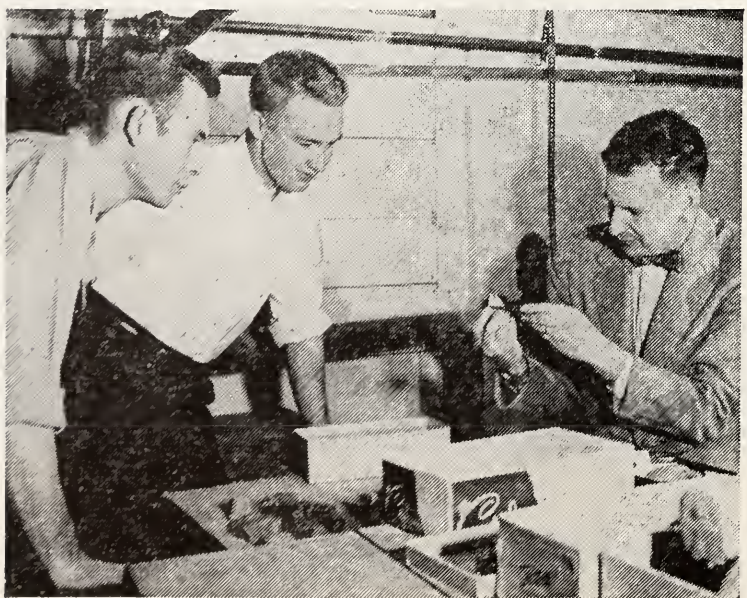
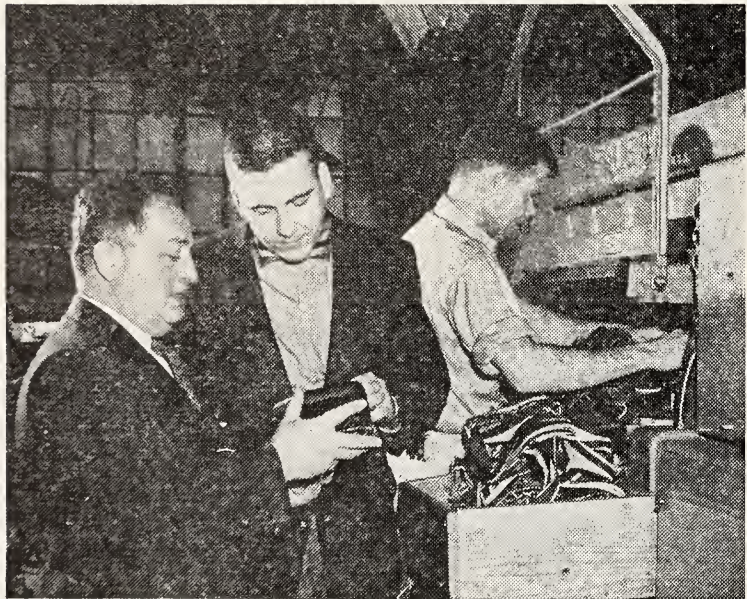
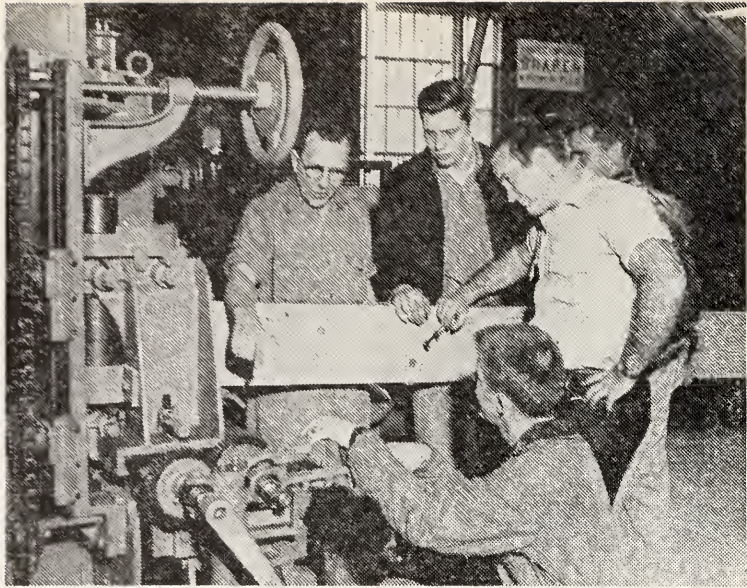
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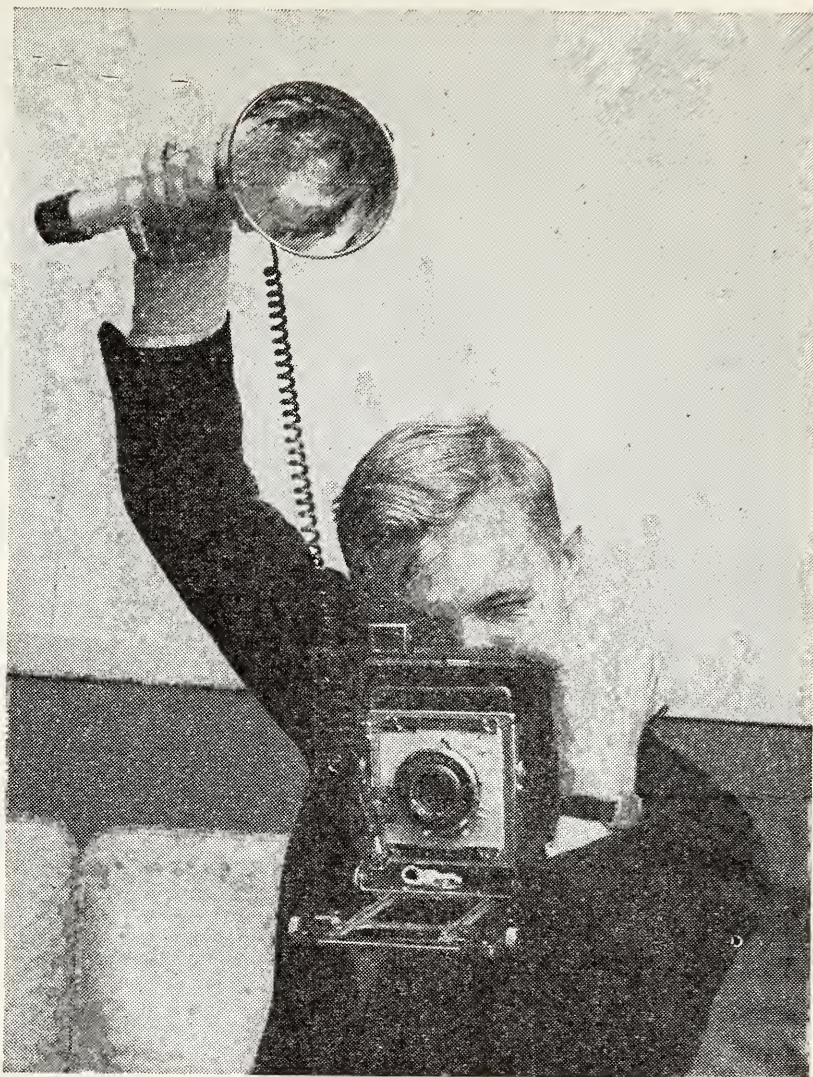
INSTRUCTION AND SERVICES



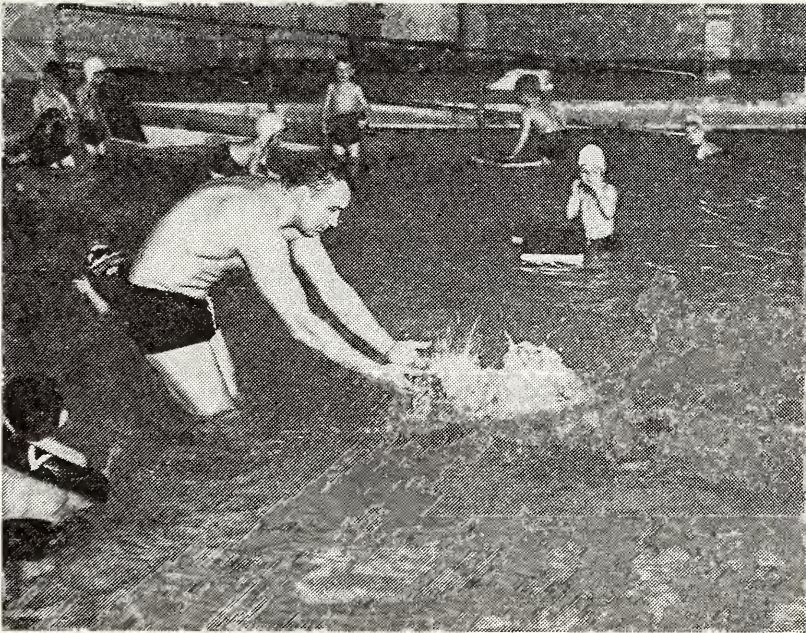
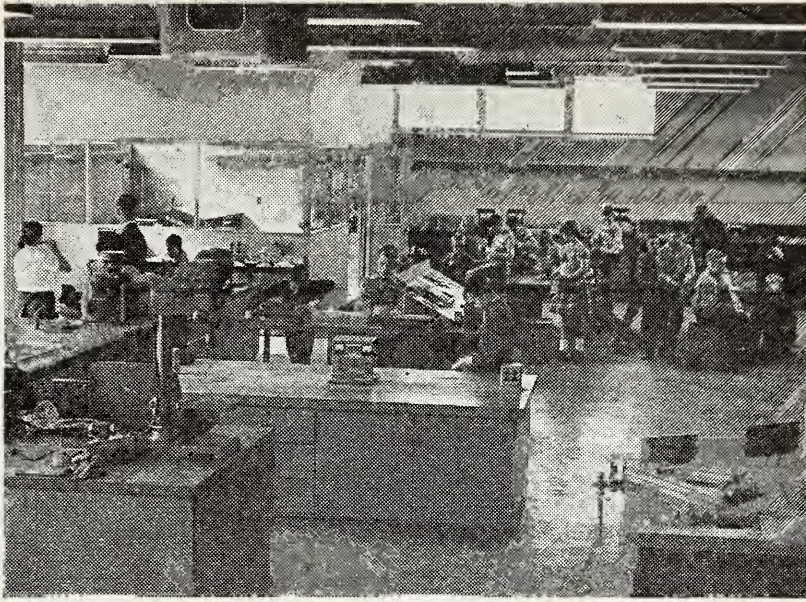


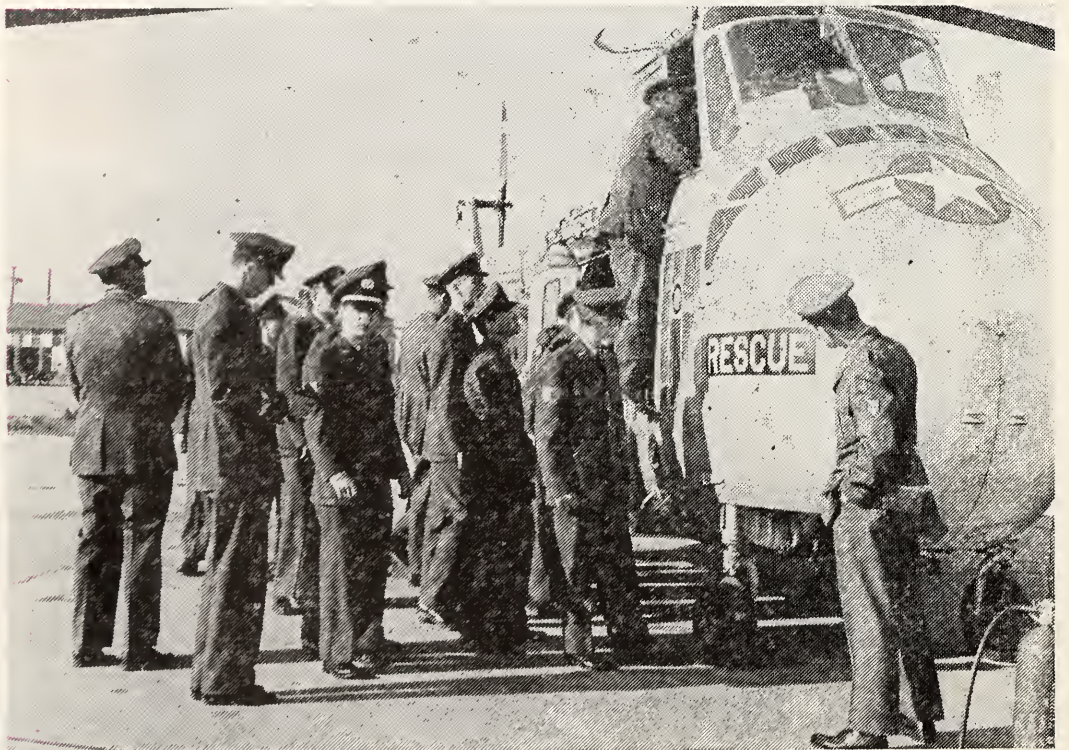
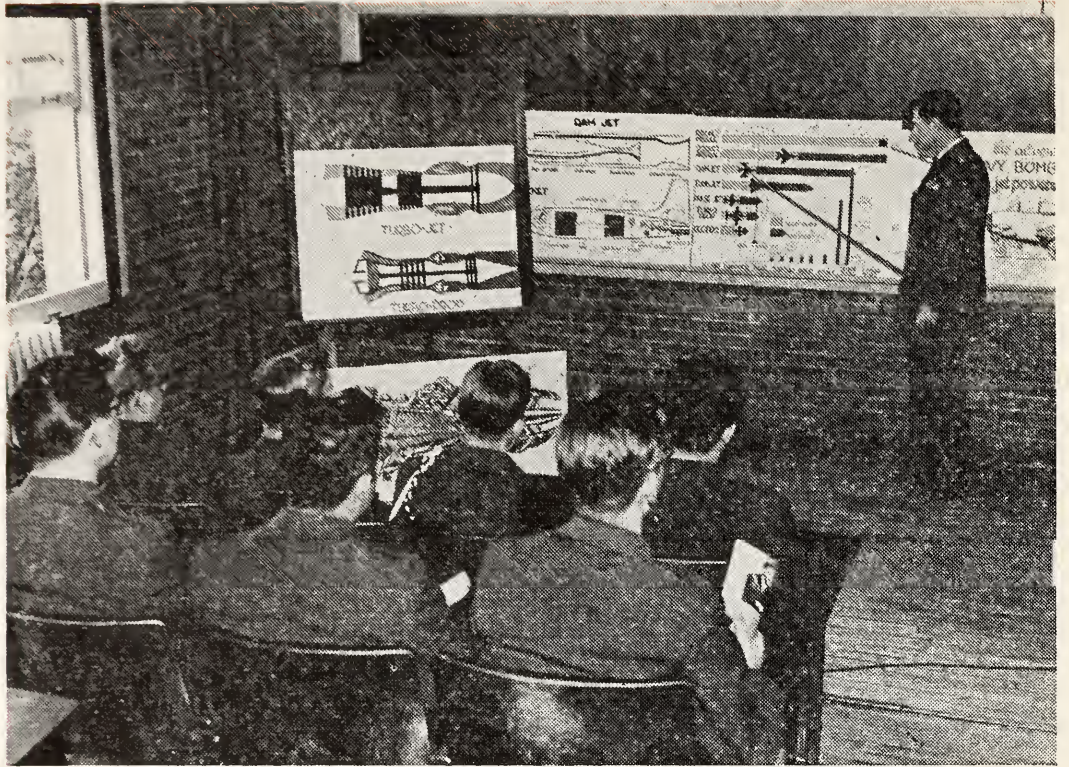












SCHOOL OF AGRICULTURE

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN WENDELL E. KEEPPER, PH.D. (CORNELL)	1950
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. MCGRATH, PH.D. (IOWA)	1949

The School of Agriculture provides instruction, demonstration, and consultation in agriculture, forestry, and other activities directed toward the rural development of Southern Illinois. The School of Agriculture includes the Department of Agriculture, which is the instructional unit; and the University Farms, the Illinois Horticultural Experiment Station, and the Southern Illinois Co-operative Agronomy Research Center, which are experimental and demonstration units. The staff of the School of Agriculture performs its teaching and research functions through the Department of Agriculture and the experimental units. The non-degree adult educational work is done within the framework of the Division of Technical and Adult Education.

The Department of Agriculture serves the needs of:

1. Those wanting a four year education leading to a baccalaureate degree of:
 - a. Bachelor of Science in Agriculture
 - b. Bachelor of Science in Education with a major in Agriculture
2. Those desiring pre-professional training for:
 - a. Forestry and Wood Technology
 - b. Pre-veterinarian training with a major in Agriculture
3. Those desiring to teach Vocational Agriculture and wanting to obtain the first two or three years of preparation at Southern

REQUIREMENTS FOR GRADUATION

Each candidate for the Bachelor of Science in Agriculture must fulfill the general university requirements listed on page 47.

Students obtaining a degree in the School of Agriculture will major in Agriculture, and no minor is required. Sufficient opportunity for free electives is provided so that the student may by choice pursue any supplementary training in any field he wishes.

TEACHING AND RESEARCH FACILITIES

The School of Agriculture currently is responsible for the operation of 1462 acres of land adjacent to the campus for purposes of teaching and re-

search in agriculture. This acreage is operated in three separate units: (1) the University Farms; (2) the Illinois Horticultural Experiment Station; and (3) the Southern Illinois Co-operative Agronomy Research Center. A modern agricultural classroom and laboratory building group to accommodate 400 students is under construction and scheduled for completion by the Fall of 1957.

THE UNIVERSITY FARMS

PROFESSOR ALEX REED, PH.D. (ILLINOIS)	1946
PROFESSOR WALTER J. WILLS, PH.D. (ILLINOIS)	1956
ASSOCIATE PROFESSOR WILLIAM T. ANDREW, PH.D. (MICHIGAN)	1950
ASSOCIATE PROFESSOR WILLIAM G. KAMMLADE, JR., PH.D. (ILLINOIS)	1954
ASSOCIATE PROFESSOR FRED W. ROTH, M.S. (MICHIGAN STATE)	1952
ASSOCIATE PROFESSOR LOWELL R. TUCKER, PH.D. (MASSACHUSETTS)	1947
ASSISTANT PROFESSOR SCOTT HINNERS, M.S. (PURDUE)	1951
ASSISTANT PROFESSOR HOWARD H. OLSON, PH.D. (MINNESOTA)	1954
ASSISTANT PROFESSOR HERBERT L. PORTZ, PH.D. (ILLINOIS)	1954
ASSISTANT PROFESSOR JOSEPH PETER VAVRA, PH.D. (PURDUE)	1951
INSTRUCTOR HARVEY S. WOODS, M.S. (ILLINOIS)	1949
RESEARCH ASSOCIATE STEWART C. CHANDLER, B.S. (WISCONSIN)	1940

The University Farms of the School of Agriculture presently comprise 1210 acres. This area is fully devoted to teaching, research, and demonstration in soils, crops, livestock, dairying, and poultry. A Poultry Station has been in operation since 1951. Dairy and other teaching-research centers are being developed. Included in the development program are Test Farms for the application and study of new technological developments and research findings from Southern Illinois University and other research institutions. These facilities are to be used for research focused largely on the problems and opportunities of the area, offering students and persons in the area the cumulative benefits of agricultural research, and enriching the University's agricultural instruction program.

ILLINOIS HORTICULTURAL EXPERIMENT STATION

ASSOCIATE PROFESSOR JAMES B. MOWRY, PH.D. (RUTGERS)	1951
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The establishment of a co-operative Horticultural Experiment Station at Carbondale was approved December 1, 1949, and activated August, 1951, by the University of Illinois and Southern Illinois University. The purpose of the station is to provide facilities for research and demonstration with fruit, vegetable, and ornamental crops.

The land area of the station comprises a 28 acre South Unit, a 65 acre West Unit, a five acre Vegetable Unit, and a twelve and one-half acre area for short term vegetable and nursery research. The Station headquarters, located on the West Unit, includes a combination research laboratory-machine shed, a sash type greenhouse, a plastic greenhouse, and a propagation cellar. A one and one-half acre pond provides water for spraying and irrigating.

Projects are conducted on a co-operative basis by personnel of both institutions or independently by personnel of either institution. Specific

projects to be undertaken include: breeding and development of varieties adapted to Southern Illinois; testing fruit, vegetable, and ornamental varieties for adaptability to Southern Illinois; studying fundamental problems related to cultural methods; studying rootstock-variety combinations; and providing demonstration for students and growers.

SOUTHERN ILLINOIS CO-OPERATIVE AGRONOMY RESEARCH CENTER

ASSISTANT PROFESSOR EDWARD F. SULLIVAN, PH.D. (CORNELL) 1953

A co-operatively operated Agronomy Research Center at Carbondale was approved September 1, 1954, and activated at the same time by the University of Illinois and Southern Illinois University. The purpose of the station is to provide facilities for soils and crops research and demonstrations.

The station includes 60 acres of land. The station headquarters, located at the site, currently is a combination field laboratory and storage building of wood and metal construction.

Projects are conducted on a co-operative basis by personnel of both institutions, or independently by personnel of either institution. Studies are conducted to develop acceptable varieties of field and forage crops, emphasizing their adaptability to Southern Illinois; and to seek answers to fundamental problems related to management of soils and the culture of crops. Demonstrations are developed for observation by students and other interested persons.

AGRICULTURE

PROFESSOR WENDELL E. KEEPPER, PH.D. (CORNELL), ACTING CHAIRMAN	1950
PROFESSOR RENZO E. MUCKELROY, M.S. (WISCONSIN), EMERITUS (1945)	1911
PROFESSOR ALEX REED, PH.D. (ILLINOIS)	1946
PROFESSOR WALTER J. WILLS, PH.D. (ILLINOIS)	1956
ASSOCIATE PROFESSOR WILLIAM T. ANDREW, PH.D. (MICHIGAN)	1950
ASSOCIATE PROFESSOR RALPH A. BENTON, PH.D. (ILLINOIS)	1956
ASSOCIATE PROFESSOR JOSEPH E. BURNSIDE, JR., PH.D. (WISCONSIN)	1955
ASSOCIATE PROFESSOR WILLIAM G. KAMMLADE, JR., PH.D. (ILLINOIS)	1954
ASSOCIATE PROFESSOR FRED W. ROTH, M.S. (MICHIGAN STATE)	1952
ASSOCIATE PROFESSOR LOWELL R. TUCKER, PH.D. (MASSACHUSETTS)	1947
ASSISTANT PROFESSOR RICHARD D. CREEK, PH.D. (PURDUE)	1955
ASSISTANT PROFESSOR SCOTT W. HINNERS, M.S. (PURDUE)	1951
ASSISTANT PROFESSOR JOHN F. HOSNER, M.F. (DUKE)	1950
ASSISTANT PROFESSOR HOWARD H. OLSON, PH.D. (MINNESOTA)	1954
ASSISTANT PROFESSOR HERBERT L. PORTZ, PH.D. (ILLINOIS)	1954
ASSISTANT PROFESSOR JOSEPH PETER VAVRA, PH.D. (PURDUE)	1951
INSTRUCTOR HARVEY S. WOODS, M.S. (ILLINOIS)	1949
VISITING PROFESSOR GEORGE H. DUNGAN, PH.D. (WISCONSIN)	1956-57
VISITING PROFESSOR JOSEPH S. ILICK, D.Sc. (LAFAYETTE)	1956
LECTURER MARSHALL G. CLARK, M.S. (ILLINOIS), EMERITUS (1954)	1947
LECTURER MILTON Y. DENDY, M.S. (MISSOURI)	1956-1957

For a major in Agriculture a minimum of 60 hours of agricultural courses is required for the Bachelor of Science in Agriculture. Those taking the first two or three years of work leading toward certification under the Smith-Hughes Law for teaching vocational agriculture must complete their training and receive their degree from a college certified to train vocational agriculture teachers.

SUGGESTED CURRICULUM IN THE SCHOOL OF AGRICULTURE

General degree requirements: See page 47.

School of Agriculture degree course requirements: 114, 125, 124, 105, 260, 207, 208, 231, 213, 202, 315, 360, 350; Botany 101; Zoology 100; Chemistry 101, 102 (103) or 111, 112, 305; Speech 101; Economics 205; Microbiology 201.

Through advisement and counseling by faculty members, students having interests in special fields of agriculture may be guided in selecting electives according to their needs. A minimum of 12 hours in electives must be in the field of agriculture. A total of 64 hours must be in 300 courses.

SUGGESTED CURRICULUM IN VOCATIONAL AGRICULTURAL EDUCATION

Two and three year curricula for transfer students preparing for a degree in Vocational Agricultural Education are offered (based on the University of Illinois curriculum in Vocational Agriculture). A student transferring at the end of his junior year usually will need one summer school session and two semesters at the University of Illinois, or any other institution where a degree in Vocational Agricultural Education is offered, in order to meet graduation requirements by June of the following year.

Required courses: Eng. 101, 102, 103; Bot. 101; Zool. 100; AS&T 101, 102, 103; P.E. 151, 152, 153; Econ. 205; Chem. 111, 112, 305; Speech 101; Govt. 101; Hist. 202; Psych. 201; Geol. 220; H. Educ. 100; Guidance 305; Educ. 331, 355; Agri. 105, 114, 124, 260, 207, 208, 231, 376, 315, 350. In addition, five to six hours of humanities are required and may be taken from the following: Eng. 205, 206, 209, 211, 212; Art 120 or Music 100; Phil. 100, 120, 140.

Recommended electives may be taken in Agriculture or related fields.

SUGGESTED CURRICULA IN THE PRE-FORESTRY AND THE PRE-WOOD TECHNOLOGY PROGRAMS

A co-operative plan of study leading to a Bachelor of Science in Forestry and Wood Technology has been developed by Southern Illinois University and the University of Michigan. Under this plan the student takes the two-year pre-forestry or pre-wood technology program listed below at Southern before transferring to the University of Michigan for two additional years of study leading to the degree. This co-operative plan of study facilitates student transfer without loss of time or credit.

Students desiring to take their pre-forestry or pre-wood technology training at Southern, but electing to complete their training at schools other than the University of Michigan should have the school of their choice in mind

so that a pre-forestry or pre-wood technology program can be developed to meet its specific requirements.

Required courses for both programs: Eng. 101, 102, 103; Bot. 101; Math. 106, 111, 112; AS&T 101, 102, 103; Phy. Educ. 151, 152, 153; Econ. 205, 206; Chem. 111, 112; Speech 101; Agri. 361.

Additional required courses for Pre-Forestry: Bot. 202, 320; Zool. 100; Geol. 220; Physics 101 or 102; Agri. 202, 303.

Additional required courses for Pre-Wood Technology: Physics 106, 107, 108; Ind. Educ. 101, 205.

Recommended Electives: Phil. 100, 120, 140, 160; Art 120; Music 100; Hist. 101, 102, 103; Bot. 203, 210; Chem. 305.

PRE-VETERINARY

Pre-veterinary students may major either in the College of Liberal Arts and Sciences or the School of Agriculture. For a suggested pre-veterinary curriculum see page 155 of this catalog. If a pre-veterinary student wishes to major in Agriculture, he should consult with a representative of the department concerning the use of available electives.

- 105-4. *Animal Husbandry*. Survey of beef cattle, sheep, and hog industries; laboratory work in judging. Field trips, approximately \$2.00 per student. Fall, Spring.
- 114-4. *Introduction to Agricultural Economics*. Agriculture in local and national economy; distribution and reasons; size and organization of the farm business unit; policies affecting agriculture. Fall, Winter.
- 124-3. *Fruit Crops*. Fundamentals of propagation and growing of fruit for home use. Winter, Spring.
- 125-4. *Elementary Poultry Production*. Brooding and rearing of chicks, housing, feeding, disease control, flock selection, management, and marketing of poultry. Fall, Winter.
- 202-4. *Farm Soils*. Formation, classification, characteristics, and treatment. Field trips, approximately \$1.50 per student. Prereq, Chem. 258 or 305. Fall.
- 207-3. *Cereal Crops*. Production and harvesting; improvement; seed purity and germination; grain quality; insects, diseases, weeds, and their control. Prereq, Bot. 101. Winter.
- 208-3. *Forage Crops*. Adaptation, culture, and utilization; their place in crop rotation. Field trips, approximately \$1.50 per student. Prereq, 207, Bot. 101. Spring.
- 213-3. *Introductory Agriculture Engineering*. A survey of agricultural engineering problems and principles. Selection, use, and cost of farm power, building materials, farm wiring, irrigation and drainage. Winter, Spring.
- 219-2. *Horses*. Types, breeds, selection, use, care, and management of saddle and draft animals. Field trips, approximately \$1.00 per student. Spring of alternate years.
- 231-4. *Dairy Husbandry*. Introductory work, including selection, herd improvement, milk secretion, manufacture of dairy products. Fall, Winter.

- 260-3. *Vegetable Gardening*. Home garden sites, soils, plant growing structures, varieties, pest control, harvesting and storing. Field trips, approximately \$1.00 per student. Fall, Spring.
- 303-4. *Surveying*. Elementary surveying, use of tape, compass, level and transit, with practice in making simple maps. Fall.
- 304-3. *Landscape Gardening*. Land selection, landscape design and development for home, farm, and public sites with regard to area adaptation. Field trips, approximately \$2.00 per student. Spring.
- 305-4. *Soil Conservation*. Factors affecting soil erosion and excessive water run-off and principles of soil and water conservation. Field trips, approximately \$2.00 per student. Spring.
- 307-3. *Fertilizers and Soil Fertility*. Sources, manufacture, and use of fertilizer materials; effects of various fertilizers on soils and crops; fertility maintenance and soil management. Prereq, 202. Usually winter quarter of alternate years.
- 308-3. *Advanced Crop Production*. Principles of crop science applied to complete soil-crop management systems. Environmental aspects and cultural practices will be covered. Prereq, 207, 208. Usually fall term.
- 309-4. *Agricultural Education*. Methods of teaching general agriculture in secondary schools. Prereq, 16 hours in education, 16 hours in agriculture. Winter.
- 310-4. *General Agriculture*. A survey of the general field. Cannot be used toward major credit in agriculture. Usually given by extension.
- 314-4. *Agricultural Problems and Policies*. Recognition of problems and their origins; attempts to solve them. Prereq, 114, Econ. 205 or equivalent. Winter.
- 315-4. *Principles of Feeding*. Principles of domestic animal nutrition and feeding. Balancing rations. Prereq, 105 or equivalent. Winter, Spring.
- 316-4. *Small Fruits*. Production of strawberries, brambles, grapes, and miscellaneous small fruits. Prereq, 124, Bot. 101. Winter.
- 317-2. *Meats*. Introduction to, identification, grading, judging, and selection of meats. Field trips, approximately \$2.00 per student. Spring of alternate years.
- 320-4. *Commercial Poultry Production*. Broilers, layers, and turkeys as adapted to poultry specialty farms. Field trips. Prereq, 125. Spring of alternate years.
- 321-4. *Marketing Poultry Products*. Skills required in price determination, processing, grading, storage, merchandising, and distribution of poultry products. Prereq, 125. Fall.
- 322-4. *Advanced Soils*. Basic concepts of soil physics, soil chemistry and soil fertility. Prereq, 202, Chem. 258 or 305. Winter of alternate years.
- 323-2. *Poultry Nutrition*. A study of nutrients, vitamins, chemical and biological analysis as related to production. Ration requirements and formulation, methods and economics of feeding. Prereq, 125, 315. Winter.
- 324-4. *Orcharding*. Commercial tree fruit growing, physiology, orchard practices, pest control, harvesting, and marketing. Field trips,

- approximately \$2.00 per student. Prereq, 124, Bot. 101. Fall of alternate years.
- 327-4. *Hatchery and Breeding Farm Management*. Flock selection, testing, sexing, trade rules and regulations, trapnesting, wingbanding, incubation, disease control, hatchery-producer agreements, records. Prereq, 125. Spring of alternate years.
- 330-4. *Dairy Production*. Milk production; feeding; breeding; calf raising; records; buildings and equipment; sanitation; and diseases. Prereq, 231, 315. Spring.
- 331-4. *Reproduction of Farm Animals*. Physiology of reproduction and modes of inheritance in farm animals. Breeding problems and systems of breeding as related to economic production. Prereq, 105 or 231, Zool. 100. Winter.
- 332-3. *Animal Breeding*. An application of physiology of reproduction and genetics to breeding of farm animals. Selection and systems of mating as related to livestock production. Prereq, 105 or 231, Zool. 100. Fall.
- 334-4. *Preservation and Processing of Agricultural Products*. Commercial canning, freezing, drying, and fermentation of foods. Prereq, three courses in agriculture of home economics or equivalent. Fall of alternate years.
- 337-4. *Animal Hygiene*. Contagious, infectious, and nutritional diseases and parasites of animals; their prevention and control. Prereq, 105. Field trips, approximately \$2.00 per student. Spring.
- 338-3. *Principles of Vegetable Production*. Influence of environment, hormones, breeding, nutrition, crop rotation. Prereq, 260, Bot. 101. Winter.
- 340-4. *Commercial Vegetable Production*. Culture, harvesting, and marketing of commercial vegetables. Prereq, 260, Bot. 101. Field trips, approximately \$2.00 per student. Fall.
- 344-4. *General Floriculture*. Propagation, culture, and uses of flowering plants in the home and garden. Field trips, approximately \$2.00 per student. Winter of alternate years.
- 350-5. *Farm Management*. Measuring profits, principles and practices in organizing and operating the business. Field trips, approximately \$2.00 per student. Prereq, 114, junior standing. Winter.
- 351-4. *Farm Financial Management*. Farm records and accounts as aids in solving financial problems; obtaining and using credit and insurance; budgeting. Prereq, 350. Spring.
- 354-4. *Agricultural Marketing*. Market outlets for farm products, price determinants, agricultural market efficiency, margins and costs. Prereq, 114, Econ. 204. Fall.
- 355-5. *Plant Pathology*. (Same as Botany 355) A study of plant diseases caused by fungi, bacteria, and viruses. Special attention given to diseases of Southern Illinois plants. Laboratory and field trips. Prereq, Bot. 101, 202, 301, or approval of instructor.
- 356-3. *Agricultural Co-operatives*. Development of the Agricultural Co-operative Movement, Agricultural Co-operative Organization, legal requirements, principles and practices of Agricultural co-operative associations. Prereq, 114, Econ. 205. Spring.

- 360-4. *Farm Forestry*. The management of farm woodlands: measurement of logs; trees and stands; planting and harvesting methods; improvement cuttings; uses and marketing of woodland products. Field trips, approximately \$2.00 per student. Fall.
- 361-4. *General Forestry*. The importance and use of forests, their management, public forest policy. For non-agricultural majors; agricultural majors admitted only with consent of instructor. Field trips, approximately \$2.00 per student. Winter.
- 365-4. *Swine Production*. Breed selection, breeding, feeding, management, and marketing of swine. Field trips, approximately \$2.00 per student. Prereq, 105, 315. Winter.
- 375-3. *Farm Shop*. Set-up of the farm workshop, selection, care, and use of tools and machinery for farm repair work; equipment construction. Fall.
- 376-4. *Farm Tractor Maintenance*. A study of daily and periodic service needs of tractors and on-farm servicing of functional parts. Winter.
- 377-4. *Farm Structures*. Basic requirements of farm buildings; materials used; elementary principles of design; practical applications of these principles. Prereq, 213. Spring.
- 378-3. *Farm Machinery*. Elementary mechanics and principles on which farm machines operate. Selection, operation, maintenance, and storage of farm machines. Prereq, 213. Spring.
- 380-4. *Sheep Production*. Breeding, feeding, and management of sheep. Field trips, approximately \$2.00 per student. Prereq, 105, 315. Spring.
- 381-1. *Animal Industries Seminar*. Discussions of problems relating to livestock production. Limited to senior students. Fall, Winter.
- 385-4. *Beef Production*. Breeding, feeding, and management of beef and dual-purpose cattle. Field trips, approximately \$2.00 per student. Prereq, 105, 315. Fall.
- 390-2 to 8. *Special Studies in Agriculture*. Assignments involving research and individual problems. Approval of department chairman required.

AIR FORCE RESERVE OFFICERS TRAINING CORPS

AIR SCIENCE

COLONEL ALEXANDER R. MACMILLAN, PROFESSOR, B.S. (USMA)	1954
MAJOR JACK H. ALDRIDGE, ASSISTANT PROFESSOR	1954
MAJOR WILLIS E. BLUM, ASSISTANT PROFESSOR	1953
MAJOR JAMES G. BRIDWELL, ASSISTANT PROFESSOR	1954
MAJOR RUSSELL E. OAKES, ASSISTANT PROFESSOR	1952
MAJOR MELVIN E. SELF, ASSISTANT PROFESSOR, M.ED. (NORTH TEXAS STATE)	1953
CAPTAIN VICTOR R. BARNARD, ASSISTANT PROFESSOR, B.S. (INDIANA)	1953
CAPTAIN CHARLES E. CRECELIUS, ASSISTANT PROFESSOR, B.A. (WILLAMETTE)	1953
CAPTAIN JACK R. DAVIS, ASSISTANT PROFESSOR	1955
LIEUT. RICHARD H. PHILLIPS, ASSISTANT PROFESSOR	1955
LIEUT. MARION E. THORNSBERRY, ASSISTANT PROFESSOR	1955
M/SGT. JOHN W. FLEMING, INSTRUCTOR	1952
M/SGT. PORTER A. SHANNON, INSTRUCTOR	1955
M/SGT. ROBERT W. SNYDER, INSTRUCTOR	1952
T/SGT. RICHARD L. CRAWFORD, INSTRUCTOR	1955
T/SGT. IRVING F. C. GAST, INSTRUCTOR	1954
T/SGT. ARCHIE A. HOWELL, INSTRUCTOR	1955
T/SGT. LLOYD D. MEREDITH, INSTRUCTOR	1955
T/SGT. GEORGE E. WATKINS, JR., INSTRUCTOR	1955
S/SGT. WILLIAM F. STELLING, INSTRUCTOR	1955

The Air Force ROTC Detachment at Southern Illinois University is a (senior division) ROTC unit administered by commissioned officers of the USAF, detailed to it by the Department of the Air Force with the approval of the University. These officers are appointed as members of the University instructional staff. The ranking officer, USAF, designated as Professor of Air Science, is the Detachment Commander. Airmen are assigned to assist in practical instruction and administration and to supervise the care of federal property. The University Corps of Cadets consists of all students pursuing AF ROTC training. All AF ROTC cadets retain their civilian status until they are commissioned as United States Air Force Reserve Officers and are ordered to active military service.

The course of study is divided into the Basic Course, covering the first two years, and the Advanced Course, covering the junior year, summer training unit, and the senior year in that order. It is designed to provide fundamental training, both personal and professional, which will best equip a cadet to become a well-rounded junior Air Force officer possessing a high growth potential and also to develop and stimulate a growing desire on his part to enter the Air Force flight training program. The Basic Course

is designed with two additional objectives in mind: first, to interest the cadet in the possibility of continuing in the Advanced AF ROTC and ultimately making the Air Force his career; and secondly, to provide him with "Air Age" citizenship training of long-range value to the Air Force whether he returns to civil life or becomes a member of the USAF. Emphasis is given throughout the courses, both in theory and practice, to outlining the leadership and managerial duties and responsibilities of squadron level officers, to improving oral and written expression, and to learning techniques of the problem-solving process.

Each male student who is admitted as a beginning freshman at Southern Illinois University must enroll in and successfully complete the basic course in Air Science during his freshman and sophomore years. Any exception to this policy must be approved by the Military Policies Committee appointed by the President. In general, students will be exempt from this requirement if they are veterans, overage, physically handicapped, or conscientious objectors. Transfer students are encouraged to consult the Professor of Air Science to discuss the advantages of enrollment in Air Science courses.

The successful completion of the entire Basic Course (six academic quarters) or the equivalent in previous military service, is a prerequisite for graduation. Enrollment in the Advanced AF ROTC Course is voluntary on the part of the student if he is qualified, as well as highly selective on the part of the Air Force.

THE REQUIRED BASIC COURSE

The required Basic Course for freshmen and sophomores will consist of three hours of instruction per week for a minimum total period of seventy-two weeks.

THE VOLUNTARY ADVANCED COURSE

Qualified students may apply for the Advanced Air Force ROTC Course. This consists of six quarters of academic work, plus a six-weeks summer training unit. The object of the Advanced Course is to qualify students for appointment as second lieutenants in the United States Air Force Reserve.

Selection of students for enrollment will be made by the Professor of Air Science as provided in section 47c, National Defense Act, from qualified applicants as follows:

1. Conditions of Service. All Advanced Course students will be civilians who will be placed under contract with the government. The contract will contain the following provisions:
 - a. The student agrees
 - (1) Unless sooner discharged for the convenience of the government, to complete the Advanced Course and to attend the summer training unit at the time specified by proper authority.
 - (2) To accept an appointment as second lieutenant, United States Air Force Reserve, if and when tendered.
 - b. The Department of the Air Force agrees to pay the student commutation of subsistence at a daily rate as announced by that department. This rate varies from year to year. The current rate is \$.90 per day for a maximum period of 637 days.

2. Personal Qualifications.

- a. A student must have completed the Basic Course or its equivalent in previous service.
 - (1) Students who have had previous military training or service may receive credit toward entrance into the Advanced Course within the following limits. (Individuals excused from the basic military training requirements for reasons other than those listed below are not eligible to apply for the advanced course.)
 - (a) On the basis of previous honorable active service in the Air Force, Army, Navy, Marine Corps, or Coast Guard, a cadet may request a waiver of the Basic Course, or any portion thereof, as a requirement for entrance into the Advanced Course. To satisfy entrance requirements for the Advanced Course, veterans entering an institution at freshman or sophomore level who desire a commission through AF ROTC will be required to take in phase with non-veteran contemporaries the portion of the basic program which remains.
 - (b) For previous training in a Senior Division ROTC program at another institution, credit will be allowed equivalent to the number of quarters of the course successfully completed.
- b. In age, the student must not have reached his 25th birthday at the time of initial enrollment in the advanced course.
- c. The physical standards prescribed for appointment to the United States Force Reserve in AFM 160-1 will apply. Due allowance will be made for physical defects that can be corrected.
- d. Mental and educational requirements:
 - (1) A satisfactory score for the "Air Force Officer Qualification Test" will be required.
 - (2) The fact of enrollment in Southern Illinois University and in academic "good standing" will be accepted in satisfaction of educational requirements.
 - (3) At the time of acceptance, the applicant must have at least two academic years remaining to complete all prerequisites for graduation from the University; or, if he is a graduate student, he must have a like period of time remaining to complete all work for an advanced degree. In addition, an applicant's academic standing must be in phase with his AF ROTC training.

3. All members of the Advanced Course will receive the following emoluments:

- a. A monetary allowance in lieu of subsistence, at a value to be announced by the Department of the Air Force, to be paid quarterly during the period of enrollment in the Advanced Course, except during the period of the summer training. The total period will not exceed two calendar years. The allowance is in addition to benefits authorized by the GI Bill of Rights.

- b. An officer-type uniform—cadets will be furnished a uniform on a commutation basis. The uniform remains in the cadet's possession during his two-year enrollment and becomes his property upon successful completion of the Advanced AF ROTC program.
- c. The pay of the first enlisted grade (\$75.00 per month) while at advanced summer training unit and travel pay to and from camp at the rate of \$.05 per mile.

The Advanced Course will consist of five hours of instruction per week for a minimum total period of seventy-two weeks.

The program of the Advanced Course will consist of generalized courses designed to develop those attributes of character, personality, and leadership which are essential to an officer in the USAF, supplemented by practical training in leadership, drill, and exercise of command.

Advanced Air Force ROTC training units of four weeks duration will be conducted annually at Air Force installations to be designated by the Department of the Air Force.

Students enrolled in the Advanced Course will be required to complete the summer training program prior to receiving their commissions. They will normally attend camp immediately after completing the first year advanced course.

Students enrolled in the AF ROTC courses at Southern Illinois University receive the following credits:

	Total
1 quarter hour of credit for each academic quarter of the Basic Course	6 quarter hours
4 quarter hours of credit for each academic quarter of the Advanced Course	24 quarter hours
Total quarter hours of credit for the basic and advanced courses	30 quarter hours

All credit received for the AF ROTC courses is allowable toward a bachelor's degree.

Qualified students may apply for deferment from the draft under the Universal Military Training and Service Act, as amended. Such students will agree to pursue the full four years of Air Science if they sign the AF ROTC Selective Service Agreement.

Air Force ROTC textbooks will be furnished on a loan basis to all AF ROTC students. They remain the property of the Federal Government and must be properly handled.

Uniforms are furnished to the University by the Federal Government for the use of the Basic AF ROTC students. In case a uniform should become so worn or damaged as to be unfit for wear, the student may be held responsible to the extent determined by proper authority.

All cadets are required to wear the uniform on such days and occasions as directed by the Professor of Air Science.

AIR FORCE ROTC AWARDS

Awards are presented to outstanding cadets at the close of the school year. Details concerning such awards are published at appropriate times on

the cadet bulletin board. The following awards will be presented to recipients at an "Awards Review" held in May of each academic year:

1. The Trustee's Cup. Awarded to the best drilled unit or squadron of the Cadet Corps; it will have the name of the unit or squadron of the Cadet Corps, the names of the unit or squadron commander, and designation of the winning unit or squadron inscribed on it. The cup will be retained at Southern Illinois University for display in the trophy case.
 2. The Colonel's Cup. Awarded to that member of the Southern Illinois University Rifle Team scoring the highest total number of points in all competitive matches during the current year. The name of the winning cadet will be inscribed on the cup. The cup will be retained at Southern Illinois University for display in the trophy case.
 3. The Trustee's Award, Senior Student. Awarded to the outstanding cadet in the senior course, based on standing in the University and in AF ROTC, and aptitude for general service.
 4. The Trustee's Award, Sophomore Student. Awarded on the same basis as for senior cadet, except to a sophomore.
 5. The Trustee's Award, Freshman Student. Awarded on the same basis as for senior cadet, except to a freshman.
 6. The Trustee's Award, Marksmanship. Awarded to the member of the Rifle Team making the highest score in marksmanship during the current year.
 7. Air Force Association Medal, Outstanding Advanced Cadet. Awarded to the advanced course cadet making the highest military grades of the year.
 8. The Reserve Officer's Association Award, Senior Student. Awarded to the outstanding senior cadet based on University and AF ROTC grades for the current year and aptitude for general service.
 9. The Reserve Officer's Association Award, Sophomore Student. Awarded on the same basis as for senior.
 10. Chicago Tribune Award, Junior Student. Awarded at the end of the first and third quarters of each school year to the outstanding junior cadet, based on the highest grade in the particular military course of the current quarter and aptitude for general service.
 11. Chicago Tribune Award, Sophomore Student. Awarded on the same basis as for junior cadet.
 12. Convair Cadet Award, Sophomore Student. Awarded to the outstanding sophomore student applying and selected for the Advanced Cadet Corps.
 13. American Legion Award. A national Security Award, presented to an AF ROTC cadet in recognition of continued outstanding service by contributing the greatest effort in the interest of the corps.
 14. Republic Aviation Award. Awarded to the junior student in AF ROTC showing the greatest enthusiasm and interest by the presentation of a topic on Air Power.
- 101-1, 102-1, 103-1. *Air Science I, Basic*. Introduction to AF ROTC; introduction to aviation; fundamentals of global geography; international tensions and security organizations; military instruments

- of national security; and leadership laboratory. **Basic military training.** 2 hours lect.; 1 hour lab. 101 Fall, 102 Winter, 103 Spring.
- 201-1, 202-1, 203-1. *Air Science II, Basic.* Introduction to Air Science II; elements of aerial warfare—introduction, targets, weapons, aircraft, bases, operations; careers in USAF; and leadership laboratory. Cadet non-commissioned officer training. 2 hours lect.; 1 hour lab. Prereq, 101, 102, 103, or equivalent with consent of PAS. 201 Fall, 202 Winter, 203 Spring.
- 301-4, 302-4, 303-4. *Air Science III, Advanced.* Introduction to Advanced AF ROTC: the Air Force Commander and his staff; problem solving techniques; communications process and Air Force correspondence; military justice system; air navigation; weather; Air Force Base functions; and leadership laboratory. 4 hours lect.; 1 hour lab. Prereq, 201, 202, 203, or equivalent with consent of PAS. 301 Fall, 302 Winter, 303 Spring.
- 351-4, 352-4, 353-4. *Air Science IV, Advanced.* Career guidance; principles of leadership and management (seminar); military aviation and the evolution of warfare; military aspects of world political geography; and leadership laboratory. 4 hours lect.; 1 hour lab. Prereq, 301, 302, 303, or equivalent with consent of PAS. 351 Fall, 352 Winter, 353 Spring.

SCHOOL OF BUSINESS AND INDUSTRY

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN HENRY J. REHN, PH.D. (CHICAGO)	1945
ASSISTANT DEAN VERNON G. MORRISON, M.A. (NEBRASKA)	1947
CHIEF ACADEMIC ADVISER PAUL M. HOFFMAN, M.B.A. (NEW YORK)	1950
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. MCGRATH, PH.D. (IOWA)	1949

The School of Business and Industry serves the needs of:

1. Those wanting a four-year education leading to the baccalaureate degree of Bachelor of Science in the departments of
 - a. Business Administration
 - b. Economics
 - c. Industrial Education
2. Those desiring pre-professional training for engineering

Candidates for admission to the School of Business and Industry are normally expected to have included in their high school program 3 units in English, 1 in Algebra, 1 in Geometry, 2 in Science, and 2 in Social Studies.

REQUIREMENTS FOR GRADUATION

Each candidate for the Bachelor of Science degree must fulfill the general University requirements listed on page 47 plus the requirements of his department and the chosen field of specialization.

No minor is required in the School of Business and Industry. However, the departments of the School offer minors to students of other colleges and schools and to those students of this School who desire such a minor.

Proficiency in English is required. It may be demonstrated by examination or the successful passing of English 390 or 391.

PRE-ENGINEERING

In general, engineering schools specify approximately the same course for the first year or two, regardless of the type of engineering training. Before arranging a program for the second year, the student should decide what kind of engineer he wishes to be and the college or university to which he wishes to transfer. In this way, his adviser can work out a program with him that will best fit into the program required by the engineering school of his choice.

In the two years of pre-professional work the student normally takes: two years of AF ROTC, two years of mathematics, and a year each of

rhetoric and composition, engineering drawing and descriptive geometry, physics, inorganic chemistry, economics and general business, and analytical mechanics.

Electives are chosen on the basis of the type of engineering program desired. Some of these are advanced drafting, speech, surveying, machine design, and the humanities.

BUSINESS ADMINISTRATION

PROFESSOR HENRY J. REHN, PH.D. (CHICAGO), ACTING CHAIRMAN	1945
PROFESSOR JOHN W. SCOTT, PH.D. (CHICAGO), EMERITUS (1952)	1947
PROFESSOR RALPH DALE SWICK, D.B.A. (INDIANA)	1955
ASSOCIATE PROFESSOR HARRY B. BAUERNFEIND, M.A. (NORTHWESTERN)	1951
ASSOCIATE PROFESSOR VIOLA M. DUFRAIN, PH.D. (CHICAGO)	1947
ASSOCIATE PROFESSOR SUSIE E. OGDEN, A.M. (ILLINOIS)	1931
ASSOCIATE PROFESSOR HARVES C. RAHE, ED.D. (INDIANA) 1944-1946;	1950
ASSISTANT PROFESSOR MARY NOEL BARRON, M.B.A. (MICHIGAN)	1948
ASSISTANT PROFESSOR RALPH BEDWELL, M.S. (SYRACUSE)	1954
ASSISTANT PROFESSOR VAN A. BUBOLTZ, M.A. (NORTHWESTERN)	1937
ASSISTANT PROFESSOR ROBERT L. GALLEGLY, A.M. (ILLINOIS)	1946
ASSISTANT PROFESSOR PAUL M. HOFFMAN, M.B.A. (NEW YORK)	1950
ASSISTANT PROFESSOR DEAN C. TRACY, M.A. (MISSOURI)	1955
INSTRUCTOR EMERSON CLAYTON ERB, JR., M.B.A. (INDIANA)	1955
VISITING PROFESSOR CHESTER A. PHILLIPS, PH.D. (YALE), LL.D. (HUNTINGTON)	1955-56
LECTURER HARRY AINSWORTH, M.A. (IOWA)	1955-56
LECTURER WILLMORE B. HASTINGS, B.S. (ILLINOIS)	1955-56
LECTURER FRANK F. STAMBERG, B.S. (ILLINOIS)	1955-56
LECTURER ROBERT W. TUNNELL, LL.B. (WASHINGTON UNIVERSITY)	1955-57

The Department offers work leading to the following degrees:*

1. Bachelor of Science. For students in the School of Business and Industry who major in Business Administration with a specialization in one of the following areas:
 - a. Accounting
 - b. Finance
 - c. General Business
 - d. Marketing
 - e. Personnel Management
2. Bachelor of Science. For students of the School of Business and Industry who major in Secretarial Training.
3. Bachelor of Science. For students in the Small Business Institute. For further information, see page 213.

*In addition to the work offered in this Department, the University offers a series of two-year programs in business through the Division of Technical and Adult Education. For details, see page 214.

4. Bachelor of Science in Education. Business teacher training for students in the College of Education.

In addition to the majors listed above, the department offers minors for students majoring in other fields.

SUGGESTED CURRICULA IN THE SCHOOL OF BUSINESS AND INDUSTRY

(Note: At least forty per cent of the student's work is to be in Economics and Business Administration subjects and at least forty per cent is to be outside these two areas.)

General degree requirements: See page 47.

Required courses constituting majors in Business Administration or Secretarial Training: 102*, 170, 251, 252, 253, 271, 320, 330, 371, 372, 373, 375; Econ. 205**, 206, 307; Geog. 211**; Math. 106b**, 107b**; plus election of one of the areas of specialization listed below.

Additional courses required for a major in Business Administration with a specialization in Accounting: 351, 352, 353, 354a, 354b, 355, or 357b or 358 or 459, 356, 357a, 370; Econ. 315, 470.

Additional courses required for a major in Business Administration with a specialization in Finance: 323, 327, 328, 334, 370; Econ. 315, 330, 340, 416, 470.

Additional courses required for a major in Business Administration with a specialization in General Business: 327, 331, 333, 334, 337, 370; Econ. 310, 315, 330, 470.

Additional courses required for a major in Business Administration with a specialization in Marketing: 331, 332a, 332b, 333, 334, 337, 370; Econ. 315, 328, 470.

Additional courses required for a major in Business Administration with a specialization in Personnel Management: 370; Econ. 310, 315, 411, 470; Jour. 393; Psych. 201, 305, 315, 317, 401.

Additional courses required for a major in Secretarial Training: 103, 104, 105, 106, 107, 213, 216, 308, 311, 312, 313, 334; Econ. 355 or Home Ec. 341.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Business Administration: 102*, 103, 104, 170, 213, 251, 252, 253, 313, 371, 372, 403, 405; Econ. 205, 206; Geog. 211; Math. 106b**, 107b**; plus election of one of the two areas listed below.

Additional courses required for those taking Program A: 105, 106, 107, 216, 330, 351, 352, 371.

Additional courses required for those taking Program B which does not include shorthand: 373, 304, 330; Econ. 355.

*Students who, during their first three terms at the University, pass a proficiency test are excused from this requirement.

**These courses are included as options in the general education requirements.

DEPARTMENT COURSE OFFERINGS

The course offerings of the Department may be classified as follows:

1. Courses in Accounting: 250, 251, 252, 253, 351, 352, 353, 354a, 354b, 355, 356, 357a, 357b, 358, 359, 459.
 2. Courses in Business Education: 302, 303, 304, 401, 402.
 3. Courses in Finance: 320, 323, 327, 328.
 4. Courses in General Business: 170, 271, 370, 371, 372, 373, 374, 375, 471, 472, 473, 475, 479.
 5. Courses in Marketing: 330, 331, 332a, 332b, 333, 334, 337.
 6. Courses in Secretarial Training: 102, 103, 104, 105, 106, 107, 113, 213, 216, 307, 308, 311, 312, 313.
- 102-3. *Typewriting I*. An introductory course in touch typewriting, giving credit only to those students who have had no previous school training in typewriting. Students who have had typewriting in high school should take a placement test. (Placement tests are given during each quarter at announced times.)
- 103-3. *Typewriting II*. Continuation of 102. Emphasis on business letter typing and on development of speed and accuracy.
- 104-3. *Typewriting III*. Development of techniques incidental to business letter typing, tabulating, typing from rough-draft copy.
- 105-4. *Shorthand I*. An introductory course in Gregg shorthand, giving credit only to those students who have had no previous school training in shorthand. Students who have had shorthand in high school should take a placement test. (Placement tests are given during each quarter at announced times.)
- 106-4. *Shorthand II*. Continuation of 105.
- 107-4. *Shorthand III*. Continuation of 106. Development of skill in writing Gregg shorthand from dictation, with emphasis on increasing the vocabulary.
- 113-3. *Typewriting-Duplicating*. Review of elementary typewriting. Development of techniques related to duplicating processes, including stencil and direct-process machines. Open only to Kindergarten-Primary Education majors. Prereq, 102 or equivalent.
- 170-4. *Introduction to Business Administration*. A survey of business, intended to give to the student a general knowledge of the modern business world, a better basis for choosing his specialty, and certain information not covered in the various specialized courses offered.
- 213-3. *Typewriting IV*. Continuation of 104. Development of high competencies in typewriting. Emphasis on business letters, other business forms, manuscripts, legal forms, and stencils or masters for duplicating machines; transcription from Dictaphone belts. Prereq, 104 or equivalent.
- 216-4. *Shorthand IV*. Continuation of 107. Development of high competencies in writing shorthand from dictation. Prereq, 107, or equivalent.
- 250-4. *Accounting Fundamentals*. For students who want a general knowledge of accounting, but who do not wish to pursue the subject further. Not open to Business Administration majors. Winter of alternate years.

- 251-4, 252-4, 253-4. *Elementary Accounting I, II, III*. Principles and practices in handling simple transactions in books of original entry and books of accounts—trial balances, adjustments, and financial statements.
- 271-4. *Business Writing*. Principles and practice in writing typical kinds of business correspondence and reports. Prereq, Eng. 103. Ability to pass qualifying test in typewriting.
- 307-3. *Secretarial Practice*. A finishing course for secretaries, covering such topics as personality and office relationships, office mail, office equipment, travel, and business reports. Prereq, 213 and 216, or their equivalents.
- 308-4. *Transcription*. Integration of shorthand, typewriting, and English.
- 311-3. *Office Filing and Classification*. Modern filing systems and equipment, with intensive practice in applying indexing rules and filing correspondence. Emphasis on classification principles and practices. Training in shorthand. Students who have had shorthand in high school should take a placement test. (Placement tests are given during freshman orientation week and again during the fourth week of each quarter.)
- 312-3. *Office Management*. Application of principles of management to office problems, with the purpose of giving the secretary an understanding of office work from the management viewpoint. Prereq, permission of instructor.
- 313-4. *Office Calculating Machines*. Introduction to various kinds of office calculating machines, emphasizing the usefulness of each kind of machine in solving the different mathematical problems encountered in the office. Requiring laboratory practice.
- 320-5. *Financial Management*. Financial structure in industry, sources of capital, regulation of securities, of stock exchanges and the Security and Exchange Commission; dividend and other financial policies. Interpreting corporation reports and evaluating securities through the analysis of financial statements. Prereq, 253, Econ. 205.
- 323-4. *Investments*. Survey of the problems and procedures of investment management; types of investment risks; security analysis; investment problems of the individual as well as of the corporation. Prereq, 320.
- 327-4. *Insurance*. Underlying principles and functions of insurance in the economic life of the individual and of business. Prereq, 253. Econ. 206.
- 328-4. *Real Estate*. Purchasing, financing, owning, developing, improving, assessing, maintaining, zoning, subdividing, conveying, managing, operating in a real estate business; the influence of recent court decisions on real estate.
- 330-5. *Marketing Principles and Practices*. A general survey course designed to acquaint the student with the entire field of marketing. Consideration given to the underlying economic principles; historical development of distributive systems, channels, agents, institutions, functions, policies and principles.

- 331-4. *Transportation*. Evolution of American transportation systems, and of the current problems of transportation facilities in connection with governmental control and regulation. Prereq, 330.
- 332a-4. *Retailing*. Retailing opportunities and techniques. Purchase planning; mark-up; inventory calculation and valuation; stock turnover; inventory, mark-downs, discounts. Prereq, 330.
- 332b-4. *Store Management*. Store management; organization, location; layout. Procedures in receiving goods, handling sales; packing; wrapping; customer complaints; telephone orders, etc. Prereq, 332a.
- 333-4. *Principles of Advertising*. Advertising fundamentals in relation to modern business activities; fields of advertising; advertising media, campaigns, and systems. Prereq, 330.
- 334-4. *Credits and Collections*. Organization and operation of the credit department, including the sources and analysis of credit information, collection methods, and correspondence. Retail credit management emphasized. Prereq, 330.
- 337-4. *Principles of Salesmanship*. History, scope, and importance of selling in modern business; the sales department; the salesman's part in the selling process. Prereq, 330.
- 351-4, 352-4, 353-4. *Advanced Accounting I, II, III*. Accounting principles and procedures for the preparation of adequate financial statements. Special attention given depreciation, appraisals, investments, intangibles, installment sales, consignments, branch accounts, compound interest in relation to accounting for sinking funds, annuities, leaseholds, and bonds. Preparation and use of special statements, application of funds, statement of affairs, and consolidated statements. Prereq, 253.
- 354a-3. *Cost Accounting*. Departmental, job order, and process cost. Accumulation of material and labor costs; factory overhead and its allocation; cost reports to executives—their preparation and use. Prereq, 253.
- 354b-4. *Advanced Cost Accounting*. Standard costs and distribution costs. Special problems in cost accounting, including joint product, by-product, and capacity costs. Prereq, 354a.
- 355-3. *Governmental Accounting*. Budget and operating fund accounts, with emphasis on accounting control as a means of improving administration of public enterprises. Prereq, 253.
- 356-5. *Auditing*. Procedures and practices of public accountants in verifying accounts and supplementary data; training in preparation and analysis of reports. Laboratory method used. Prereq, 353.
- 357a-5. *Tax Accounting*. Study of accounting principles and procedures for meeting requirements of current laws and regulations which relate to federal income tax and social security taxes. Laboratory problems and preparation of tax reports. Prereq, 253.
- 357b-3. *Problems in Federal Taxation*. Continuation of 357a, with problem material in income, estates, and gift taxes as they affect individuals and various forms of business organization. Prereq, 357a.
- 358-4. *Accounting Systems*. Problems in system design and installation. Practice in system design. Prereq, consent of instructor, and 354b.

- 359-2. *Income Taxes for Individuals*. Federal income tax law as applied to individuals.
- 370-5. *Production Management*. Plant location, design, and construction; internal organization for operations; production control, stores control, routing of materials, job analysis, and time study; wage systems, subdivision of executive responsibilities and duties; methods of co-ordination and planning. Prereq, Econ. 206.
- 371-4, 372-4, 373-4. *Business Law I, II, III*. Legal problems in the normal business relations, including the law of contracts, agency, sales, bailments, negotiable instruments, insurance, private property, and business organizations.
- 374-2. *Time and Motion Study*. Principles and methods for simplifying work and establishing sound time-allowances for performance.
- 375-4. *Personnel Management*. Relation of the human element to production; the art of securing understanding and co-operation; employee organizations and outside activities; work of the personnel department; wage standards and working conditions. Prereq, Econ. 206.
- 401-4. *Problems of Business Education*. The fundamentals of business education, covering history and status of business education, business curriculum, objectives, types of learning, instructional materials, and measurement and standards of achievement. Prereq, permission of instructor.
- 402-4. *Review of Research in Business Education*. A study of business education, covering problems, investigational procedures, major findings and conclusions of the outstanding research workers in business education. Prereq, permission of instructor.
- 403(302)-3. *The Teaching of Typewriting*. Methods, materials, tests, programs, and other aspects of the teaching of typewriting in high schools. Prereq, 213, or equivalent.
- 404(303)-3. *The Teaching of Shorthand*. Methods, materials, tests, programs, and other aspects of the teaching of shorthand in high schools. Prereq, 216, or equivalent.
- 405(304)-3. *The Teaching of Basic Business Subjects*. Methods, materials, tests, programs, and other aspects of the teaching of high school business subjects other than shorthand and typewriting. Prereq, permission of instructor.
- 459-4. *Internship in Accounting*. Supervised work experience in professional accounting. Prereq, outstanding record in accounting and recommendation of the committee on internship.
- 471-4. *Business Organization and Management*. Business organization, management theory, and practice. Prereq, 370 and senior standing in Bus. Admin.
- 472-4. *Small Business*. The position of small business in our national economy, including the organization, financing, location, personnel policies, merchandising practices, records, government regulations, and taxes. Prereq, senior standing in Bus. Admin.
- 473-4. *Business Enterprise and Public Policy*. Some major problems of social control of business arising out of the operation of business in modern society; covering types of control, necessity and effects of control. Prereq, senior standing.

- 475-4. *Budgeting and System*. Budgeting and systems as aids in co-ordinating and directing business operation. Prereq, 253 and 320.
- 479-2 to 8. *Problems in Business and Economics*. Application of economic theory to practical business problems. Open to majors in business administration or economics, who have senior standing.

(See page 296 for Business Administration courses on the 500 level.)

ECONOMICS

PROFESSOR GEORGE H. HAND, PH.D. (PRINCETON)	1952
PROFESSOR LEWIS A. MAVERICK, ED.D. (HARVARD), PH.D. (CALIFORNIA)	1946
ASSOCIATE PROFESSOR ROBERT G. LAYER, PH.D. (HARVARD), ACTING CHAIRMAN	1955
ASSOCIATE PROFESSOR EDWARD V. MILES, JR., A.M. (ST. LOUIS)	1919
ASSISTANT PROFESSOR MILTON T. EDELMAN, PH.D. (ILLINOIS)	1950
ASSISTANT PROFESSOR PAUL W. ISBELL, M.S. (ILLINOIS)	1952
ASSISTANT PROFESSOR VERNON G. MORRISON, M.A. (NEBRASKA)	1947
LECTURER CHIPEI PETER TSENG, PH.D. (IOWA)	1954-56

A student may elect economics as his major or minor subject for the below-listed degrees. According to his college or school, the student will be a candidate for one of the following degrees:

1. Bachelor of Science. For students in the School of Business and Industry.
2. Bachelor of Arts. For students in the College of Liberal Arts and Sciences.
3. Bachelor of Science in Education. For students in the College of Education.

For a minor in economics, the following courses are required: 205, 206, 310, 315, 317, (plus 355 for a student in College of Education); Bus.Ad. 250; Math. 307 or Econ. 307.

SUGGESTED CURRICULA IN THE SCHOOL OF BUSINESS AND INDUSTRY

General degree requirements: See page 47.

Required courses constituting a major in Economics: 205, 206, 307, 315, 317; Bus.Ad. 251, 252, 253, 330 or 370; Eng. 390; Govt. 231; Hist. 201 or 202, 212; Geog. 211; Phil. (any 2 hours); Math. 106a, 111. In addition to these courses, the student must elect one of the following fields of specialization:

Additional courses required for a specialization in Economic Analysis: 416, 440, 450, 451, 470, 481.

Additional courses required for a specialization in Public Finance: 330, 331, 340, 380, 432; Govt. 360, 395 or 495.

Additional courses required for a specialization in Banking: 416, 470; Bus.Ad. 320, 323, 334.

Additional courses required for a specialization in International Economics: 328, 460, 481; Govt. 370, 475; Foreign Language, 9 hours.

Additional courses required for a specialization in Labor Economics: 310, 411, 436, 470; Soc. 325; Psych. 315.

Additional courses required for a specialization in General Economics (College-level teaching): 310, 328, 330, 440, 470, 481.

Recommended elective in the above programs: Bus.Ad. 479 whenever the subject matter is appropriate to the chosen emphasis.

SUGGESTED CURRICULA IN THE COLLEGE OF LIBERAL ARTS AND SCIENCE

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Economics: 205, 206, 307, 315, 317; Bus.Ad. 250; Eng. 390; Hist. 201 or 202; Math. 106a; Govt. 231; Geog. 211. (Note: The hours of Hist. 201 or 202; Math. 106a, Govt. 231, and Geog. 211 are not counted in the major total.) Plus election of one of the fields of emphasis listed above under "School of Business and Industry."

SUGGESTED CURRICULA IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Economics: (48 quarter-hour major): 205, 206, 307, 315, 317; Bus.Ad. 251, 252, 253; Math. 106a; plus election of one of the fields of emphasis listed above under "School of Business and Industry." (36 quarter-hour major): 205, 206, 307, 310, 315, 317, 328, 330; Bus.Ad. 250; Math. 106a.

Students in economics are advised to take electives in the other social studies. The field is requiring more mathematics, and those planning to take advanced work in economics should early confer with a representative of the economics department on such possible areas of additional emphasis.

- 205-5. *Survey of Economic Principles*. Each term.
- 206-4. *Economic Principles and Problems*. Prereq, 205. Each term. For courses numbered in the 300's and 400's, both 205 and 206 prerequisite; exceptions which require 205 only: 307, 317, 355, 360, 380.
- 307-4. *Economic and Business Statistics*. 3 hours lecture; 2 hours laboratory. Prereq, 205 only; recommended, Math. 106a. Each term.
- 310-4. *Labor Problems*. Fall and Spring.
- 315-4. *Money and Banking I*. Each term.
- 317-4. *Economic History of the United States*. Prereq, 205.
- 328-4. *International Economics*. Winter.
- 330-4, 331-3. *Public Finance: National, State and Local, Fiscal Policy*.
- 340-3. *Public Utility Economics*.
- 355-3. *Economics of Consumption*. Prereq, 205. Winter.
- 360-3. *Regional Economy*. Natural economic regions, governmental action (as in the T.V.A.), local applications.
- 380-4. *Economics of War*. Mobilization, resource allocation, manpower, wage and price problems. Government economic policy. Post-war problems. Prereq, 205.
- 401-3 to 6. *Economic Readings*. Reading in books and periodicals in a defined field, under direction of one or more staff members. Periodic written and oral reports. Prereq, approval of chairman. Each term.

- 411-4. *Collective Bargaining and Dispute Settlement*. Nature, issues, procedures, economic effects. Analysis of actual collective bargaining situations.
- 416-4. *Money and Banking II*. Emphasis upon the Federal Reserve and other banking systems. Prereq, 315.
- 432-3. *Fiscal Policy of the United States*. Counter-cyclical, secular, and emergency uses of government expenditures, debt, and taxes.
- 436-3. *Government and Labor*. A study of labor relations and legislation concerning both constitutional and economic aspects. Prereq, 205 and Govt. 101 or 231 or 300; or consent of instructor. This course same as Govt. 436.
- 440-3. *Intermediate Theory*. A more intensive treatment of price and income theory.
- 450-3. *History of Economic Thought*. Great economists and the development of economic theory.
- 451-3. *Economic Theories*. A study of the theories of recent leading economists.
- 460-4. *Russian Economy*. A study of the development of Russian trade, agriculture, industry, government, finance, and standards-of-living in successive periods in relation to the historical, geographic, economic, and ideological background. Prereq, 205.
- 470-3. *Business Cycles*. Major business fluctuations in the United States; prices, employment, production, credit, inflation and deflation, and government action during the cycles. Prereq, 315 or 440.
- 481-3. *Comparative Economic Systems*. Capitalism, socialism, fascism, and other forms of the economy.

(See page 299 for Economics courses on the 500 level.)

INDUSTRIAL EDUCATION

PROFESSOR RALPH O. GALLINGTON, ED.D. (GEORGE WASHINGTON), CHAIRMAN	1955-56
PROFESSOR J. HENRY SCHROEDER, M.S. (IOWA)	1923
PROFESSOR ERNEST J. SIMON, M.S. (ILLINOIS), LL.D. (BRADLEY)	1950
ASSOCIATE PROFESSOR JOHN HOWARD ERICKSON, ED.D. (PENNSYLVANIA STATE)	1955
ASSISTANT PROFESSOR NICHOLAS B. CORBA, M.ED. (PITTSBURGH)	1954
INSTRUCTOR WILLARD A. BENSON, M.S. (STOUT INSTITUTE)	1949
INSTRUCTOR JOHN J. GUNDERSON, M.A. (OHIO STATE)	1949
INSTRUCTOR WILLARD C. HART, B.S. (ILLINOIS)	1950
INSTRUCTOR W. A. HOWE, M.S. (ILLINOIS)	1949
INSTRUCTOR MARVIN E. JOHNSON, M.S. (ILLINOIS)	1948
INSTRUCTOR JOHN F. PLUMMER, JR., M.A. (BALL STATE TEACHERS COLLEGE)	1949
INSTRUCTOR BENNY S. VINEYARD, M.S. (ILLINOIS)	1954
VISITING PROFESSOR ROBERT E. SMITH, PH.D. (OHIO STATE)	1954-56
LECTURER CHARLES B. BEATTY, M.S. (SOUTHERN ILLINOIS)	1954-56
LECTURER REX E. RAY, M.S. IN ED. (SOUTHERN ILLINOIS)	1954-56
LECTURER DONALD K. TALBOTT, B.S. (ILLINOIS)	1954-56

The Department of Industrial Education offers work in major fields leading to degrees as follows:

1. Bachelor of Science in Education. For students in the College of Education preparing to teach industrial education.
2. Bachelor of Science. For students in the School of Business and Industry preparing for supervisory positions in industry represented by the following options:
 - a. Industrial Design
 - b. Metal Processing
 - c. Industrial Personnel
 - d. Industrial Production Planning

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Industrial Education: 100, 112, 120, 122, 130, 145, 212, 226, 233, 306, 490, 496; Math. 111, 112; Physics 206, 207. Forty-eight quarter hours constitute an undergraduate major and thirty-six quarter hours constitute an undergraduate minor. Consult academic adviser for minor requirements.

SUGGESTED CURRICULA IN THE SCHOOL OF BUSINESS AND INDUSTRY

General degree requirements: See page 47.

Sixty-four quarter hours constitute an undergraduate major. Without a minor in another field, the industrial education student is required to complete a ninety-six quarter hour major and other specified courses.

The fields of mathematics, physics, business administration, psychology, art, and agriculture are recommended minor fields.

Required courses constituting a major in Industrial Education with a specialization in Industrial Design: 101, 112, 122, 145, 205, 206, 212, 222 or 226, 305, 307, 308, 309, 310, 350, 351, 352; Bus.Ad. 370; Econ. 205, 206; Math. 111, 112; Physics 206, 207; Psych. 201; Speech 101.

Required courses constituting a major in Industrial Education with a specialization in Metal Processing: 101, 112, 122, 145, 205, 212, 214, 222, 318, 322, 325, 360; Bus.Ad. 370; Econ. 205, 206; Math. 111, 112; Physics 206, 207; Psych. 201; Speech 101.

Required courses constituting a major in Industrial Education with a specialization in Industrial Personnel: 101, 112, 122, 145, 205, 212, 222 or 226, 495; Bus.Ad. 370, 374, 375; Econ. 205, 206, 310, 411; Math. 111, 112; Physics 206, 207; Psych. 201, 202, 315, 316, 317; Speech 101.

Required courses constituting a major in Industrial Education with a specialization in Industrial Production: 101, 112, 122, 145, 205, 206, 212, 222 or 226, 307, 308, 309, 310, 350, 351, 352; Bus.Ad. 250, 370, 374, 375, 471; Econ. 205, 206; Math. 111, 112, 113, 307; Physics 206, 207; Psych. 201, 315; Speech 101.

In general, students majoring in industrial education will be required to complete a minimum of 40 per cent of their work in the area of general education and a minimum of 40 per cent in the area of their specialization.

100-4. *General Shop*. An orientation to the various areas of industrial education. Lecture, discussion, and laboratory to present a broad

- exploratory experience. General-shop basis. Introduction of teaching methods and problems.
- 101-4. *Engineering Drawing I*. Freehand lettering, sketching, use of instruments, applied geometry, orthographic projection, dimensioning, pictorial drawing, auxiliary views, sections, conventional practices, and related information.
- 112-4. *Basic Woodwork*. Use of woodworking hand tools involving common joints and fasteners. Elementary carving and finishing. Use of the wood lathe, drill press, jig saw, and portable machines. Prereq, one course in mechanical drawing.
- 120-4. *Leatherwork and Plastics*. Elementary fundamental principles and practices involved in working leather and plastics.
- 122-4. *Machine Shop I*. Designed to aid in the development of the fundamental skills and information needed when operating the basic machine tools.
- 130-4. *Industrial Arts Drawing I*. Designed to acquaint prospective teachers with the purposes and problems of teaching elementary and secondary school students—emphasizing orthographic projection, pictorial representations, freehand sketches, and the reading of drawings and diagrams.
- 145-4. *Electrical Construction*. Application of electrical theory to the use of simple electrical equipment, of wiring, and of fire-underwriters' regulations. Structure, care, repair, and adjustment of home electrical devices; house-wiring.
- 204-4. *Architectural Drawing I*. Introduction to design of small structures with special emphasis on house planning; including the selection of building sites, types of architecture and construction, room planning and arrangement, elevations, building materials, decorating, landscaping, and contractual aspects. Prereq, 101 or 130.
- 205-4. *Engineering Drawing II*. Shop processes, secondary auxiliary views, screw threads and fasteners, inking and tracing, reproduction of drawings, decimal dimensioning, working drawings, welding drawings, and related information. Prereq, 101.
- 206 (106)-4. *Descriptive Geometry*. Graphical solution of problems involving the understanding of space relations of points, lines, and surfaces, inter-sections, and developments, and their application in industry. Prereq, 205, Math. 112.
- 212-4. *Machine Woodwork*. Operation, care, and use of woodworking machines for making useful projects involving the more advanced types of joints and construction; finishing; safety. Prereq, 112.
- 214-4. *Wood Pattern Making and Foundry*. The making of wood patterns of machine parts; molding (involving the cutting and tempering) sand; melting, handling and pouring of the molten metals. Prereq, 112.
- 216-4. *Furniture Upholstering and Finishing*. Care and use of the tools, materials, and fundamental processes of upholstering and finishing furniture.
- 222-4. *Machine Shop II*. Operation, care, and use of machine tools with emphasis on engine lathe, shaper, planer, and milling machine. Prereq, 122.

- 226-4. *General Metal I*. Fabricating, molding, shaping, and heat treating common metals. Study of tools, processes, and related technical information as related to bench metal, sheet metal, foundry, heat treating, and oxy-acetylene welding.
- 233-4. *Industrial Arts Drawing II*. A continuation of 130—emphasizing problems solving, revolutions, auxiliaries, screw threads, fasteners, working drawings, inking, tracing reproduction of drawings, developments, intersections, and practice in the use of the chalk board as a teaching aid. Prereq, 130.
- 245-4. *Communications Equipment*. A study of the three basic divisions of the communications industry—telephone, telegraph, and radio. Construction, testing, maintenance, and related technical information of basic electrical circuits and devices in each division. Prereq, 145, Physics 107.
- 260-3. *Analytical Mechanics (Statics)*. Resultants of force systems, algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of trusses, frames; forces due to friction; centroids. Prereq, registration in Math. 251.
- 261-3. *Analytical Mechanics (Dynamics I)*. Displacement, velocity and acceleration of a particle; translation; rotation; plane motion. (Kinematics). Prereq, 260.
- 262-3. *Analytical Mechanics (Dynamics II)*. Solutions using the principles of force, mass and acceleration, work and energy, and impulse and momentum. (Kinetics). Prereq, 261.
- 263-4. *Surveying I*. Use of transit, level, and tape; fundamental surveying procedures and office computations; land surveying; topographic surveying. Prereq, 205, Math. 113.
- 264-4. *Surveying II*. Topographic surveying; field astronomy; route surveying; stream gaging; introduction to photogrammetry. Prereq, 263, credit or registration in 353.
- 302-4. *Construction Methods for Primary Teachers*. Various media such as wood, metal, and paper. Acquainting the primary teacher with the materials, tools, and processes students at the primary level can manipulate and use in the classroom.
- 303-4. *Construction Activity Methods for Rural and Elementary Schools*. Experience in constructional activities involving the use of wood, metal, leathers, plastics, reed, raffia, clay, and other materials adaptable to the needs and interests of the rural and elementary schools.
- 304-4. *Architectural Drawing II*. A continuation of 204—emphasizing instrument drawings of an original design of a residence, set of prints and complete specifications. Prereq, 204.
- 305-4. *Machine Drawing*. Piping layouts, gears, cams, keys, rivets, springs, precision and limit dimensioning, assembly drawings, parts lists, and details with emphasis on established industrial practices. Prereq, 205 or 233.
- 306-4. *Industrial Arts Design*. Principles of structural design, contour, and surface enrichment applied to shop projects. Prereq, 233.
- 307-4, 308-4, 309-4. *Machine Design*. Stress and strain analysis of linkages and structural members. Designing of machine parts from

- simple to complete. Taken in sequence. Prereq, junior standing.
- 310-5. *Applied Mechanics*. A study of fundamental concepts of forces, and force systems. Including solutions using principles of force, mass, acceleration, work, and energy. Prereq, Physics 206 or 211.
- 313-4. *Furniture Construction and Cabinet-Making*. Design and construction of special pieces of furniture and elementary cabinet work. Prereq, 212.
- 318-4. *General Welding I*. A course covering basic working knowledge of electric arc welding, oxy-acetylene welding, and flame cutting. Emphasis placed on shop safety, care and use of welding equipment, and preparation of related instructional materials. Prereq, 122 and 226.
- 322-4. *Machine Shop III*. Machine shop practices involving the construction of machines and tools for practical use. Advanced industrial production practices and related technical information. Prereq, 222.
- 325-4 to 12. *Advanced Machine Shop*. Designed for students preparing for specific jobs in industry. Prereq, 322.
- 328-4. *General Welding II*. Specialized training in oxy-acetylene and electric welding. Related information including a study of welding safety, torches, manifolds, tanks, filler rods. Students to pass tests of welding proficiency. Prereq, 318 or equivalent.
- 329-4. *General Metal II*. Designed to provide experience in patternmaking, founding, forging, heat-treating, raising, etching and spinning metals. Study of tools, machines and information relating to these processes. Prereq, 226 or equivalent.
- 332-4. *Fundamentals of Transportation*. Driver training involving responsibilities for detecting unsafe operating conditions. Required accessories and uses. Care, functions, and condition of major operating parts. Knowledge and use of tools and equipment necessary for making emergency adjustments for safe driving.
- 341-4. *Machine and Tool Maintenance*. Sources, manufacture, supply, cost, sharpening, adjusting and repairing saws, drills, drill-presses, jointers, lathes, milling machines, shapers, sanders, and other machines, as well as hand tools used in the various industrial education shops.
- 342-4. *Painting and Finishing*. Practices and procedures in painting, staining, varnishing, enameling, lacquering, using transfers; practice in the use of the spray gun. Study of the chemical elements of various finishes; proper care of finishing equipment and materials.
- 345-4. *Industrial Electronics*. A study of basic electronic circuits and devices commonly used in various industries. Analysis, construction, testing and maintenance of such circuits as induction heating, photoelectric, time delay, rectifier, and electro-plating. Emphasizing electronic testing equipment studies and correct use of such equipment. Prereq, 245, or consent of instructor.
- 350-4. *Jig and Fixture Design I*. A course designed to contribute to the understanding of mass production, planning, and procedures; with special emphasis on the designing of jigs and fixtures. Prereq, 305 and 307, or registration in 307.
- 351-4. *Jig and Fixture Design II*. Special tools and dies. Consideration of

- set-up design and automatic, semi-automatic, and hand-fed production devices. Prereq, 350.
- 352-4. *Jig and Fixture Design III*. More advanced practices in the design of special devices as they are related to production line procedure. Prereq, 351.
- 353-3. *Advanced Drafting for Civil Engineers*. Map drawing, architectural working drawings, structural steel drawings, reinforced concrete, and timber. Charts and diagrams. Prereq, 206.
- 354-3. *Advanced Drafting for Mechanical Engineers*. Limit dimensioning for interchangeable assembly; architectural working drawings for heating, ventilating, and pipe layouts. Charts and diagrams. Use of log-log scales in mechanical engineering problems. Prereq, 206.
- 360-4 to 12. *Specialized Advanced Machine Shops*. Designed to continue student specialization in metal fabrication. Production process or operation sheet writing. Prereq, 325.
- 365-4. *Industrial Safety*. Study of the frequency and occurrences of accidents in industrial pursuits, their causes, means of reduction and prevention through education, supervision and the use of functional safety devices.
- 400-4. *Production Illustration*. Axonometric projection, perspective, line and surface shading, exploded views, pictorial details, and assemblies with special emphasis on illustration for assistance to assembly personnel and for catalog and advertising purposes. Prereq, 205 or 233.
- 430-2 to 6. *Special Problems in the Arts and Industries*. An opportunity for students to obtain special instruction in the solution of problems in specific subject-matter fields.
- 480-4. *Problems of Elementary Industrial Education*. Problems involved in teaching and supervising industrial education at the elementary school level.
- 490-4. *Principles of Industrial Teaching*. Activities of industrial education teacher in the promotion of interest and motivation of learning in industrial subjects. Emphasis on planning and methods of presentation.
- 491-4. *Principles of Trade Teaching*. A continuation of 490, with emphasis on methods of teaching trade subjects.
- 492-4. *School Shop Planning*. Principles and practices underlying modern school shop planning. Actual school shop plans a requirement.
- 494-3. *Organization and Administration of Industrial Education*. Principles and policies governing the administration of industrial education programs in elementary, junior, senior high schools; relation of federal and state supervision of industrial education to local administration.
- 495-3. *Occupational Analysis*. Analysis of automotive, electrical, metal working, woodworking, and building industries; study of industrial practices and principles.
- 496-4. *Selection and Organization of Subject Matter*. Selection and arrangement of teaching content, preparation of assignment, operation, information and job sheets, preparation of tests.

(See page 324 for Industrial Education courses on the 500 level.)

SCHOOL OF COMMUNICATIONS

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN C. HORTON TALLEY, PH.D. (IOWA)	1948
CHIEF ACADEMIC ADVISER PAUL HUNSINGER, PH.D. (NORTHWESTERN)	1949
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. McGRATH, PH.D. (IOWA)	1949

In the Spring of 1955 the School of Communications was established to co-ordinate and facilitate the development of curricula, to provide instruction, and to stimulate research in the effective use of such communications media as public speaking, television, radio, newspapers, and magazines, and to provide service work in this field for the other educational units requiring it.

The School is composed of the Departments of Journalism and Speech. Both departments offer curricula in the College of Education and offer the Bachelor of Science degree in the School of Communications to persons completing majors in one of the various curricula of these departments. The Speech Department also offers a major in the College of Liberal Arts and Sciences composed of non-professional speech courses. Minors are offered by both departments for students electing to major in other fields.

All students majoring in either of the departments of the School must meet all of the general University requirements listed on page 47, as well as the specific requirements of their major field.

JOURNALISM

PROFESSOR JAMES L. C. FORD, PH.D. (MINNESOTA)	1955
PROFESSOR HOWARD R. LONG, PH.D. (MISSOURI), CHAIRMAN	1953
ASSOCIATE PROFESSOR DONALD G. HILEMAN, PH.D. (ILLINOIS)	1955
ASSISTANT PROFESSOR GEORGE C. BROWN, M.S. (KANSAS STATE TEACHERS COLLEGE)	1956
ASSISTANT PROFESSOR C. WILLIAM HORRELL, D.ED. (INDIANA)	1949
ASSISTANT PROFESSOR WILLIAM H. LYONS, M.A. (COLORADO)	1951
ASSISTANT PROFESSOR FRANCIS D. MODLIN, M.S. (KANSAS STATE TEACHERS COLLEGE)	1954
ASSISTANT PROFESSOR D. WAYNE ROWLAND, M.A. (MISSOURI)	1955
INSTRUCTOR DONALD R. GRUBB, M.A. (MINNESOTA)	1949
VISITING PROFESSOR CHARLES C. CLAYTON, B.J. (MISSOURI)	1955-56

The Department of Journalism offers curricula leading to the degrees of:

1. Bachelor of Science in Education.

2. Bachelor of Science. For students in the School of Communications with a specialization in:
 - a. Advertising
 - b. Agricultural Journalism
 - c. Community Newspaper
 - d. Newspaper Business Management
 - e. News and Editorial
 - f. Printing and Education
 - g. Printing Management

Journalism candidates must demonstrate a working knowledge of type-writing, based upon a minimum straight copy rate of 25 words per minute. This proficiency may be demonstrated during the first year by taking the test offered by the Department of Business Administration, or the student may enroll in Business Administration 102. In the latter case, the hours of credit will not count toward the journalism major.

A major in journalism consists of 48 quarter hours. Journalism 101, 102, 103, 201, and 202 are required for the major.

The Department's curriculum is designed to give thorough professional training in both theory and practice in a number of fields of journalism. The media include daily and weekly newspapers, advertising, radio and television news, and education. The program includes research, professional conferences, field trips, aid to high school newspapers and yearbooks, and extension classes.

SUGGESTED CURRICULA IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Journalism with a specialization in Educational Journalism: 203, 390, 421, 422; Education 355; Student Teaching.

Recommended electives for this specialization: 214, 260, 391, 370.

Required courses constituting a major in Journalism with a specialization in Printing and Education: 214, 314B, 374, 334B, 375, 201B, 276, 202B, 312B, 301B, 314B, 114, 115, 313B, 315B, 381B, 305B, 364B.

SUGGESTED CURRICULA IN THE SCHOOL OF COMMUNICATIONS

General degree requirements: See page 47.

Required courses constituting a major in Journalism with a specialization in Advertising: 214, 370, 372, 315, 371, 373, 376.

Recommended electives for this specialization: 260, 331, 432, 433, 340.

Required courses constituting a major in Journalism with a specialization in Agricultural Journalism: Agric. 114, 124, 125, 260, 105, 231, 207, 208, 231, 213, 202, 350, 360; Journ. 394, 203, 310, 391, 390.

Recommended electives for this specialization: 214, 260, 330, 340.

Required courses constituting a major in Journalism with a specialization in Community Newspaper: 114, 115, 116, 214, 340, 350, 351.

Recommended electives for this specialization: 260, 330, 370, 371.

Required courses constituting a major in Journalism with a specialization

in Newspaper Business Management: 370, 381, 382, 383, 384; Bus.Ad. 251, 252, 253.

Recommended electives for this specialization: 214, 260, 371, 378, 383B.

Required courses constituting a major in Journalism with a specialization in News and Editorial: 203, 330, 340, 390, 391.

Recommended electives for this specialization: 260, 214, 360, 370, 432.

Required courses constituting a major in Journalism with a specialization in Printing Management: 114, 115, 201B, 202B, 214, 301B 304B, 305B, 306B, 312B, 313B, 314B, 315B, 324B, 334B, 361B, 362B, 363B, 374, 375, 376, 381B, 382B, 383B, 384B; Bus.Ad. 230.

JOURNALISM COURSES

- 101-3, 102-3. *Introduction to Journalism I, II*. Development of the newspaper in America; role of the press in modern society.
- 103-3. *News*. Study of the newspaper story with experience in writing and rewriting news; the fundamentals of copyreading.
- 114-3, 115-3, 116-3. *Composing Machines I, II, III*. Elementary keyboard practice; progressive exercises; adjustments, and maintenance.
- 201-3, 202-3, 203-3. *Newswriting and Editing I, II, III*. How to cover assignments and write news stories; preparation of copy for publication; writing headlines; laboratory experiences.
- 214-3. *Typography*. Fundamental operations and materials used in printing; use of type, illustrations, and other elements of layout and composition.
- 260-3. *Beginning Photography*. Picture taking techniques and darkroom procedures emphasizing the camera in the modern press.
- 310-3. *Radio News Writing*. Introductory course offering the basic techniques of writing radio news copy.
- 315-3. *Advertising Typography and Layout*. Effective advertising layout; visualizing the idea; principles of type selection; the selection of paper and preparation of cuts; general technique of producing the advertisement. Prereq, Journalism 370, 214.
- 330-3. *Editorial Writing*. The work and responsibility of the editor and editorial writer with emphasis upon editorial writing and thinking. Editorial problems, methods, policies and style.
- 331-3. *Public Relations*. Study of current methods of planning and executing public relations policies; evaluation of media; preparation of campaigns.
- 340-3. *The Law of Journalism*. Legal limitations and privileges affecting publishing and broadcasting. Libel, privileged publications, fair comment and criticism, contempt of court, right of privacy, copyright, and legal provisions affecting advertising.
- 350-3. *The Community Newspaper*. The small newspaper recognized as a distinct medium, performing a specialized function for its readers. Equal weight given to the problem of news presentation and to the leadership function with careful examination of news and editorial policies of representative newspapers in the field.
- 351-3. *Community Newspaper Management*. Organization, operation, and policy of the revenue departments of the weekly and small daily

- newspaper with special attention to the circulation procedures, retail, general, and classified advertising problems, and other phases of management.
- 352-3. *Community Newspaper Production*. Participation in the actual preparation of one or more issues of a newspaper for publication; news, editorial, advertising.
- 360-3. *Press Photography*. Special work outdoors and indoors with flash equipment; assignments in studio portraiture and illustrative photography.
- 361-3. *Advanced Press Photography*. Continuation of 360; student given special newspaper assignments and encouraged to attempt free lance work.
- 362-3. *Advertising and Free Lance Photography*. Free lance and advertising problems with special studio work in advertising photo-techniques; a study of picture markets.
- 363-3. *Staff Photography*. Live picture assignments for newspaper and magazine publications.
- 364-3. *Picture Editing*. A study of techniques. Emphasizing use of single picture, the sequence and series, making assignments, scaling prints for reproduction, and writing outlines. Prereq, nine hours of photography.
- 370-3. *Principles of Advertising*. Advertising fundamentals in relation to modern business activities; economic and social aspects, research, media, appeals, production, schedules. Prereq, Econ. 205.
- 371-3. *Advertising Salesmanship*. Practical application of the principles of advertising copy and layout as related to the mechanics and psychology of space selling. Students engage in daily work with newspaper advertisers handling specific assignments in various lines of business. Prereq, 370.
- 372-3. *Advertising Copy Writing*. The principles and practices of advertising copy writing; the basic problem of approach and development of copy; practice in preparation of all types and form of advertising copy. Prereq, 370.
- 373-3. *Advertising Markets and Media*. Manufacturers' advertising procedures related to campaigns, markets and market research, media, and organization of the advertising function. Prereq, 370.
- 374-3, 375-3. *Typographical Layout, I, II*.
- 376-3. *Advertising Campaigns*. Application of advertising principles and skills to the solution of a specific advertising problem; co-ordination of strategy and technique in the planning and execution of an advertising campaign. Prereq, permission of instructor.
- 377-3. *Radio and Television Advertising*. Writing of radio and television commercials, spot announcements, and preparation of sales and sales promotion plans, with emphasis on the use of media by retailers.
- 378-3. *Classified Advertising*. Fundamentals of classified advertising, rate structures, classified copywriting, and salesmanship. Prereq, permission of instructor.
- 379-3. *Advanced Advertising Salesmanship*. Experience in more comprehensive problems of advertising salesmanship, involving the plan-

- ning and execution of advertising budgets, seasonal promotions, and sustained retail programs. Prereq, permission of instructor.
- 381-3. *Newspaper Promotion*. Procedures as applied to the community, newspaper personnel, carrier salesman, and general and retail advertisers.
- 382-3. *Newspaper Circulation*. Circulation procedures; organization revenues and rate structures, carriers and carrier salesmen, Audit Bureau of Circulations, and second class mail regulations.
- 383-3. *Newspaper Production Management*. Organization and function of mechanical department; costs and cost accounting; personnel problems.
- 384-3. *Newspaper Administration*. Problems and policies of newspaper publishing.
- 390-3. *Advanced Reporting*. Covering city council meetings, courthouse, city hall, courts, society, and other special assignments.
- 391-3. *Feature Writing*. How to plan and write newspaper features and special articles.
- 392-3. *Reporting Special Events*. Experience in planning and executing coverage of conventions, expositions, and tours; special editions; interpretative news stories.
- 393-3. *Publicity Methods*. Not open to journalism majors. Designed for students who do not plan a career in writing, but desire guidance and practice in writing for newspapers and magazines about their fields of specialization.
- 394-3. *Agricultural Journalism*. Reporting and writing farm and home news, features; selecting farm photographs.
- 396-3. *Editorial Production*. Practical work in the details of planning and producing one or more issues of a newspaper, field trip.
- 397-3. *Special Publications*. Practical work in planning and producing magazine or trade publications.
- 414-4. *Newspaper and Periodical Design and Typography*. Principles underlying contemporary printing developments. Influences affecting the design and typography of printed media with analysis of major trends in format, makeup, layout, and typography.
- 421(321)-4 *School Publications*. Designed for the prospective journalism teacher or high school publications director. Deals with practical production problems of newspaper and yearbooks.
- 422(322)-3. *Teaching High School Journalism*. Teaching methods of journalism in secondary schools; organization and course of study; bibliography; use of journalism courses for school publication production.
- 432(332)-3. *Communication Agencies and Public Opinion*. Press, radio, television and motion pictures and their role in the opinion process.
- 433(333)-3. *Measurement of Public Opinion*. The sampling survey as a research tool; survey methodologies.
- 434(334)-3. *The Newspaper and Special Interest Groups*. Analysis of the role of communication agencies in propaganda; special interest groups in newspaper policy; case study in propaganda operations.
- 495(395)-3. *Book Reviewing*. Theory and practice in reviewing modern

books; study of newspapers and magazines devoted entirely or in part to this type of journalism.

(See page 325 for Journalism courses on the 500 level.)

PRINTING COURSES

- 201B-3. *Presswork I*. Introduction to platen press operation; simple imposition and lockup; preparation of the press, feeding and care of the press.
- 202B-3. *Presswork II*. Automatic feeders, hand-fed cylinder presses, and folding machines.
- 301B-3. *Presswork III*. Automatic cylinder presses and press attachments.
- 304B-3, 305B-3. *Printing Production I, II*. Planning, layout, estimating, scheduling, and manufacture of all classes of job work and publications, either by letter press or offset; selecting and purchasing factors of production, budgeting, routing, dispatching, and production control records and reports.
- 306B-3. *Printing Operation Analysis*. A study of work simplification methods; procedures for establishment of standards; time study and incentive plans.
- 312B-3. *Bindery*. Practical use of bindery equipment.
- 313B-3. *Color in Printing*. Application of color in graphic arts design and color reproduction; printing inks.
- 314B-3. *Paper*. Early papermaking; present paper technology; classification of papers; converting techniques; paper selection; testing specifications, standards, trade customs, trends in paper technology.
- 315B-3. *Book Design*. Historical development of the book with special emphasis on the work of contemporary designers; modern bindery methods, materials, and design; projects in book design, illustration, binding and case construction.
- 324B-3. *Typography II*.
- 334B-3. *Typography III*.
- 361B-3. *Photolithography I*. Theory and practice of photography, copy preparation, layout and stripping, plate making for offset lithography.
- 362B-3. *Photolithography II*. Emphasis on presswork; direct and indirect color separation techniques; operation and maintenance of offset presses.
- 363B-3. *Photolithography III*. Advanced presswork; emphasis on operation and maintenance.
- 381B-3, 382B-3. *Estimating I, II*. Elements of estimating on all classes of composition presswork, binding, paper, halftones, line cuts, and electrotypes; application of the elements of cost finding to jobs of printing in process; special problems in offset estimating.
- 383B-3. *Printing Cost Analysis*. Cost accounting and statistics as instruments of control in production, sale, and finance; allocation of material and labor costs; distribution of manufacturing expense; standard cost procedures; preparation and use of cost analysis reports.
- 384B-3. *Printing Management Seminar*. Principles relating to the organization and operation of all departments of a printing plant; the

application of management procedures in planning and control; plant layout, equipment policies; materials handling; budgeting, purchasing, cost analysis, job evaluation, personnel relations, safety. Planned inspection trips for the purpose of analyzing and comparing operating and management techniques.

SPEECH

PROFESSOR ISAAC P. BRACKETT, PH.D. (NORTHWESTERN)	1951
PROFESSOR ARCHIBALD McLEOD, PH.D. (CORNELL)	1947
PROFESSOR C. HORTON TALLEY, PH.D. (IOWA), ACTING CHAIRMAN	1948
ASSOCIATE PROFESSOR JOHN O. ANDERSON, PH.D. (OHIO STATE)	1950
ASSOCIATE PROFESSOR CHESTER J. ATKINSON, PH.D. (OHIO STATE)	1955
ASSOCIATE PROFESSOR LESTER R. BRENNAN, PH.D. (OHIO STATE)	1954
ASSOCIATE PROFESSOR CAMERON W. GARbutt, PH.D. (LOUISIANA STATE)	1947
ASSOCIATE PROFESSOR PAUL HUNSINGER, PH.D. (NORTHWESTERN)	1949
ASSISTANT PROFESSOR SHERWIN F. ABRAMS, PH.D. (WISCONSIN)	1955
ASSISTANT PROFESSOR WALTER H. MURRISH, PH.D. (DENVER)	1954
ASSISTANT PROFESSOR BUREN CALVIN ROBBINS, M.A. (IOWA)	1949
ASSISTANT PROFESSOR LAWRENCE VOSS, A.M. (CORNELL)	1950
LECTURER JOSEPH M. RIPLEY, M.A. (OHIO STATE)	1955-56
LECTURER DORIS J. TAYLOR, M.A. (SOUTHERN ILLINOIS)	1953-56

The Department of Speech offers curricula leading to the degrees of:

1. Bachelor of Science in Education, in the College of Education as secondary teachers of speech.
2. Bachelor of Science in Education, in the College of Education for Speech Correction majors.
3. Bachelor of Arts, in the College of Liberal Arts and Sciences.
4. Bachelor of Science, in the School of Communications, with concentration in
 - a. Interpretation
 - b. Public Address
 - c. Radio-Television
 - d. Theater

The University is equipped with complete and technically professional radio studios, in which a large number and variety of radio programs, from all departments of the University as well as from the Southern Illinois area, are produced. Complete training is furnished in all aspects of radio: announcing, radio acting, writing, production and studio procedures, as well as technical phases.

The Southern Playhouse offers to all students opportunities for practical experience in every phase of dramatic production: acting, stagecraft, costuming, lighting, publicity, and business. Under the supervision of three members of the Speech Department, who serve as directors, the Southern Players produce each year seven three-act plays in the Playhouse. Each spring term the Southern Players, a theatrical troupe composed of speech students registered in the Theatre Practicum course (Speech 322) tour Southern Illinois for six weeks performing daily a regular three-act play and a play for children.

Speech Correction, Pathology, and Audiology is an area which has as its objective the training of qualified personnel to work with people handicapped in either speech or hearing. Positions are available in the public schools, colleges, and universities, and in highly specialized public or private clinics. Experience is obtained through work in the Southern Illinois University Speech and Hearing Clinic at the Therapy Center, which is affiliated with the Southern Illinois Society for Crippled Children and Adults, the University Training School, a six-weeks summer camping program for crippled children in co-operation with the Division of Services for Crippled Children and the Easter Seal Society, rehabilitation work as sponsored by the Division of Vocational Rehabilitation, and a traveling speech and hearing clinic which serves schools in the area through the media of surveys and consultations.

SUGGESTED CURRICULA IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Speech with a specialization in the Secondary Certificate Program: 101, 102, 103, 202, 205, 208 (1 hour), 209 (1 hour), 302, 306, 367, 373 (1 hour), 408, 427, 428. This totals 48 hours (including 4 added hours of activities as indicated below).

Activities credit: A total of 7 hours of activity credit must be presented for the speech education major. Credit may be earned either in collegiate or intercollegiate participation or in connection with Speech Methods courses 306, 302, and 427. Certification in methods courses is made by the Directing Supervisor of Speech at University School.

Recommended electives: 104, 200, 201, 301, 360, 402.

Required courses constituting a major in Speech Correction: (1) 24-28 quarter hours from American Public Education, Child Psychology, Mental Hygiene or Personality Adjustment, Tests and Measurements, Psychology of Exceptional Children; (2) 30-38 quarter hours of Speech Correction; (3) 8 quarter hours in field of hearing; (4) 200 clock hours of supervised case work in teacher-training center.

Recommended courses to meet requirements of items 2 and 3 above: 200, 212, 318, 319, 405 (4-12 hours), 406, 412, 414, 419.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCE

General degree requirements: See page 47.

College of Liberal Arts and Sciences degree requirements: See page 154.

Required courses constituting a major in Speech: 101, 102, 103, 202, and additional courses, to total 48 quarter hours.

Required courses constituting a minor in Speech: 101, 102, 103, and additional courses to total 24 quarter hours.

SUGGESTED CURRICULA IN THE SCHOOL OF COMMUNICATIONS

General degree requirements: See page 47.

Required courses constituting a major in Speech with a specialization in Interpretation: 60 hours of Speech including 103, 104, 204, 215, 217, 314, 320, 350, 360, 370, 404, plus 12 hours of English literature.

Required courses constituting a major in Speech with a specialization in Public Address: 60 hours of Speech including 101, 102, 201, 202, 205, 209, 213, 301, 309, 401, 407.

Required courses constituting a major in Speech with a specialization in Radio-Television: 48 hours of Speech including 101, 102, 103, 104, 161, 251, 351, 373, 393. In addition, all students must, by the close of the freshman year, demonstrate an ability to type straight copy at the rate of 25 words per minute. This requirement can be met in either of two ways: (1) passing a test to be administered by the Department of Business Administration, or (2) enrolling in Business Administration 102. (This may not be counted toward the Speech major.)

Electives: 35 hours of senior college credit.

Required courses constituting a major in Speech with a specialization in Theater: 72 hours of Speech including 101, 103, 204, 206, 208, 214, 305, 308, 312, 313, 314 or 322 (12 hours minimum), 320, 402, 403, 430, 432, 438; Art 100 (8 hours); English 206, 360, 365 or 366, 363 or 404 or 406.

Recommended electives for this specialization: 266, 365; Phil. 360.

GENERAL SPEECH COURSES

- 101-4. *Principles of Speech*. Development of an understanding of basic principles and proficiency in the skills involved in everyday communication. Prerequisite to all other courses in speech except 108, 201, 302, 303, 304, 340, 428—unless by permission of the instructor and department chairman.
- 104-4. *Training the Speaking Voice*. Designed for those students who desire to improve their voice and articulation.
- 108-4. *Speech for Foreign Born*. Designed to facilitate the learning of American English. May be substituted by foreign-speaking students for Speech 101.
- 200-4. *Phonetics*. Instruction in the use of phonetic symbols to record the speech sounds of Midland American English, with emphasis on ear training, and a description of place and manner of production of these sounds.
- 201-2. *Parliamentary Law*. How to conduct a meeting. Study and practice of the rules of parliamentary procedure.
- 203-4. *Introduction to Speech Science*. An introduction to the science of general speech including the history of research in the field and significant experimental trends in the future. Open to all students.
- 211-4. *Applied Phonetics*. Study of certain dialects of the English language: mountain, Yiddish, Negro, Irish, Scotch, Cockney, French, German, Italian, Spanish. Prereq. 200.
- 393-4. *Radio and Television in Society*. (see Radio and Television for description)
- 398-4. *General Semantics*. The study of means of changing implications so that language, in spoken or written form, describes the life facts.
- 408-4. *Psychology of Speech*. Nature and development of speech, its basic psychology, and the part speech plays in personality development.
- 440-4. *Advanced Phonetics*. Phonetic theory. Materials and methods of linguistic geography. Prereq. 200.

(See page 341 for Speech courses on the 500 level.)

PUBLIC ADDRESS COURSES

- 102-4. *Public Speaking*. Analysis of audience motives and reactions stressed in the approach to speech preparation for typical public speaking situations. Each quarter.
- 202-3. *Principles of Discussion*. Principles and methods of group discussion. Current problems used as material for discussion. Fall and Spring.
- 205-3. *Principles of Argumentation and Debate*. Principles of argument, analysis, evidence, reasoning, fallacies, briefing, and delivery. Prereq, 101 and 102 or 202. Fall.
- 209-1. *Forensic Activities*. Not more than three quarter hours of credit, and not to exceed two each year, to be secured for participating in forensic activities. Each quarter.
- Note: No credit in excess of nine hours allowed for forensic and dramatic activity courses.
- 213-4. *Speech Composition*. Rhetorical techniques of public address. One major speech prepared, with every possible refinement. Prereq, 102. Fall.
- 301-4. *Persuasion*. Psychological principles involved in influencing individuals and groups. Prereq, Psych. 201 and 12 hours of speech. Winter.
- 303-4. *Business and Professional Speaking*. Speaking needs of business and professional people. Technical reports and lighter types of speaking included in the types studied. Primarily for adult and extension classes. On demand.
- 309-1. *Forensic Activities*. Similar to 209. Prereq, 18 hours of speech and junior standing. Each quarter.
- 407-4. *History of American Public Address I*. Critical studies of American speakers; a study of selected speakers and speeches which reflect the dominant social and political ideas in American history. A lecture, reading, and discussion course. Fall.
- 413-4. *History of American Public Address II*. A continuation of Speech 407; may be taken independently. Winter.
- 417-4. *Contemporary Public Address*. A critical study of speakers and speeches selected to present the characteristic ideas of leading social and political developments in national and international affairs since 1918. A lecture, reading, and discussion course. Spring.
- 450-4. *Homiletics*. (for ministers). The organization, construction and delivery of the sermon. Emphasis will be on the speech of the minister and rhetorical features in sermons rather than on content. Fall.

THEATER COURSES

- 106-4. *Introduction to the Theater*.
- 204-4. *Acting*. A study of acting techniques. Prereq, 103. Fall.
- 206-2. *Stagecraft I*. Techniques of production in the non-professional theater.
- 208-1. *Dramatic Activities*. One hour credit per term, but not more than two per year to be earned by participation in major college plays. Each quarter.
- 214-2. *Stagecraft II*. A continuation of 206. Prereq, 206. Each quarter.

- 302-4. *Play Production*. Selection and production of plays for the educational theater. Prereq, 206. Spring.
- 305-2. *Stage Make-Up*. Various types of make-ups; straight, comic, old age, national, etc. Fall.
- 308-1. *Dramatic Activities*. Same as 208, but requiring 18 hours of speech and junior standing. Each quarter.
- 310-3. *Children's Theater*. Dramatization of children's stories, and presentation of plays for children. Prereq, 302 or 312. Winter.
- 312-4. *Stage Design*. Elements of design in lighting, settings, costumes. Prereq, 204, 206. Fall.
- 313-4. *History of the Theater, 1*. The theater and theatrical art from the beginning to the Renaissance. Winter.
- 314-4. *Advanced Acting*. Focus on speaking dialogue, especially dramatic verse. Prereq, 204. Winter.
- 322-2 to 12. *Practicum in Theater*. Practical experience in acting, production, and other associated theater work in campus and area production. Spring.
- 402-4. *Directing*. Selection of plays, casting, and methods of rehearsal. Development of characterization, control of tempo, and similar problems studied. Students to direct or to aid in directing one-act and major plays. Prereq, 204, 206, and 312. Fall.
- 403-4. *Aesthetics of the Drama and the Theater*. A study of the principles and practice of dramatic production in the light of modern aesthetic theory. A course attempting to formulate an aesthetic judgment of the theater. Prereq, 402. Winter.
- 410-4. *Creative Dramatics*. Principles of creative dramatics. Methods of developing original dramatizations with kindergarten-primary school children. The course will be developed through study, observation, and practice. Prereq, senior or graduate standing with either a kindergarten-primary or speech major. Spring.
- 430-4. *Drawing for the Stage*. Orthographic, isometric, and perspective drawing necessary for producing floor plans, elevations pictorial views, and working drawings essential in dramatic production. Prereq, 312. Winter.
- 432-4. *Stage Lighting*. Instruments and control equipment; principles and techniques of lighting dramatic productions. Spring.
- 438-4. *Contemporary Developments in the Theater*. Theory and practice of modern theatrical production; a critical study of theory and practice in acting, directing, production, and architecture. The rise and development of the film, radio, and television as dramatic media. Fall.

ORAL INTERPRETATION COURSES

- 103-4. *Oral Interpretation*. A basic course for speech majors, teachers, preachers, and those interested in the analysis of good literature and the oral communication of the literature to an audience. Each quarter.
- 215-4. *Oral Interpretation of Prose*. The study of prose literature and the problems of communicating the thought, feeling, and viewpoint of the author to the audience. Prereq, 103. Fall.

- 217-4. *Oral Interpretation of Poetry*. The reading of poetry and the interpretation of the thought and emotional content of the poetry to an audience. Prereq, 103. Winter.
- 320-4. *Oral Interpretation of Dramatic Literature*. Reading, selecting, cutting, and the presentation of various types of dramatic literature. Each person in the class gives a final recital program of readings. Prereq, 103. Spring.
- 350-4. *Oral Interpretation of Sacred and Classical Literature*. The analysis of prose, poetry, and drama of sacred and/or classical nature and the interpretation of this material to an audience. Prereq, 103. Fall.
- 360-4. *Advanced Techniques of Oral Interpretation*. Choral reading, "Chamber Theatre," reading plays, monodramas, and the techniques of selecting, cutting, and adapting literature for oral presentation. Prereq, 103. Winter.
- 370-4. *Prosody*. The study of the art or science of versification and the interpretation of the technical elements of literature. Prereq, 103. Winter.
- 404-4. *Recital and Lecture Recital*. Study of professional work on the public platform which is climaxed by a lecture or recital of a professional nature. Prereq, 12 hours of public speaking or interpretation or theatre. Spring.

RADIO AND TELEVISION COURSES

- 161(107)-4. *Radio-TV Speaking*. Voice production. Emphasis on enunciation. Broadcast equipment is related to effective microphone delivery. Much microphone practice. Numerous voice recordings. Fall, Winter, and Spring.
- 251-3. *Survey of Broadcasting*. A survey of the entire broadcasting industry: the history of various world systems of broadcasting, network structures, place of government, networks, and pressure groups in broadcasting. Prerequisite for all upper level courses. Winter.
- 256-4. *Fundamentals of Radio Writing*. Writing in the oral style and for sound. Short continuity forms. Creation and scripting of simple program ideas. Production and recording of scripts for evaluation of writing. Fall.
- 261-4. *Radio Announcing*. The place of the announcer in the radio industry. Microphone philosophies and techniques. Vocabulary building. Pronunciation. Varying styles of announcing. Much microphone practice. Numerous voice recordings. Prereq, 161. Winter.
- 266(216)-4. *Basic Radio Production*. Equipment and techniques used in the production of radio programs. Analysis of programs. Student participation in several programs. Spring.
- 351-4. *Radio Programs and Audiences*. The structure of individual radio programs. Programming objectives and programming schedule patterns with different stations. Audience appeals and characteristics. Audience analysis methods. Listening assignments and program analysis. Prereq, for all upper level courses. Fall, Spring.
- 352-4. *Radio-TV Laws and Policies*. Legal aspects of broadcasting in the

- United States. International agreements. Industry and network codes. Precedent legal cases. Actions by the Federal Communications Commission. Winter.
- 354-4. *Radio and TV Program Planning*. Preparation of station program schedules. Planning and organization of various types of local programs within limitations of program budgets and local situations. Program doctoring. Time buying. Development of new programs through the planning stage. Spring.
- 358(311)-4. *Advanced Radio Writing*. Writing of varied long program forms, except documentary and dramatic. Recording of class scripts and analysis. Fall.
- 359-4. *Basic TV Writing*. Writing short continuity forms for TV. The analysis of TV script requirements in comparison with those of radio programs. Supervised practice in the writing of TV scripts. Prereq, 256. Spring.
- 365-4. *Radio Acting*. Creating the radio character with voice alone. Study of various scripts. Participation in dramatic-documentary productions. Recording and analysis. Winter.
- 366(316)-4. *Advanced Radio Production*. Production techniques of varying types of radio programs. Script analysis for production. Each student produces several programs during the quarter. Spring.
- 367-3. *Radio-TV Production Survey*. The production of all types of radio and television programs, principally on commercial stations, by individuals, organizations, and institutions not professionally in the broadcasting industry. Not open to radio majors. Fall.
- 368-3. *Fundamentals of TV Production*. The basic techniques and equipment used in the production of the television program. Analysis of programs. The production department. Several trips to local TV stations. Winter.
- 372-3. *Religious Radio Program Production*. The creation and production of all types of religious programs. Analysis of programs on the air. Production and recording of several programs. Guest lecturers and consultants. Fall.
- 373-1 to 5. *Practical Radio-TV Problems*. Projects in the many phases of station operation. Actual on-the-air productions from the University studios. Required of majors for six quarters. Each quarter.
- 375-1 to 4. *Problems in Radio-TV Programming-Management*. Attention in different academic quarters to such topics as: public service programming, public relations and promotion, station office and department procedures. Visiting lecturers from the Radio-TV industry. Each quarter.
- 375a-1. *Minor Problems*.
- 375b-1. *Minor Problems*.
- 390-4. *Radio Station Management*. Objectives and procedures in radio station management. Differing station policies. Lectures and discussions by representatives of station management. Fall.
- 391-4. *Documentary and Dramatic Radio Writing*. Creating the dramatic and documentary programs. Research methods. Various writing techniques for these forms. Writing of several programs. Winter.

- 392-3. *TV Programs and Audiences*. The television program: its structure, appeals. The visual element. TV audiences and their characteristics and program preferences. Levels of attention to TV programs. Audience analysis techniques. Analysis of TV programs. Prereq, 351. Winter.
- 393-4. *Radio-TV and Society*. Radio and television as mass communications media throughout the world. The interrelation of radio and television with social habit patterns, with economic and political systems. Case studies. Spring.
- 394-3. *TV Station Management*. Objectives and procedures in TV station management. Differing station policies. Lectures and discussions with representatives of station management. Spring.
- 396-3. *Advanced TV Writing*. Writing of longer types of TV programs with particular emphasis on documentary and dramatic programs. Prereq, 359. Fall.

SPEECH CORRECTION, PATHOLOGY, AND AUDIOLOGY COURSES

- 104-4. *Training the Speaking Voice*. (See General Speech for description.)
- 108-4. *Speech for the Foreign Born*. (See General Speech for description.)
- 200-4. *Phonetics*. Instruction in the use of phonetic symbols to record the speech sounds of Midland American English, with emphasis on ear training, and a description of place and manner of productions of these sounds. Fall.
- 203-4. *Introduction to Speech Science*. An introduction to the science of general speech including the history of research in the field and significant experimental trends in the future. Open to all students. Fall.
- 212-4. *Speech Correction I*. Designed to acquaint the student with articulatory speech defects. Diagnostic and therapeutic techniques stressed. Winter.
- 318-4. *Speech Correction II*. Voice disorders including cleft palate. Prereq, 212. May be taken concurrently. Winter.
- 319-4. *Speech Correction III*. Deals with diagnostic and therapeutic techniques for the understanding and treatment of stuttering. Prereq, 212. Spring.
- 405-4. *Speech Correction IV*. Clinical and school procedures in speech correction. One hour of class per week, plus 6 hrs. of clinical work. Can be repeated. Prereq, permission of instructor. Fall, Winter, Spring.
- 406-4. *Techniques and Interpretation of Hearing Tests*. Principles and techniques of testing the hearing and interpreting those tests in terms of the individual's needs. Fall.
- 409-4. *Research Techniques in Speech Science*. A presentation of the research techniques used in speech science with particular emphasis on equipment, experimental design, and study of significant research contributions to the field. Open to advanced students in speech or consent of the instructor. Spring.
- 412-4. *Cerebral Palsy and Aphasia*. An investigation of the etiology, problems, and therapy of cerebral palsy and aphasia. Spring.

- 414-4. *Anatomy and Physiology of Speech and Hearing Mechanism*. A study of the anatomy and physiology of speech and hearing mechanisms. (Same as Physiology 414.) Winter, Summer.
- 416-4. *Hearing*. A course designed to acquaint the student with the theories and facts concerned with the functions of the hearing mechanisms. Winter.
- 419-4. *Communication Problems of the Deaf and Hard of Hearing*. A study of the objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. (Same as Guidance and Special Education 419.) Winter.
- 420-4. *Advanced Clinical Audiometry*. Principles and procedures for advanced audiometric testing. Prereq, 406. Spring.
- 428-4. *Speech Correction for the Classroom Teacher*. Etiology and therapy for common speech defects. Open to in-service teachers, seniors, and graduate students in education. Spring.
- 429-4. *Speech Correction for Allied Professions*. A study of the etiology and resources available for the speech and hearing defective. Course designed for majors in counseling. Prereq, consent of instructor. Winter.

SPEECH EDUCATION COURSES

- 306-4. *Teaching Speech in Secondary Schools*. Philosophy of speech education in the secondary school, and effective teaching of speech through curricular and extra-curricular work. Required of majors and minors working for a secondary education degree in the College of Education. Prereq, 16 hours of speech. Fall.
- 310-4. *Children's Theater*. (See Theater for description.)
- 340-4. *Teaching Speech in Elementary Schools*. Role of speech training in the elementary school; speech needs of children; methods of teaching speaking and listening activities in the elementary school. Prereq, 101. Winter.
- 402-4. *Directing*. (See Theater for description.)
- 410-4. *Creative Dramatics*. (See Theater for description.)
- 427-4. *School and College Forensic Programs*. Coaching and organizational methods for extra-curricular and curricular forensic programs. Winter.
- 428-4. *Speech Correction for the Classroom Teacher*. Etiology and therapy for common speech defects. In-service teachers, seniors, and graduate students in education. Spring.

COLLEGE OF EDUCATION

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN JOHN E. GRINNELL, PH.D. (STANFORD)	1955
ASSISTANT DEAN ROSWELL D. MERRICK, ED.D. (BOSTON)	1953
CHIEF ACADEMIC ADVISER WILLIS E. MALONE, PH.D. (OHIO STATE)	1939
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. McGRATH, PH.D (IOWA)	1949

The College of Education is for men and women who are already members of the teaching profession, and for young people who intend to enter the field of teaching or of educational administration, or some related field. Its aim is to provide a fully-rounded program of pre-service and in-service instruction and study. Its undergraduate and graduate curricula are intended to prepare students for teaching in the rural and elementary fields, high school, and college, and for holding positions as school administrators, supervisors, and supervising teachers. Opportunity for in-service growth is provided on a graduate or an undergraduate basis and also on a credit or non-credit basis.

The course of study in the College of Education leads to the degree Bachelor of Science in Education or Bachelor of Music Education.

REQUIREMENTS FOR GRADUATION

All students in the College of Education must complete the general requirements listed on page 47 including American history and government. (In this University, this means History 201 or 202 and Government 101, 231, or 300.) No general requirement in foreign language applies to the College of Education. In certain departments, however, foreign language is required of majors in secondary education.

Majors and minors in the College of Education are as follows:

1. Kindergarten-Primary. With a Kindergarten-Primary major the student also must carry 24 quarter hours each in (1) the social studies, (2) the natural sciences, and (3) the language arts.
2. Elementary. Students preparing to teach in elementary schools are not expected to major in an academic department; the student's major is called elementary education. A student must have 36 quarter hours in education in addition to a minimum of 12 quarter hours in student teaching. He also must carry 24 hours each in (1) the social studies, (2) the natural sciences, and (3) the language arts.
3. Secondary. The student who is registered in the College of Education and preparing to teach may carry a major in any department of any

of the colleges or schools of the University, provided the department offers an undergraduate major. The major must be at least 48 quarter hours, with a minor of at least 24 quarter hours (the major and minor being in different fields); or the student may carry a major of 36 quarter hours with two approved minors of 24 hours each. It is the policy of the College of Education that the courses, sequences, and prerequisites within the major area shall be established by the department involved and that no changes, exemptions, or substitutions shall be allowed by the College of Education except upon the approval of the chairman of the major department. Additional elective hours in the major and minor fields are also encouraged. A "field major" may be carried in the social studies.

SUGGESTED CURRICULUM FOR A SOCIAL STUDIES FIELD MAJOR

General degree requirements: See page 47.

College degree requirements: See page 103.

Required courses: 72 quarter hours in the social studies, to be divided as follows: 12 in European history; 12 in American history; and, 12 each in economics, social geography, government, and sociology. Within these subject areas the following courses are required: Econ. 205, 355; Geog. 100, 324; Govt. 101; Hist. 201, 202, 101, 102, 103; Soc. 101, 202.

Recommended electives: Econ. 206, 310, 317; Geog. 210, 314, 315, 319, 345; Govt. 231, 232, 466; Hist., any courses provided some are in American and some in European; Soc. 310, 355. (Students must be certain that the required courses plus recommended electives result in the completing of 12 hours in each of the subject areas listed under required courses above.)

The major is to be supplemented with a minor in a subject outside the field of the social studies.

DEGREE REQUIREMENTS IN THE COLLEGE OF EDUCATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION

KINDERGARTEN-PRIMARY EDUCATION

State Minimum Requirement (Statutes or Certifying Board Regulations)		Southern Illinois University Requirements Based Upon, or in Addition to, State Minimum Requirements*
	<i>Qr. Hrs.</i>	
Ed. Psy., Child Psy., Human Growth and Develop.	3	Psych. 301 Mental Hyg. or Health Ed. 312 or Sociology 381.
Education Courses (including Am. Public Educ.)	13.5	Educ. 100 or 331; 309; 313; 316; 317; 337; Guid. & Sp. Ed. 422

*Additional Regulations:

The student must have 64 hours of senior college credit (300 and 400 courses) of which at least 48 must have been earned at Southern Illinois University.

The student, to graduate, must have a "C" average in his major field and a "C" average in his total college work, with "C" or better in at least three-fourths of his work.

The student is held responsible for all requirements pertaining to prerequisites

	<i>Qr. Hrs.</i>	
Student Teaching	7.5	Student Teaching 16 hours (To be done on both Kdgn. and Prim. Levels)
Language Arts (including Speech)	21	Eng. 101, 102, 103, and 391; plus 6 hours selected from Eng. 205, 206, 209, 211, 212; plus Speech 101 and either Speech 212 or 428.
Science and Mathematics	12	Bot. 131; Chem. 101 or Physics 101; Math 106 and 210.
Social Science (must include Am. Govt. and Am. Hist.)	18	Hist. 201 or 202, and 308; Govt. 101, 231 or 300; Geog. 100; Soc. 101 and 375.
Fine and Applied Arts	12	Art 120 or Music 100; Art 300 or Ind. Ed. 303; Music 170*, 171*, 172*, and 300.
Health and Physical Education (must include 3 hrs. materials and methods)	7.5	Health Ed. 100, and 350 P.E. 101, 102, 103, and 318; plus 3 hrs. elective in P.E. Business Administration 113** Psychology 201
Total number of hours required for certification	180	Plus sufficient electives to make a total of 192 hours for degree.

ELEMENTARY EDUCATION

State Minimum Requirement
(Statutes or Certificating
Board Regulations)

Southern Illinois University Requirements Based Upon, or in Addition to, State Minimum Requirements***

	<i>Qr. Hrs.</i>	
General Psychology	4.5	Psychology 201
Ed. Psy., Child Psy., Human Growth and Develop.	3	Guid. & Sp. Ed. 305 or Child Psychology
Methods and Curriculum (Elem.)	3	Ed. 314

to Student Teaching and should study the section in this bulletin which lists such requirements.

The student who wishes to secure a limited state Kindergarten-Primary certificate by examination after two years should consult his adviser concerning minimum requirements.

*Three-hour requirement in Music 170, 171, and 172 may be waived by the student's passing a performance test satisfactorily.

**Unless a student can pass a minimum speed test of 25 net words per minute, he will be required to take Business Administration 102 as a prerequisite to Business Administration 113.

***Additional Regulations:

The student must have 64 hours of senior-college credit (300 and 400 courses), of which at least 48 must have been earned at Southern Illinois University.

The student is held responsible for all requirements pertaining to prerequisites

	<i>Qr. Hrs.</i>	
Reading in the Elem. School	4	Ed. 337
Philos. of Education	3	Ed. 355
Student Teaching (Elem.)	7.5	Student Teaching, 12 hrs. (8 must be Elementary)
American Public Educ.	3	Ed. 331 or 100; 12 hrs. elective in education
Language Arts	24*	Eng. 101, 102, 103, and 300 or 391; plus 6 hours selected from Eng. 205, 206, 209, 211, 212; plus Speech; plus hours to equal 24.
Natural Science	24**	5 hrs. selected from Bot. 101, 131, 202, or Zoo. 100, 105; plus 4 hrs. chem. or physics; plus 15 hrs. elective in natural sciences
Mathematics	7.5	8 hrs. math. (4 hrs. must be in methods)
Social Science (must include Am. Hist. and/or Am. Govt.)	24	Hist. 201 or 202; Govt. 101, 231, or 300; plus 5 hrs. in social geog.; plus 5 hrs. in econ. or sociol.
Fine and Applied Arts	18	Art 120 or Mus. 100; plus 15 hrs. elective in this field.
Health and Physical Ed. (must include 3 hrs. materials and methods)	7.5	Health Ed. 100, plus 6 hrs in physical education; plus 3 hrs. materials and methods of teaching physical education
Total number of hours required for certification		Total number of hours for degree: 192, with at least 24 hrs. in each of these fields: social studies, natural science, and language arts

to student teaching and should study the section in this bulletin which lists such requirements.

The student, to graduate, must have a "C" average in his major field (Elementary Education) and a "C" average in his total college work, with "C" or better in at least three-fourths of his work.

The student must have at least 24 quarter hours in each of these three fields: language arts, natural science, social studies.

Students who wish to major in special education must meet certification requirements for elementary education.

*Under Language Arts, reading, oral and written expression, grammar, spelling, hand-writing, literature for children, and other literature as is commonly found in the courses of study in the elementary schools will be accepted. See page 110, points 8 and 9.

**Under Natural Science, courses in mathematics (excluding arithmetic), botany, zoology, chemistry, physics, geology, geography, biology, general science, and physiology, or their equivalents in integrated courses, will be accepted. (It is recommended that at least one laboratory course be included.)

SECONDARY EDUCATION

State Minimum Requirement (Statutes or Certifying Board Regulations)		Southern Illinois University Require- ments, Based Upon or in Addition to, State Minimum Requirements*
	<i>Qr. Hrs.</i>	
Oral and Written Expression	12	Eng. 101, 102, 103, plus 300 or 391, and Speech**, plus 6 hrs. selected from Eng. 205, 206, 209, 211, 212
Natural Science	9	5 hrs. selected from Bot. 101, 202, or Zoo. 100, 105; plus 12 hrs. selected from two of these three fields: Physics, Math., Chem.
Social Science	9	10 hrs. selected from two of these three fields: Geog., Econ., Sociology
American History		History 201 or 202
American Government		Govt. 101, 231, or 300
Humanities	9	Art 120 or Mus. 100; plus Eng. listed above.
Health and Physical Education	4.5	Health Ed. 100; plus 6 hrs. of Phys.Ed.
Additional work in above fields	9	9 hours selected from academic fields. In addition to foregoing academic requirements, student must take 3 hrs. in Ag., Business, Home Ec., or Ind. Ed., unless these were taken in high school
Adolescent Growth or Educ. Psy.	3	Psych. 201
Principles or Philos. of Ed.	3	Ed. 355
Materials and Methods (Secondary)	3	Ed. 315
American Public Education	3	Ed. 331 or 100
Practice Teaching (Secondary)	7.5	12 hrs. Student Teaching (Secondary)

*Additional Regulations:

The student must have 64 hours of senior-college credit (300 and 400 courses), of which at least 48 must have been earned at Southern.

The student is held responsible for all requirements pertaining to prerequisites to Student Teaching and should study the section in this bulletin which lists such requirements.

The student, to graduate, must have a "C" average in his major field and a "C" average in his total college work, "C" or better in at least three-fourths of his work.

**See page 110, points 8 and 9.

Qr. Hrs.

Electives in Professional Ed. to bring total in Ed. to	24	Guid. & Sp. Ed. 305 or Adolescent Psychology	
Total Hours for Certification	180	Total hours for degree:	192
Student must have one major and one minor in separate fields, or must have three minors.		Major of 48 hrs. and minor of 24 hrs.; or a major of 36 hrs. and two minors of 24 hrs., one of which must be different from the major field.	
		Reading of a foreign language is required unless the student's major is in Agric., Art, Bus. Adm., Econ., Govt., Guid. and Special Ed., Health Ed., Home Ec., Ind. Ed., Journ., Music, P.E. for Men, Physics, Sociology, Speech, or Social Studies (field major).	

CERTIFICATION

All certificates to teach in Illinois are issued by the Secretary of the State Teacher Certification Board, Springfield, Illinois. The College of Education designs its curricula to meet the state certification requirements.

Information may be obtained from the Dean of the College of Education, or the Director of Teacher Training, Southern Illinois University; the County Superintendent of Schools; or the Secretary of the State Teacher Certification Board.

The State of Illinois now requires any person who has been issued a limited certificate dated July 1, 1953, or subsequent thereto, to pass an examination to the satisfaction of the certifying authority upon the provisions and principles of the Constitution of the United States and of the State of Illinois before such certificate shall be renewed. Students who have passed any of the following courses since the Fall Quarter, 1953, have satisfied this requirement: Govt. 101, 300; Hist. 201, 330. The University also offers an examination once each quarter and each summer session for students who need to meet this requirement by examination.

EDUCATIONAL RESEARCH SERVICES

DIRECTOR JACOB O. BACH, PH.D. (WISCONSIN)

1951

As a direct outgrowth of a recommendation made by school administrators, the College of Education has established the Educational Research Services for the purpose of working with schools in matters of district reorganization, plant construction, curriculum, and other problems through the organized approach of school surveys or by consultative services. Arrangements are made for services to be rendered on a daily-fee or on a contractual basis. No charge is made for the initial visit to a school. Inquiries should be addressed to the Director.

STUDENT TEACHING AND OBSERVATION

DIRECTOR CHARLES D. NEAL, ED.D. (INDIANA)	1948
ASSISTANT DIRECTOR JO ANN H. BOYDSTON, PH.D. (COLUMBIA)	1955-56
INSTRUCTOR DAN COX, M.S. IN ED. (SOUTHERN ILLINOIS)	1955

Supervised student teaching is conducted at Southern Illinois University in the University School and in co-operating public schools, both in and near Carbondale. The College of Education requires from 12 to 16 quarter hours of student teaching for the degree Bachelor of Science in Education. Students are expected to enroll for the entire 12 or 16 quarter hours during one quarter. In the event other arrangements are desired, the approval of the Director of Teacher Training must be obtained.

One of the three following plans of student teaching must be pursued by the student and approved by the Director of Teacher Training:

Plan A, 4-12 quarter hours.—Student teaching is provided for students of demonstrated fitness and ability. Experiences are provided for actual classroom teaching and other activities associated with the work of the teacher on the elementary or secondary level, or on both levels if approved by the Director of Teacher Training. Conference hours and hours for teaching will be arranged. Secondary student teachers are assigned to teach eight quarter hours in their major fields and four quarter hours in their minor fields (or four quarter hours on the elementary level). Elementary student teachers are assigned to one grade for one quarter. Kindergarten-Primary Education majors are required to take 16 quarter hours of student teaching.

Plan B, 16 quarter hours.—A comprehensive course in student teaching is provided involving all the experiences of a regular teacher on the elementary or secondary level, or both levels if approved by the Director of Teacher Training. This course is open only to students of demonstrated fitness and ability. A student registering for student teaching in this course will plan his schedule to leave the entire school day free during the term. Conference hours and hours for teaching will be arranged. Students accepted under this plan are not permitted to carry additional college courses.

Plan C, 12-16 quarter hours.—This course is especially designed for the student not enrolled in the College of Education but interested in qualifying for the teaching profession. The student is permitted to register for not less than 12 nor more than 16 quarter hours of student teaching on the elementary or secondary level, or on both levels if approved by the Director of Teacher Training. Conference hours and hours for teaching will be arranged. Students are admitted to this course only upon the recommendation of the Director of Teacher Training and the approval of a committee appointed for this purpose.

Since student teaching is designed in terms of the needs of teachers for complete and integrated experience, and since more than one supervisor may be in charge of the work done by the student teacher, no part of the work may be dropped by the student teacher with the expectation of continuing the remainder of the work for credit. Furthermore, if one supervisor finds it necessary to drop a student teacher from a part of the program, the College of Education reserves the right to require such student

teacher to drop all of his program of assigned student teaching rather than merely a part of it.

Two applications are necessary for student teaching. The preliminary or first application must be made during the spring quarter, approximately one year prior to graduation. For example, a student contemplating student teaching either the fall, winter, or spring term of the school year (1957-1958) should file a preliminary application during the spring term of the school year 1956-1957. Student teachers are scheduled for either fall, winter, or spring term of the following year on the basis of information given on the preliminary application. Applicants should check with the Director of Teacher Training for term assignment prior to the end of the term in which preliminary application is made. A final or detailed application blank must be filled in one quarter prior to the term the student is scheduled for student teaching. For example, a student scheduled to do student teaching during the winter term should file his final application at the beginning (first 2 weeks) of the preceding fall term.

Application for student teaching by in-service teachers for the summer sessions should be made not later than March 1. Application blanks may be secured from the Office of the Director of Teacher Training.

STUDENT TEACHING PREREQUISITES

1. Application must be made to the Director of Teacher Training one year prior to graduation.
2. Detailed form must be filled in a full quarter prior to teaching.
3. The student must pass satisfactorily a physical examination.
4. The student must be working toward the Bachelor of Science in Education or the Bachelor of Music Education degree. (Exceptions are made only by the Dean of the College of Education.)
5. Before beginning work in student teaching, the student must have 128 quarter hours' credit, with a "C" average.
6. The student in secondary education must have at least 16 quarter hours in the subject which he proposes to teach.
7. Students must have at least 12 quarter hours of professional education prior to student teaching. Secondary majors must have had General Psychology, Educational or Adolescent Psychology, and Education 315. Elementary majors must have had General Psychology, Educational or Child Psychology, and Education 314 and 337. Kindergarten-primary majors must have had General Psychology, Educational or Child Psychology, and Education 316 and 337.
8. The student must have completed Speech 101 and received a grade of "C" or better and a favorable recommendation from the department.
9. The student majoring or minoring in English must have completed English 300, earned a grade of "C" or better, and received a favorable recommendation from the department. The student majoring or minoring in other fields must have taken English 391, earned a grade of "C" or better, and received a favorable recommendation from the department.

UNIVERSITY SCHOOL

PRINCIPAL JOHN D. MEES, ED.D. (INDIANA)	1946
ASSOCIATE PROFESSOR CLYDE M. BROWN, ED.D. (MISSOURI)	1951
ASSOCIATE PROFESSOR WILLIAM E. BUYS, PH.D. (WISCONSIN)	1955
ASSOCIATE PROFESSOR CHALMER A. GROSS, PH.D. (CHICAGO)	1946
ASSOCIATE PROFESSOR SINA M. MOTT, PH.D. (NEW YORK)	1936
ASSOCIATE PROFESSOR CHARLES B. WILLARD, PH.D. (BROWN)	1949
ASSISTANT PROFESSOR E. LOUISE BACH, A.M. (ILLINOIS)	1934
ASSISTANT PROFESSOR MABEL S. BARTLETT, ED.D. (WASHINGTON UNIVERSITY)	1943
ASSISANT PROFESSOR TROY W. EDWARDS, ED.D. (INDIANA), ASSISTANT PRINCIPAL	1947
ASSISTANT PROFESSOR M. ALBERTA GIBBONS, A.M. (COLUMBIA), EMERITA (1955)	1921-1923; 1928
ASSISANT PROFESSOR TINA GOODWIN, M.A. (COLUMBIA)	1947
ASSISTANT PROFESSOR BERNIECE B. HANDLEY, ED.D. (MISSOURI)	1955
ASSISTANT PROFESSOR ELIZABETH C. MEEHAN, A.M. (ILLINOIS)	1941
ASSISTANT PROFESSOR CHARLES PATERSON, B.ED. (SOUTHERN ILLINOIS)	1936
ASSISTANT PROFESSOR EVELYN DAVIS RIEKE, M.ED. (ILLINOIS)	1937
ASSISTANT PROFESSOR ORA D. ROGERS, A.M. (ILLINOIS), EMERITA (1954)	1928
ASSISTANT PROFESSOR SHELBY S. SHAKE, M.S. (INDIANA)	1944
ASSISTANT PROFESSOR DWAIN E. SMALL, ED.D. (INDIANA)	1955
ASSISTANT PROFESSOR GLADYS LEAH SMITH, M.A. (COLUMBIA)	1931
ASSISANT PROFESSOR JOHN W. STOTLAR, PE.D. (INDIANA)	1948
ASSISTANT PROFESSOR HARLEY R. TEEL, A.M. (ILLINOIS)	1935
ASSISTANT PROFESSOR FLORENCE A. WELLS, A.M. (ILLINOIS), EMERITA (1946)	1927
INSTRUCTOR EDWARD L. BENCINI, M.ED. (MISSOURI)	1955
INSTRUCTOR THOMAS W. FLOYD, M.S. IN ED. (SOUTHERN ILLINOIS)	1955
INSTRUCTOR MARY ING FRANCIS, M.S. IN ED. (SOUTHERN ILLINOIS)	1955
INSTRUCTOR FLORENCE R. KING, EMERITA (1936)	1911
INSTRUCTOR JOYCE L. KONZELMAN, M.S. (WISCONSIN)	1955
INSTRUCTOR GORDON D. MOCK, M.S. (ILLINOIS)	1955
INSTRUCTOR JOHN F. PLUMMER, JR., M.A. (BALL STATE TEACHERS COLLEGE)	1949
INSTRUCTOR NANCY L. ROOS, M.S. IN ED. (SOUTHERN ILLINOIS)	1954
INSTRUCTOR ANDREW L. SHOTICK, M.S. (ILLINOIS STATE NORMAL)	1954
INSTRUCTOR ARTHUR EDWARD SMITH, M.S. IN ED. (ILLINOIS STATE NORMAL)	1955
INSTRUCTOR ZITA H. SPRADLING, M.S. (ILLINOIS)	1944
INSTRUCTOR MILTON F. SULLIVAN, M.A. (COLUMBIA)	1952
INSTRUCTOR CHARLES THATE, M.S. IN ED. (SOUTHERN ILLINOIS)	1954
INSTRUCTOR MADELYN TREECE, A.M. (CHICAGO)	1937-1938; 1940
INSTRUCTOR EUGENE S. WOOD, M.S. (ILLINOIS)	1949
INSTRUCTOR EUGENE D. WYLLIE, M.B.A. (INDIANA)	1954
LECTURER EDRA T. BRICKER, B.S. IN ED. (SOUTHERN ILLINOIS)	1955-56
ASSISTANT INSTRUCTOR EDNA M. STIEF, B.S. IN ED. (MISSOURI)	1954-56

The University School carries out the following functions:

1. Offers facilities for student teaching.
2. Provides a superior educational opportunity for the boys and girls enrolled.
3. Illustrates to prospective teachers, through demonstration teaching, a skillful application of educational principles.
4. Exemplifies to the public schools of Southern Illinois that which is best in school organization, curriculum, equipment, and methods of instruction.

In addition to a large number of subject-matter offerings, the University School has a well-rounded program of extra-class activities, which include band, chorus, dramatics, athletics (inter-scholastic and intramural), safety patrol, Future Farmers of America, Future Homemakers of America, Girls Athletic Association, student council, yearbook, variety of clubs, field trips, and excursions.

The fees are kindergarten \$13 per semester or \$26 per year; grades 1-12, \$9 per semester or \$18 per year. These fees entitle a student to textbooks, use of college library, subscription to a current-affairs weekly newspaper (Grades 7-12), yearbook (Grades 7-12), admission to University School athletic contests, Southern Illinois University football games, club dues, insurance, and University entertainment numbers.

The requirements for graduation from the secondary level are 16 units, including three of social studies, three of English, one of science, one of mathematics, and one of physical education.

STUDENT TEACHING IN PUBLIC SCHOOLS

In addition to the foregoing provisions for student teaching, arrangements are made with a number of public schools in and near Carbondale whereby student teachers may be assigned to do student teaching under the supervision of co-operating teachers approved by the University.

All assignments to student teaching are made by the Director of Teacher Training.

TEACHER, SUPERVISOR, OR ADMINISTRATOR INTERNSHIP PROGRAM ON THE GRADUATE LEVEL

The Southern Illinois University Graduate Level Teacher, Supervisor, or Administrator Internship Program is designed to meet the needs of those graduate students desiring to obtain practical experience in a public school while working on the master's degree in education. For information concerning this program, see page 292.

· EDUCATION

PROFESSOR RAYMOND H. DEY, ED.D. (WASHINGTON UNIVERSITY)	1946
PROFESSOR JOHN E. GRINNELL, PH.D. (STANFORD)	1955
PROFESSOR DOUGLAS E. LAWSON, PH.D. (CHICAGO)	1935
PROFESSOR JOHN D. MEES, ED.D. (INDIANA)	1946
PROFESSOR BRUCE W. MERWIN, PH.D. (KANSAS)	1927
PROFESSOR CHARLES D. NEAL, ED.D. (INDIANA)	1948
PROFESSOR TED R. RAGSDALE, PH.D. (ST. LOUIS)	1925

PROFESSOR VICTOR RANDOLPH, PH.D. (GEORGE PEABODY)	1935
PROFESSOR C. D. SAMFORD, PH.D. (NEW YORK)	1951
PROFESSOR F. G. WARREN, A.M. (CHICAGO), CHAIRMAN	1913
ASSOCIATE PROFESSOR JACOB O. BACH, PH.D. (WISCONSIN)	1951
ASSOCIATE PROFESSOR GEORGE BRACEWELL, ED.D. (WASHINGTON UNIVERSITY)	1931
ASSOCIATE PROFESSOR CLYDE MOSELY BROWN, ED.D. (MISSOURI)	1951
ASSOCIATE PROFESSOR ROYE BRYANT, ED.D. (WASHINGTON UNIVERSITY)	1948
ASSOCIATE PROFESSOR CLAUDE J. DYKHOUSE, PH.D. (MICHIGAN)	1947
ASSOCIATE PROFESSOR MARY EDWIN ENTSMINGER, M.A. (COLUMBIA)	1922
ASSOCIATE PROFESSOR WOODSON W. FISHBACK, PH.D. (CHICAGO)	1948
ASSOCIATE PROFESSOR R. JEAN FLIGOR, PH.D. (MICHIGAN STATE)	1941
ASSOCIATE PROFESSOR JAMES H. HALL, ED.D. (GEORGE WASHINGTON)	1952
ASSOCIATE PROFESSOR WILLIS E. MALONE, PH.D. (OHIO STATE)	1939
ASSOCIATE PROFESSOR HAROLD W. SEE, ED.D. (INDIANA)	1955
ASSISTANT PROFESSOR E. E. BROD, ED.D. (COLORADO STATE COLLEGE)	1951
ASSISTANT PROFESSOR WILLIAM E. SHELTON, PH.D. (CHICAGO)	1951
ASSISTANT PROFESSOR RUBY VAN TRUMP, A.M. (GEORGE PEABODY)	1928
VISITING PROFESSOR ARVIL S. BARR, PH.D. (WISCONSIN)	1957
LECTURER HARLAN D. BEEM, M.A. (ILLINOIS)	1956
LECTURER LUTHER E. BRADFIELD, ED.D. (INDIANA)	1955-56
LECTURER JAMES C. MESSERSMITH, M.A. IN ED. (GEORGE WASHINGTON)	1955-56
RESEARCH ASSISTANT JEAN THOMAS, B.A. (SAN FRANCISCO STATE)	1955-56

- 000-0. *Reading and Study Techniques*. A "service" course for students interested in improving reading and study skills. Study schedules, general principles of effective study, preparing for and taking examinations, how to improve reading ability, and how to make notes.
- 100-4. *Introduction to Education*. An orientation course to enable students to make intelligent decisions about teaching as a career.
- 309-4. *Kindergarten-Primary Social Studies Methods*. The objectives and methods of teaching social studies at the kindergarten-primary level. Prereq, Guid. 305.
- 313-4. *Children's Literature*. Courses for students majoring in kindergarten-primary education or elementary education, emphasizing types of literature, analysis of literary qualities, and the principles of selection and presentation of literature for children. Not open to students who have had English 213 or Speech 307. Prereq, Guid. 305.
- 314-4. *Elementary School Methods*. The fundamental principles of education and the interpretation of current and proposed educational theory and practice. The processes of teaching and learning involved in elementary education. Educ. 314 cannot be substituted for 315, nor Educ. 315 for 314. Prereq, Guid. 305.
- 315-4. *High School Methods*. The processes of learning and teaching involved in high school education. See Educ. 314 description. Prereq, 310 and 331 or 100, Guid. 305. Offered every term.

- 316-4. *Kindergarten-Primary Methods and Curriculum*. To aid the teacher in placing subject matter according to age levels and environment to integrate this material with the child's experiences, to plan a unit of experience, and to help a school group to develop it. Prereq, Guid. 305. (3 hours theory plus 2 hours laboratory.)
- 317-4. *Audio-Visual Methods in Education*. Selection and utilization of audio-visual methods in the teaching situation, elementary through adult levels. Motion pictures, slides, film strips, and recordings particularly stressed. Prereq, Guid. 305.
- 318-4. *Problems in Audio-Visual Education*. Provides opportunities for teachers and administrators to concentrate on the particular areas of the audio-visual field in which they are interested. Prereq, Educ. 317, or consent of instructor.
- 331-4. *American Public Education*. A general overview of the entire field of American public education. Prereq, Guid. 305. Offered every term. Not open to students who have had Educ. 330.
- 337-4. *Reading in the Elementary Schools*. The principles of reading instruction and the factors that condition reading, together with grade placement of aims and materials; approved techniques of approach, diagnostic and remedial treatment. Prereq, 314 or 315; Guid. 305.
- 350B, 350C-16. *Kindergarten-Primary Student Teaching*. (See page 110.)
- 351A, 351B, 351C-4 to 16. *Elementary Student Teaching*. (See page 110.)
- 352A, 352B, 352C-4 to 16. *Secondary Student Teaching*. (See page 110.)
- 355-4. *Philosophy of Education*. The philosophical principles of education and the educational theories and agencies involved in the work of the schools.
- 395-4. *Production of Audio-Visual Materials*. A course designed to provide basic techniques and preparation of effective audio-visual materials. Emphasis on materials for bulletin boards and opaque projection, models, lantern and 2x2 slides, film-strips, recordings, motion pictures, and the graphic arts. Prereq, Educ. 317, or the consent of the instructor.
- 401-2. *Problems in Public School Reading*. Requirements: attendance at all sessions of a reading conference; preparation of a paper showing practical applications of theory to the student's own teaching situation. Summer.
- 404-4. *Library Material for Adolescents*. Evaluation, selection, and use of books, magazines, recordings, films, and other materials suitable for the needs, interests, and abilities of young people 13 to 18 years old and for curriculum enrichment in secondary schools. Review of selected research in the field of young people's reading. Open to juniors, with consent of instructor.
- 405-4. *Library Materials for Children*. Evaluation, selection, and use of books, magazines, recordings, films, and other materials suitable for the needs, interests, and abilities of children and for curriculum enrichment in elementary schools. Review of selected research in the field of children's reading. Open to juniors, with consent of instructor.

- 412-4. *Illinois School Law*. Designed to provide (a) interpretation and understanding of Illinois school laws and (b) competency in fulfilling, administering, and evaluating provisions of the school laws of the State of Illinois. Includes study of Federal legislation and court decisions affecting Illinois public schools.
- 424-4. *School Administration*. For those who look forward to positions as supervisors, principals, or superintendents. Prereq, Guid. 305.
- 430-4. *History of Education*. To present the historical background of present-day education: to trace the evolution of educational ideals and practice in response to social needs and to the contributions of philosophic and scientific thought. Prereq, Guid. 305.
- 432-4. *Public Opinion, Propaganda, and Education*. Analyzing and classifying propaganda and giving means of combating it. Showing how public opinion is formed by use of current materials from the different channels of communication. The differences between propaganda and indoctrination.
- 433-4. *Workshop in Elementary Education*. Meets the immediate needs of in-service teachers in special areas such as curriculum advancement, remedial teaching, child development. Credit not granted for 433 if student has had 333 or 390.
- 434-1 to 3. *Administrators' Workshop*. Special program for consideration of administrative problems pertinent to superintendents, high school principals, and elementary school principals of Southern Illinois. Workshop usually held during the week following close of the Winter Quarter. Credit to be arranged and allowed only one time.
- 435-4 to 8. *Workshop in Elementary School Foreign Language Instruction*. Designed to assist elementary school teachers in integrating foreign languages into their teaching program as well as to encourage high school teachers to introduce or supervise foreign languages at the elementary level. Prereq, basic language credit. To count as foreign language or education.
- 437-4. *Problems in Reading*. Practices and trends in the teaching of reading; materials of instruction in reading, particularly remedial materials; techniques and materials for prevention of reading difficulties; diagnosis and remediation of reading difficulties. Prereq, 337.
- 441-4. *Teaching Elementary Science*. A workshop course for teachers of elementary school science.
- 442-4. *Science for the Elementary Teacher*. Study of content and methods in elementary school science.
- 456-4. *School Supervision*. The function of the principal or supervisor in the improvement of instruction. Some activities, methods, and devices for improving the effectiveness of teaching. For present and prospective principals or supervisors who wish to familiarize themselves with accepted principles of supervision in elementary and secondary schools. Prereq, three courses in education.
- 460-4. *Curriculum*. Modern practices and procedures in curriculum development: principles and practice in evaluation and construction of

- curriculum areas, with attention to the professional, social, economic, and other major factors in curriculum planning. Not open to students having had 461 or 561.
- 461-4. *The Elementary School Curriculum*. A critical study of the reorganization, construction and administration of the elementary school curriculum study, basic issues in realizing a sound curriculum, and installation, adaptation, and administration of the revised curriculum. Not open to students having had 460 or 561.
- 463-4. *Workshop in School Public Relations*. To meet the needs of teachers, supervisors, and administrators in the area of public relations.
- 465-4. *Seminar in Psychology of Elementary School Subjects*. Psychological principles of learning applied to the mastery of materials used in elementary school subjects. Prereq, 314, Guid. 305, and senior standing.
- 470-4. *Extra-Class Activities*. Student expected to specialize in one extra-class activity in terms of his own interest and needs. Prereq, consent of instructor.
- 485-4 to 9. *Workshop in Educational Utilization of Community Resources*.
(See page 300 for Education courses on the 500 level.)

GUIDANCE AND SPECIAL EDUCATION

PROFESSOR WILLIAM N. PHELPS, ED.D. (COLORADO STATE COLLEGE)	1941
PROFESSOR W. A. THALMAN, PH.D. (CORNELL)	1929
ASSOCIATE PROFESSOR EUGENE D. FITZPATRICK, ED.D. (COLORADO STATE COLLEGE)	1950
ASSOCIATE PROFESSOR B. ELIZABETH MCKAY, PH.D. (SYRACUSE)	1952
ASSOCIATE PROFESSOR GUY A. RENZAGLIA, PH.D. (MINNESOTA)	1955
ASSOCIATE PROFESSOR MAUDE A. STEWART, ED.D. (SYRACUSE)	1949
ASSISTANT PROFESSOR PAUL T. CORRELL, ED.D. (MISSOURI)	1955
ASSISTANT PROFESSOR IVAN LEE RUSSELL, PH.D. (MICHIGAN)	1954
INSTRUCTOR HARVEY F. GARDNER, M.S. IN ED. (SOUTHERN ILLINOIS)	1955
VISITING PROFESSOR CHARLES EDWARD SKINNER, PH.D. (NEW YORK)	1956-57

The Department of Guidance and Special Education offers undergraduate majors in Special Education leading to certification as teachers of mentally retarded, partially sighted, hard of hearing, or orthopedic children.

The major in Guidance and Counseling is limited to the graduate level. Students who plan to take such a major at the graduate level should make every effort to take Psych. 303, Guid. 421 or 422, and Psych. 412 at the undergraduate level.

Students who are majoring in other areas of education may qualify for the above mentioned special certificate for teachers of exceptional children by taking approximately twenty-four quarter hours of special work. Usually these courses can be taken in place of regular electives, and can be obtained in the junior and senior years. This permits a student (by the time of graduation) to qualify for both his regular teaching certificate and the special certificate. Requirements are as follows:

SUGGESTED CURRICULA IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses for a major in Special Education with a specialization in Mentally Retarded: students in the elementary education area must take Psych. 301 or 303, 412; Guid. 410, 414, 421 or 422; 8 quarter hours of student teaching of the mentally handicapped in addition to 12 quarter hours of student teaching with normal children; Speech 428. Students on the secondary education level who wish to qualify for this certification must have the above courses and may need to take additional courses required in the elementary education program but which are not required on the secondary level. These additional courses will need to be worked out on an individual student basis with his adviser.

Required courses for a major in Special Education with a specialization in Partially Sighted: consult the Chairman of the Department.

Required courses for a major in Special Education with a specialization in Hard of Hearing: consult the Chairman of the Department.

Required courses for a major in Special Education with a specialization in Orthopedic: 36 hours from Psych. 301 or 303, 412; Guid. 410, 413, 414, 416, 417, 421 or 422, 426, 442; Educ. 437; I.Ed. 303; P.Ed. 351; Physiol. 209; Student Teaching.

Appropriate graduate courses may be substituted for the above when necessary or desirable.

- 305-4. *Educational Psychology*. A course primarily for teachers, designed to help them to develop an appreciation and understanding of behavior; intelligence and its measurement; the use of test results; principles of learning and their application to teaching; and individual differences. Prereq, Psych. 201. Offered every term.
- 406-4. *Techniques and Interpretation of Hearing Testing*. (See Speech 406.)
- 410-4. *Problems and Characteristics of the Mentally Retarded*. A study of the objectives, curriculum, methods, and materials of instruction for slow learners. Emphasis upon the principles of learning as they can be applied to this group. Observation. Prereq, 305 or Psych. 301 or 303.
- 411-4. *Education of the Partially Sighted and Blind*. A study of the objectives, curriculum, methods, and techniques of instruction of classes for the partially sighted. Special emphasis on sight conservation in the regular classroom, special equipment, and observation of sight-saving classes. Prereq, 305 or Psych. 301 or 303.
- 412-4. *Education of Gifted Children*.
- 414-4. *The Exceptional Child*. A study of physical, mental, emotional, and social traits of all types of exceptional children. Particular stress given to the effects of handicaps in learning situations. Attention given to methods of differentiation and to techniques employed for rehabilitation. Individual case studies used; observations and field trips. Prereq, 305 or Psych. 301 or 303.

- 415-4. *Education of the Deaf and Hard of Hearing*. An introduction to methods of teaching reading and developing language sense in the deaf and hard of hearing, with special emphasis upon the tactile, visual, and kinesthetic experiences; hearing aids and other special equipment presented in terms of their educational application. Observations. Prereq, 305 or Psych. 301 or 303, Speech 105 and 212 or its equivalent.
- 416-4. *Education of the Orthopedic Children*. A study of the objectives, curriculum, methods and techniques of instruction of classes for orthopedic children. Emphasis given to program organizations, special types of equipment, and observation of classes for the orthopedic. Prereq, same as for 410.
- 417-4. *The Atypical Child and Social Agencies*. A survey of social agencies contributing to the welfare and care of exceptional children. Emphasis given to services rendered and to methods of contact, cost, etc. Visitations made to agencies and institutions; specialists invited to appear before the class. Prereq, 305 or Psych. 301 or 303 and Soc. 101.
- 418-4 to 8. *Workshop in Special Education*. Workshop designed to promote better understanding of the psychological and educational problems of atypical children. Specialists used as consultants. Open to seniors and graduate students majoring in education, guidance, or special education. Prereq, 305 or Psych. 301 or 303.
- 419-4. *Communication Problems of the Deaf and Hard of Hearing*. A study of the objectives and techniques for visual speech reading of the hard of hearing. Emphasis given to foundation exercises and actual practice under direct supervision. Speech reading problems studied. Prereq, 305 or Psych. 301 or 303; Speech 105 and 212 or its equivalent.
- 420-4. *Educational Statistics*. A course emphasizing the statistical methods needed by teachers for classroom use, the reading of educational literature, and informal educational research. Includes methods of describing group performance, measures of relationship, normal probability, and an introduction to measures of reliability and tests of significance. Prereq, consent of instructor.
- 421-4. *Tests and Measurements in the Secondary School*. A study of various standard tests with emphasis on the administering, scoring, and interpreting of such tests as they are utilized in the high schools. The planning of testing programs for public schools; the preparation of an objective test by the student in the field in which he plans to teach. Prereq, 305 or equivalent.
- 422-4. *Tests and Measurements in the Elementary School*. The uses of objective measurements for diagnosis, appraisal, guidance of learning, and improvement of teaching. Special emphasis on the selection, administration, and interpretation of tests. Attention given to the construction of classroom tests by the teacher. Prereq, 305 or equivalent.
- 426-4. *Symposium on Procedures in Individual Guidance*. Weekly seminars to acquaint students with techniques in individual guidance; em-

phasizes diagnostic techniques as used in the case study approach. Each student to select one child to serve as his "subject." Prereq, 305 or Psych. 301 or 303, 421 or 422, at least one course in remedial reading, Soc. 101, Health Ed. 100.

- 428-4. *Speech Correction for the Classroom Teacher.* (See Speech 428.)
- 440-6. (2 hours each term). *Personnel Problems in University Residence Halls.* A basic laboratory and seminar approach to student problems in relationship to University housing, the educational contributions of such housing to the total University program, the purpose and influence of group discussion, counseling, supervised study, social activity, and recreation; the ways of understanding and giving assistance to the new student, and the methods of evaluating the total program. Prereq, general course in sociology and in psychology.
- 441-4. *Philosophy and Techniques of Student Personnel Work.*
- 442-4. *Basic Principles of Guidance.* A basic introductory course. A rapid survey of the organization and supervision of educational, social, and vocational guidance in public schools. A first course for counselors, advisers, deans, teachers, school administrators, and others interested in guidance. Prereq, 305 or equivalent.
- 475-4. *Implementation of Guidance Principles in the Public Schools.* Individual and group guidance techniques needed by teachers and administrators in the public schools. Lectures and discussions to cover methods which the participant selects and adapts for use with problems of his choosing. Individual conferences, weekly progress reports, and a complete case report required. Prereq, consent of instructor. Not open to students who have had 426, 526, or 542.
- 480-4. *Workshop in Counseling the Handicapped.* Primarily for persons employed in institutions for the handicapped or employed as welfare workers. Emphasis on understanding types of disabilities, needs, and rehabilitation of the handicapped. Practical approaches to counseling, maintenance of records, occupational information, and vocational guidance of disabled persons.

(See page 313 for Guidance courses on the 500 level.)

HEALTH EDUCATION

ASSOCIATE PROFESSOR DONALD BOYDSTON, ED.D. (COLUMBIA), CHAIRMAN	1955
ASSOCIATE PROFESSOR FLORENCE E. DENNY, M.A. (COLUMBIA)	1929
ASSOCIATE PROFESSOR JOHN R. LEFEVRE, ED.D. (COLUMBIA)	1955
ASSOCIATE PROFESSOR ROSWELL D. MERRICK, ED.D. (BOSTON)	1953
ASSISTANT PROFESSOR A. FRANK BRIDGES, D.H.S. (INDIANA)	1943
ASSISTANT PROFESSOR WILLIAM W. HEUSNER, JR., PH.D. (ILLINOIS)	1955
INSTRUCTOR FRANCES K. PHILLIPS, M.A. (COLUMBIA)	1944
LECTURER J. ROBERT BLACKBURN, D.ED. (BOSTON)	1955-56
LECTURER CHARLES E. RICHARDSON, M.P.H. (MICHIGAN)	1952-56
LECTURER ARTHUR SHEEDY, M.S. (ILLINOIS)	1955-56

The Department of Health Education offers courses leading to a Bachelor of Science in Education degree. A Health Education minor of 24 quarter hours and a Safety Education minor of 24 quarter hours are also offered in the Department.

A total of 48 quarter hours are required for the major in Health Education. Required courses for the major are listed below. In addition the major is urged to secure a total of 36 quarter hours of natural science, or to secure one minor in the biological sciences. Minors are suggested in the related areas of physical education, biological science, and home economics.

The following courses are required for the Health Education minor: 100, 205, 300, 311 or 312, 313 or 333, 350 or 460, 471. Additional courses may be taken in safety education, school health problems, public health, child growth and development, emotional health, and home nursing.

The following courses are required for the Safety Education minor: 313, 333; the remaining 16 hours may be elected from 300, 303, 323, 325, 443, Psych. 202, Ind. Educ. 365.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Health Education: 100, 205, 233, 300, 311, 313, 355, 350 or 460, 400, 471, 490.

000-0. *Driver Training.*

100(202)-4. *Healthful Living.* A survey course in personal and community health designed to meet the general health needs of college students. Objective of the course to present scientific information as a basis for helping the student develop wholesome health attitudes and practices to result in optimum personal and community health. Prerequisite for all 300 courses. Required for all freshman students.

203-3. *Health Problems of the Physically Handicapped.* To aid teachers in detecting deviations from the health norms in school children. Interpretation of the health examination, methods used in detecting physical defects, rehabilitation programs, and agencies whose help can be obtained in the care of the physically handicapped.

205(306)-4. *Introduction to Health Education.* Introduction to philosophy and history of health education. The function of the school, the health department, and voluntary agencies in a health education program. Examination of techniques in health education such as community organization, interpretations of vital statistics, and group dynamics.

233-2. *First Aid.* Red Cross First Aid course as a basis. Emphasis on standard techniques in emergency case. Standard ARC certificate upon completion.

300-3. *Communicable Disease.* A study of the communicable diseases with emphasis upon control and principles of prevention, and application of these principles to the individual and the community.

- 302-4. *Driver Education and Training*. To prepare the college student for teaching Driver Education and Training in the secondary school. Outlining different instruction plans; obtaining the car, insurance, road testing, psychophysical testing, and source materials. Driver Education and Training Certificates to be awarded class members satisfactorily completing the course. Prereq, Illinois Driver's License.
- 310-4. *Home Nursing*. Theory, practice, and demonstration concerning equipment, care of the patient, and sick room; maternal and child care; recognition of more common symptoms of disease; administration of simple treatments.
- 311-4. *Child Development*. Physical development of the child, beginning with the study of pregnancy, prenatal and postnatal care, and the physical development of the child from birth to puberty.
- 312-4. *Emotional Health*. Designed for prospective teachers and parents. Emotional health of the teacher and parent in terms of its influence upon the child in the classroom.
- 313-4. *Introduction to Safety Education*. Preparation for teaching safety education in the public schools. The need of educating for safety; safety as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes, responsibility for safety, teacher liability; research in the field.
- 323-4. *Methods and Materials in Safety Education*. To acquaint the student with the materials and methods in the teaching of Safety Education in the elementary and secondary school. To include classroom instruction, audio-visual aids, course of study planning, preparing teaching units, group discussions, and sources of materials.
- 325(225)-3. *Community Health Problems*. Methods of water purification; sewage disposal; diseases transmitted by contaminated food, water, and milk; restaurant sanitation and food handling.
- 333-2. *Advanced First Aid*. Treatment of advanced and instructor phase; Instructor ARC certificate upon completion. Prereq, 233.
- 350-4. *Methods and Materials in Elementary School Health Education*. To show the prospective teacher the fundamental processes involved in the teaching of health education at the elementary level.
- 355-4. *Introduction to Public Health*. An introduction to the federal, state, and local official public health agencies, and to voluntary public health agencies; their organization, administration, functions, and relationship to school and community health programs. Programs emphasized by visits to local and state public health agencies.
- 356-5. *Public Health II*. An examination of specific public health problems and measures of control.
- 365-4. *Problems of Health Education in the Public Schools*. A study of existing health education programs in the public schools, emphasized by observations of type programs in off-campus schools; investigations of recent developments in education and their influences upon school health education.

- 376-4. *Workshop in Health and Nutrition*. Investigation of food, nutrition, sanitation, and other health problems related to school lunchroom, camps, and other community quantity feeding programs. Offered in summer on demand.
- 400-4. *Health Appraisal of School Children*. The role of the teacher in the health appraisal of the school child, including school health examinations, use of health records, and emphasis on training for recognition of health deviations from normal, common among school children. Not open to students who have had H. Ed. 450.
- 405-3. *Methods and Materials in Family Life Education*. Designed to prepare the prospective teacher to instruct in various phases of family life education.
- 443-4. *Methods and Materials in Driver Education*. An advanced course in driver education including a study of existing courses of study, review of research, course of study planning, visitation and reporting, panel discussions, accident statistics, conducting the secondary school program, testing, and demonstration in the car. Prereq, 302.
- 450-4. *Health Education in the Elementary School*. Responsibilities of schools to instruct their students in basic fundamentals of how to live healthfully. Principles, methods, programs, and materials for the elementary teacher. Integrating health with other subjects, health observation of children, abnormalities, screening tests, and related materials. Not open to students who have had H. Ed. 400.
- 460-4. *Methods and Materials in Secondary School Health Education*. To show the prospective teacher the fundamental processes involved in the teaching of health education at the secondary level.
- 461(361)-4 to 8. *Workshop in Health Education*. Summer course for in-service teachers, administrators, advanced students, nurses, social workers, and others interested in public aspects of school and community living. Treatment of individual problems and classroom health as units in such fields as speech defects and their detection and correction, communicable disease control, nutrition, social and mental hygiene. Lectures, demonstrations, films, field trips, and individually supervised research in special problems. Prereq, 100 or its equivalent.
- 471-4. *Organization and Administration of School Health*. Appraisal of overall school organization for health education including health services and personnel, health and safety instruction, school environment, school health examinations, local, state, and federal resources for health, health councils, and interdepartmental relationships.
- 490-4 to 8. *Field Work in School and Community Health*. Field training, observation, and participation in current public and school health programs. Utilization of area schools and public health agencies to provide practical experiences for the health education student. Restricted to majors in Health Education.

(See page 318 for Health Education courses on the 500 level.)

LIBRARY SERVICE

ASSOCIATE PROFESSOR RALPH E. MCCOY, PH.D. (ILLINOIS), CHAIRMAN	1954
ASSISTANT PROFESSOR KATHLEEN G. FLETCHER, M.S. (ILLINOIS)	1955
ASSISTANT PROFESSOR DOROTHY AGNES MCGINNISS, M.S. IN L.S. (COLUMBIA)	1952

Courses in library service are designed to serve two purposes: (1) to provide instruction in the use of books and libraries for undergraduates to aid them in their college work; this instruction is offered through Courses 202 and 203; (2) to prepare teacher-librarians for elementary and secondary schools with a minor in library service.

Students wishing to become full-time librarians in larger secondary schools, colleges, universities, or public libraries are advised to acquaint themselves as early as possible with the admission and degree requirements of a graduate library school accredited by the American Library Association.

Persons trained primarily as teachers may qualify for part-time professional service in a school library by completing a minor of 24 quarter hours of work in library service and education. The Superintendent of Public Instruction of the State of Illinois recommends that all school librarians in the accredited public schools of Illinois complete 24 quarter hours of courses related to library service by September, 1957. The University of Illinois will accept the minor in fulfillment of the entrance requirements to the master's program in library science.

For the minor in library service the following courses must be taken: 202, 203, 303, 306, 307, 308; Educ. 404 or 405. It is suggested that 202 and 203 be taken first for general orientation. In addition, the following courses are suggested as electives for students interested in becoming teacher-librarians, although they will not be counted as part of the 24 hour minor requirement: Educ. 317, 313, 437, 460; Psych. 301, 303; Eng. 209, 212; Speech 103, 202.

- 202-2. *Use of Books and Libraries I.* Developing the student's skill in the use of the card catalog, library classifications, and other general keys to library materials. Study of general reference tools.
- 203-2. *Use of Books and Libraries II.* Developing the student's skill in the use of bibliographies and specialized reference tools in selected subject fields. Instruction in bibliographic style. Prereq, 202 or consent of instructor.
- 303-4. *School Library Functions and Management.* Effective library service in relation to the educational objectives of elementary and secondary school programs; organization, supervision, finance, housing, equipment, standards, and evaluation.
- 306-4. *School Libraries as Information Centers.* Evaluation, selection, and use of reference sources for elementary and secondary school libraries. Principles and methods of reference service.
- 307-4. *School Library Activities and Practice.* Supervised practice and observation integrated with instruction in typical activities of school librarians, including story telling, book talks and discussions, teaching the use of the library; experience in meeting re-

- current administrative problems of a library. Prereq, 303, 306, 308; Educ. 404 or 405.
- 308-4. *School Library Technical Processes*. Organization of library materials for effective service to readers. Acquisition, classification, cataloging, preparation, preservation, and circulation of materials. Laboratory assignments.
- Ed. 404-4. *Library Materials for Adolescents*. For description see under Department of Education.
- Ed. 405-4. *Library Materials for Children*. For description see under Department of Education.

PHYSICAL EDUCATION FOR MEN

ASSOCIATE PROFESSOR CARL E. ERICKSON, ED.D. (BOSTON)	1954
ASSOCIATE PROFESSOR JOHN R. LEFEVRE, ED.D. (COLUMBIA)	1955
ASSOCIATE PROFESSOR LELAND P. LINGLE, M.A. (IOWA)	1927
ASSOCIATE PROFESSOR GLENN MARTIN, M.A. (IOWA)	1938
ASSOCIATE PROFESSOR EDWARD J. SHEA, PH.D. (NEW YORK), CHAIRMAN	1954
ASSISTANT PROFESSOR CECIL C. FRANKLIN, JR., DIR. OF P.ED. (INDIANA)	1948
ASSISTANT PROFESSOR WILLIAM W. HEUSNER, JR., PH.D. (ILLINOIS)	1955
ASSISTANT PROFESSOR LYNN C. HOLDER, M.S. IN ED. (INDIANA)	1946
ASSISTANT PROFESSOR ALBERT P. KAWAL, M.ED. (BOSTON)	1955
INSTRUCTOR EDWARD L. BENCINI, M.ED. (MISSOURI)	1955
INSTRUCTOR ROBERT E. FRANZ, M.S. IN ED. (SOUTHERN ILLINOIS)	1953
INSTRUCTOR GORDON EVANS HERWIG, B.S. (BOWLING GREEN)	1956
INSTRUCTOR WILLIAM E. O'BRIEN, M.S. IN P.ED. (INDIANA)	1948
INSTRUCTOR JAMES J. WILKINSON, DIR. REC. (INDIANA)	1948-1950; 1951
LECTURER ALBERT V. HOLLISTER, M.A. (GEORGE PEABODY)	1954-56
LECTURER JACK D. JONES, B.S. (TEXAS)	1955-56
LECTURER CARMAN PICCONE, B.S. IN ED. (TEMPLE)	1955-56
ASSISTANT INSTRUCTOR THOMAS J. DECARLO, B.S. IN ED. (SPRINGFIELD)	1955-56

The department sponsors a fall program of intercollegiate football and cross country, a winter program of basketball, wrestling, and gymnastics, and a spring program of baseball, track, golf, and tennis. There is an intra-mural program which makes it possible for all students to enjoy taking part in some activity and to benefit from it.

The University is a member of the National Collegiate Athletic Association, the National Intercollegiate Association, and the Interstate Intercollegiate Athletic Conference.

COACHING STAFF

HEAD OF INTERCOLLEGIATE ATHLETICS CARL E. ERICKSON, ED.D. (BOSTON)	1954
HEAD BASEBALL COACH GLENN MARTIN, M.A. (IOWA)	1938
HEAD BASKETBALL AND GOLF COACH LYNN C. HOLDER, M.S. IN ED. (INDIANA)	1946
HEAD FOOTBALL COACH ALBERT P. KAWAL, M.ED. (BOSTON)	1955

HEAD SWIMMING COACH WILLIAM W. HEUSNER, JR., PH.D. (ILLINOIS)	1955
HEAD TENNIS COACH JOHN R. LEFEVRE, ED.D. (COLUMBIA)	1955
HEAD TRACK AND CROSS COUNTRY COACH LELAND P. LINGLE, M.A. (IOWA)	1927
HEAD WRESTLING COACH JAMES J. WILKINSON, DIR. REC. (INDIANA)	1948-50; 1951
ASSISTANT FOOTBALL COACH EDWARD L. BENCINI, M.ED. (MISSOURI)	1955
ASSISTANT FOOTBALL COACH ROBERT E. FRANZ, M.S. IN ED. (SOUTHERN ILLINOIS)	1953
ASSISTANT FOOTBALL COACH WILLIAM EDWARD O'BRIEN, M.S. IN P.ED. (INDIANA)	1948
ASSISTANT FOOTBALL COACH CARMEN PICCONE, B.S. IN ED. (TEMPLE)	1955-56
HEAD GYMNASIAC COACH THOMAS J. DECARLO, B.S. IN ED. (SPRINGFIELD)	1955-56
HEAD TRAINER JACK D. JONES, B.S. (TEXAS)	1955-56

Physical Education courses 151, 152, 153, 251, 252, and 253 are required of all freshmen and sophomores and are part of the general University requirements for graduation. All students must complete these courses for graduation or offer, in lieu thereof, three quarters of competition on a varsity athletic squad, each quarter in a different sport. Six hours of physical education activity is the maximum of credit which may be accepted toward graduation requirements.

Courses 149, 151, 152, 153, 249, 251, 252, 253, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179 do not count toward a major or minor. Courses 230 and 239, taught in the Department of Physical Education for Women, may be substituted for a similar period of 251, 252, 253.

Sixty quarter hours in the Department of Physical Education for Men (exclusive of the required freshman and sophomore physical education or equivalent) and approval of the chairman of the department are required for a major in Physical Education. Required courses in physical education for a major include 206, 210, 220, 221, 241, 256, 257, 272, 302, 303, 340, 353, 355, 370, 375, and 380, plus a minimum of six quarter hours of sports theory selected from 330, 356, 358, 372. Physiology 209 and 300 are required of all majors in physical education.

For a minor in physical education, thirty quarter hours are required, including 206, 210, 220, 221, 241, 256, 257, 272, 302, 340, 353, and 355.

All physical education majors and minors should demonstrate proficiency in water safety skills before being graduated.

Courses 245 and 319, taught in the Physical Education Department for Women, may be taken as electives on the major in Physical Education.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Physical Education for Men: 206, 241, 220, 221, 210, 256, 257, 272, 302, 303, 330, 356, 358, 372, 355, 370, 375, 340, 380, 353; Physiol. 209, 300.

Additional courses recommended for a major in Physical Education for Men: 202, 205, 240.

Recommended electives: 306, 307, 324; Physiol. 420; Psych. 303; Health Educ. 302, 333, 350, 351; Rec. 201, 202, 301, 311.

ACTIVITY COURSES

- 149-1. *Adapted and Restricted Activities*. Freshman requirement for students with functional or structural disorders. 3 hr. activity. Every term.
- 151-1. *Freshman Required Physical Education*. 3 hr. activity. Fall.
- 152-1. *Freshman Required Physical Education*. 3 hr. activity. Winter.
- 153-1. *Freshman Required Physical Education*. 3 hr. activity. Spring.
- 170-2. *Varsity Football*. 5 hr. activity. Fall.
- 171-2. *Varsity Basketball*. 5 hr. activity. Winter.
- 172-2. *Varsity Track*. 5 hr. activity. Spring.
- 173-2. *Varsity Tennis*. 5 hr. activity. Spring.
- 174-2. *Varsity Gymnastics*. 5 hr. activity. Winter.
- 175-2. *Varsity Baseball*. 5 hr. activity. Spring.
- 176-2. *Varsity Golf*. 5 hr. activity. Spring.
- 177-2. *Varsity Swimming*. 5 hr. activity. Winter.
- 178-2. *Varsity Cross County*. Fall.
- 179-2. *Varsity Wrestling*. 5 hr. activity. Winter.
- 249-1. *Adapted and Restricted Activities*. Sophomore requirement for students with functional or structural disorders. 2 hr. activity. Every term.
- 251-1. *Sophomore Required Physical Education*. Prereq, 151, 2 hr. activity. Fall.
- 252-1. *Sophomore Required Physical Education*. Prereq, 152. 2 hr. activity. Winter.
- 253-1. *Sophomore Required Physical Education*. Prereq, 153. 2 hr. activity. Spring.

PROFESSIONAL TEACHER-TRAINING COURSES

- 202-2. *Wrestling*. Course designed to give knowledge of rules, teaching methods and history of wrestling; and to give practical work in wrestling techniques. 1 hr. a day, 5 days a week. Fall.
- 204-1. *Elementary Swimming*.
- 205-1. *Advanced Swimming*. Further practice and study of all recognized strokes; development of speed, endurance, rhythm, and timing stressed. Prereq, passing of elementary swimming test.
- 206-2. *Stunts and Tumbling*. Course aimed principally to develop, by practice, individual techniques in calisthenics, tumbling, simple stunts, and trampoline work; also to develop in students safety, skills, and teaching techniques, and to give them a number of activities. 1 hr. a day, 4 days a week. Fall, Spring
- 207-2. *Apparatus*. Course aimed principally to develop in students individual techniques in calisthenics and in heavy apparatus; also, to develop in them safety skills and teaching techniques as well as to teach them a number of activities. 1 hr. a day, 4 days a week. Fall, Spring.

- 208-1. *American Square Dance and Mixers*. A course representing the square dances common in various geographical areas of the United States; additionally, many of the mixers and get-acquainted dances for starting parties.
- 210-2. *Basketball Techniques*. Course dealing with individual basketball fundamentals, with special emphasis on passing, pivoting, basket-shooting, dribbling, and individual defense. 1 hr. a day, 4 days a week. Spring.
- 220-2. *Recreational Activities and Games (outdoor)*. Techniques, skills, and rules taught by student participation in individual and group outdoor recreational sports. 4 days a week. Fall, Spring.
- 221-2. *Recreational Activities and Games (indoor)*. Techniques, skills, and rules taught by student participation in individual and group indoor recreational sports. 4 days a week. Fall, Spring.
- 224-1. *Tap Dancing*. Fundamentals and routines.
- 230-1. *Folk Dancing*. Fundamental steps and dances of various countries.
- 233-1. *Modern Dance*. Fundamentals of movement and composition. A basic course leading to the creating of contemporary dance composition.
- 239-1. *Social Dancing*. Fundamental steps of ballroom dancing. For beginners only.
- 240-1. *Golf Techniques*. A course dealing with golf fundamentals, such as the grip, stances, address, forward and backward swing, and follow-through. Individual instruction given as needed. Spring.
- 241-2. *Introduction to Physical Education*. A discussion of the purposes of physical education, the training required for teachers, the programs of physical education, vocational possibilities in the profession, the scientific foundation of physical education, and present trends in the field. 2 days a week. Fall, Spring.
- 254-1. *Bowling*. Fundamental techniques; rules and strategy.
- 256-2. *Track and Field Techniques*. Spring.
- 257-2. *Football Techniques*. Individual instruction and practice in all the fundamentals of the game, such as passing, kicking, tackling, blocking, running with the ball; student participation in actual scrimmage. 4 days a week. Fall.
- 272-2. *Baseball Techniques*. The technique of batting, fielding, and playing the different positions. 4 hr. activity. Spring.
- 302-4. *Materials and Methods for Teaching Physical Education Activities in Junior and Senior High Schools*. Study, demonstration, and practice of the "totalbody" activities adapted to the needs, interest, and capacities of junior and senior high school boys; emphasis placed upon principles of leadership in an organized schedule, or in outdoor and indoor developmental activities which necessitate a thorough knowledge of the purposes, aims, and remote and immediate objectives of physical education, and of the changing factors in the building of a school program. 1 hr. a day, 4 days a week. Fall, Winter.
- 303-5. *Kinesiology*. The mechanical analysis of physical education activities through the study of joint and muscle action. 1 hr. a day, 5

- days a week. Prerequisite, Physiology 300 (Human Anatomy). Winter, Spring.
- 306-2. *Advanced Stunts and Tumbling*. Continuation of Physical Education 206; in addition to practice and safety drills, emphasis upon teaching methods. 1 hr. a day, 4 days a week. Fall, Spring.
- 307-2. *Advanced Apparatus*. Continuation of Physical Education 207; in addition to practice and safety skill, more emphasis on teaching methods. 1 hr. a day, 4 days a week. Fall, Spring.
- 318-4. *Teaching of Physical Education for Kindergarten-Primary Children*. A study of physical activities that meet the needs of the kindergarten-primary child. Including movement fundamentals, games, rhythms, self-testing, and apparatus play, as well as creative activities. To fulfill the requirements of the State of Illinois for kindergarten-primary teachers.
- 319-4. *Teaching of Elementary School Group Activities*. Study of age characteristics; planning of an activity program for all grade levels; care of equipment; techniques of teaching activities for elementary grades. To fulfill the requirements of the State of Illinois for elementary school teachers.
- 324-2 to 4. *Basic Rhythms and Folk Dancing*.
- 330-3. *Basketball Theory*. Different types of offense and defense studied; special emphasis given to early season practice, offensive and defensive drills, team strategy, care of minor injuries, and rules of the game. Prereq, 210, or permission of the instructor. 1 hour a day, 3 days a week. Fall.
- 335-2. *Administration of Aquatics*.
- 340-4. *History and Principles of Physical Education*. A course aiming to develop an understanding of the scientific foundations of a sound program of physical education as implied by the accepted principles of psychology, physiology, sociology, biology, educational method, philosophy, anatomy, kinesiology, and related areas. Fall, Winter.
- 351-4. *Recreation and Physical Education for Atypical and Handicapped Individuals*. Techniques of physical examinations, postural defects and their correction; activities suitable for the atypical program building; correlation of this program with the physical education curriculum. 4 days a week. Winter.
- 353-4. *The Organization and Administration of Physical Education*. A course including the problems of the administrator, such as the grading, care and maintenance of playgrounds and gymnasiums, student leadership in physical education, purchase and care of equipment, organization and administration of an intramural program. 1 hour a day, 4 days a week. Fall, Winter.
- 355-2. *Assisting Techniques*. A course giving actual opportunities in assisting in teaching experience on the college level, with as varied a program of activities as the student schedule permits; the professional and required classes as well as the intramural program furnishing experiences in officiating and assisting in teaching activities according to season. Fall, Winter, Spring.
- 356-3. *Track and Field Theory*. Instruction in all individual track and field

- events; methods of organizing and conducting track and field meets as a part of the course. Winter.
- 358-3. *Football Theory*. A course dealing with all phases of the game: offensive and defensive formation analyzed; the strength and weakness of each studied; the various types of individual plays analyzed; rules of the game discussed. Prereq, 257, or permission of the instructor. 1 hour a day, 3 days a week. Spring.
- 370-4. *Tests and Measurements in Physical Education*. The theory of measurements in health and physical education, the selection and administration of appropriate tests, and the interpretation of results. Projects required. Winter, Spring.
- 372-3. *Baseball Theory*. Strategy of the game; conduct of daily practice; study of rules and play situations; also, methods of teaching baseball. Winter.
- 375-4. *Theory and Practice in the Training and Care of Athletes*. To explain the psychological and physiological principles of sound coaching methods, to provide actual practice in bandaging and strapping, and to discuss the care and conditioning of athletes for competition in sports. Prereq, junior standing. Fall, Spring.
- 380-4. *The Organization and Administration of Interscholastic Athletics*. To explain and discuss the handling of administrative details related to the purchase and care of equipment, sports awards and point systems, transportation of athletes, insurance and liability for accidents, financing, public relations, scheduling of games, and hiring of officials. Fall, Spring.
- 400-4. *Evaluation in Physical Education*. Historical background and measurement in physical education; selection and evaluation of contemporary testing devices; structure and use of tests; administering the testing program; and interpretation and application of results. Fulfills the tests and measurements course requirement for the degree Master of Science in Education.
- 402-3. *Organization and Administration of Intramural and Extramural Activities*. Planning extramural programs of sports; planning and co-ordinating extramural activities commonly associated with physical education.
- 403-4. *The Adaptation of Physical and Recreation Activities to the Handicapped Individual*. Recognition of postural deviations; devising and planning programs for the physical atypical.
- 404-4. *The Teaching of Sports*. Teaching methods, officiating, organization, safety precautions, and selecting equipment for sports.
- 405-4. *Current Theories and Practice in the Teaching of Dance*. History and evolution of dance; place of dance in education and recreation.
- 406-4. *Principles of Physical Education*. The place of physical education in the school program, and the principles underlying the program.
- 420-3. *Physiological Effects of Motor Activity*. A study of the general physiological effect of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system.

(See page 330 for Physical Education courses on the 500 level.)

PHYSICAL EDUCATION FOR WOMEN

PROFESSOR DOROTHY R. DAVIES, ED.D. (CINCINNATI), CHAIRMAN	1939
PROFESSOR HELEN ZIMMERMAN, PH.D. (WISCONSIN)	1952
ASSISTANT PROFESSOR LURA ELIZABETH EVANS, PH.D. (IOWA STATE)	1949
ASSISTANT PROFESSOR DOROTHY M. MUZZEY, M.A. (IOWA)	1928
INSTRUCTOR YVONNE G. DEMPSEY, M.S. (WISCONSIN)	1955
INSTRUCTOR SARAH JANE MALONE, M.ED. (NORTH CAROLINA)	1955
INSTRUCTOR JEAN STEHR, M.A. (TEXAS STATE COLLEGE FOR WOMEN)	1944
ASSISTANT INSTRUCTOR MARGARET CLEMENS	1953-56
ASSISTANT INSTRUCTOR CONNIE M. CONATSER	1956
LECTURER GLORIA ANN BONALI, B.S. IN ED. (SOUTHERN ILLINOIS)	1955-56

The Department of Physical Education for Women offers courses leading to the Bachelor of Science in Education Degree.

The courses presented for graduation must include the following:

1. Three courses selected from the following group: 100, 101, 101A, 102, 102A, 103, 103A, and 107.
2. Three courses selected from the following: 201A, 202A, 203A, 204, 205, 206, 207, 211, 212, 213, 214, 215, 216, 218, 222, 223, 224, 230, 233, 239, 254, and 255.

However, students majoring or minoring in physical education should take the following courses: 100, 101, 107, 216, 223, and 212, which correspond to the six activity hours required of all University students. In addition, they should demonstrate proficiency in water safety skills before being graduated.

Forty-six hours, in addition to the courses listed in the preceding paragraph, are required for a major in physical education. Thirty hours are required for a minor in physical education, in addition to the required six activity hours, a total of thirty-six hours.

A minor in this department must include the following: 355, 304, 305, 306, 307, 308, 309, 350, 353, and 354.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Physical Education for Women: 224, 233, 239, 355, 303, 304, 305, 306, 307, 308, 309, 350, 351, 352, 353, 354, 315, 373, 374.

Additional courses recommended for a major in Physical Education for Women: 204 or 205, 207, 215, 230, 254, 255, 311, 317, 348, 376; Health Educ. 333, 350, 351; Physiol. 209.

ACTIVITY COURSES

Students who are advised by the University Physician to restrict their activities should register in a course marked with an "A" or an asterisk.

All activity courses numbered 100 meet 3 days a week.

All activity courses number 200 meet 2 days a week.

Not more than one of these courses may be taken in any one term without special permission from the department.

- 000-0. *Posture*. A course designed to help students overcome postural deviations.
- 010-0. *No-Credit Swimming*.
- 100-1. *Swimming*. Beginning or Intermediate.
- 101-1. *Hockey, or Soccer, or Speedball*. Techniques, skills, and team tactics. For freshmen only.
- 101A-1. *Individual Physical Education*. A course for students who are physically unable to participate in the regular physical education activities. Horseshoes, croquet, badminton, shuffleboard.
- 102-1. *Basketball and Posture Correction*. Continuation of 101.
- 102A-1. *Individual Physical Education*. Continuation of 101A. Posture correction, table tennis, and bowling.
- 103-1. *Volleyball and Folk Dancing*. Continuation of 102.
- 103A-1. *Individual Physical Education*. Continuation of 102A. Folk dancing, deck tennis, paddle tennis, golf, croquet, and shuffleboard.
- 107-1. *Fundamental Rhythms*.
- 201A-1, 202A-1, 203A-1. *Adapted Physical Education*. Hours to be arranged by conference.
- 204*-1. *Beginning Swimming*. Strokes and safety devices for beginning swimmers.
- 205*-1. *Intermediate Swimming*. Intermediate and advanced techniques and strokes.
- 206-1. *Volleyball*. A course on advanced techniques and team tactics for the game of volleyball.
- 208-1. *American Square Dance and Mixers*. A course presenting the square dances common in various geographical areas of the United States; additionally, many of the mixers or get-acquainted dances for starting parties.
- 212-1. *Basketball*.
- 213-1. *Softball*.
- 214*-1. *Archery*.
- 215-1. *Badminton*.
- 216-1. *Tennis*.
- 218*-1. *Recreational Sports*. Badminton, duck pins, and other recreational sports.
- 222*-1. *Golf*. Strokes, rules and regulations of the game.
- 223-1. *Hockey*. Techniques and skills.
- 224-1. *Tap Dancing*. Fundamentals and routines.
- 228-1. *Diving*.
- 230*-1. *Folk Dancing*. Fundamental steps and dances of various countries.
- 233-1. *Modern Dance*. Fundamentals of movement and composition. A basic course leading to the creating of contemporary dance compositions.
- 239*-1. *Social Dancing*. Fundamental steps of ballroom dancing. For beginners only.
- 254-1. *Bowling*.
- 255-1. *Fencing*.
- 315-1. *Golf*. Skills and teaching techniques.
- 316-1. *Swimming*. Advanced techniques.

- 317-1. *Life Saving and Water Safety*. Techniques of Red Cross Life Saving and Water Safety.
- 324-2 to 4. *Basic Rhythms and Folk Dancing*.
- 373-1. *Archery*. Skills and teaching techniques.
- 374-1. *Advanced Dancing*.
- 375-1. *Recreational Sports*.
- 376-1. *Advanced Modern Dancing*. Prereq, 233 or 314, or consent of instructor.

THEORY COURSES

- 025-0. *Orientation*. A course designed to acquaint students with the field of Physical Education as a profession.
- 245-4. *Theory of Play Activities*. A course dealing with age interests and characteristics of childhood and adolescence, and the adaptation of physical education activities to these.
- 301-2. *Techniques of Teaching Recreational Sports*. Analysis and methods of teaching badminton, deck tennis, volleytennis, table tennis, and other recreational sports.
- 303-5. *Kinesiology*. The mechanical analysis of physical education activities through the study of joint and muscle action. (Taught in the Department of Physical Education for Men.)
- 304-2. *Techniques of Teaching Soccer and Volleyball*. Methods of teaching, construction of daily lesson plans, and analysis of techniques. Fall.
- 305-2. *Techniques of Teaching Hockey and Speedball*. Methods of teaching, construction of daily lesson plans, and analysis of techniques. Fall.
- 306-2. *Techniques of Teaching Basketball*. Methods of teaching, construction of lesson plans, and analysis of techniques. Winter.
- 307-2. *Techniques of Teaching Tumbling, Stunts, Track and Field*. A continuation of 306. Spring.
- 308-5. *Methods of Teaching Dance*. A comprehensive course dealing with each of the various types of dance, including fundamentals, progressions, and composition in each type. Prereq, 102, 224, and 233, or equivalent. Winter.
- 309-2. *Techniques of Teaching Softball, Tennis, and Gymnastics*. Methods of teaching, construction of lesson plans, and analysis of techniques. Spring.
- 310-1. *Theory of Officiating at Hockey*. A study of requirements of a good official. Standards of umpiring field hockey as set up by the United States Field Hockey Association. Fall.
- 311-2. *Theory of Officiating at Basketball*. Study of requirements of a nationally-rated official as set up by the National Section on Women's Athletics. Spring.
- 312-1. *Theory of Officiating at Softball*. Study of requirements of a nationally-rated official as set up by the National Section on Women's Athletics. Spring.
- 318-4. *The Teaching of Physical Education for Kindergarten-Primary Child*. A study of physical activities that meet the needs of the kindergarten-primary child. Included: movement fundamentals,

- games, rhythms, self-testing and apparatus play, as well as creative activities. Course planned to fulfill the requirement of the State of Illinois for kindergarten-primary teachers.
- 319-4. *Teaching Elementary School Group Activities*. Study of age characteristics; planning of an activity program for all grade levels; care of equipment; techniques of teaching activities for elementary grades. Planned to fulfill the requirements of the State of Illinois for elementary school teachers.
- 345-2. *Supervision of Physical Education*. The functions of the supervisor of physical education; program-planning, grading and planning of the progression of activities and devices for improving instruction.
- 348-2 to 4. *Camp and Community Leadership*. Fundamentals of scouting, camping, counselling. A week-end camping trip required.
- 349-2 to 4. *Camping Education*. Course designed to give the potential camp counselor an understanding of the camp; its physical set-up, equipment and necessary routines; its personnel, purposes, traditions and possibilities.
- 350-5. *Materials and Methods for Teaching in Elementary and Secondary Schools*. A course designed for supervisors and teachers of physical education. Curriculum planning, based on grade characteristics and educational philosophy, creative rhythms, singing games, folk dancing, games of low organization—skills, skill tests, lead-up games, stunts, and tumbling. Fall.
- 351-4. *Recreation and Physical Education for Atypical and Handicapped Individuals*. Techniques of physical examination; postural defects and their correction; activities suitable for the atypical; program building; and correlation of this program with the physical education curriculum. Fall.
- 352-2. *History of Physical Education*. An historical survey of physical education from ancient times through the modern period, showing the relation between aims and practices in physical education and social and physiological needs of different periods. Winter.
- 353-4. *Organization and Administration of Physical Education*. Criteria for the selection of activities, the organization of classes, the policies and the personnel; the physical plant and its upkeep; the planning, utilization and care of equipment in the physical education program. Spring.
- 354-2. *Principles of Physical Education*. The fundamental principles, aims, and objectives of physical education, the place of physical education in the educational program, and the problems of athletics. Winter.
- 355-3. *Techniques of Teaching Swimming and Life Saving*. Methods of teaching, analysis of strokes, and devices for teaching swimming and life saving.
- 370-4. *Tests and Measurements in Physical Education*. The theory of measurement in health and physical education, the selection and administration of appropriate tests, and the interpretation of results. Projects required.
- 400-4. *Evaluation in Physical Education*. Historical background of measurement in physical education; selection and evaluation of contemporary testing devices; structure and use of tests; administering the

- testing program; and interpretation and application of results. Fulfills the tests and measurements course requirement for the degree Master of Science in Education.
- 402-3. *Organization and Administration of Intramural and Extramural Activities*. Planning intramural programs of sports; planning and co-ordinating extramural activities commonly associated with physical education.
- 403-4. *The Adaptation of Physical and Recreation Activities to the Handicapped Individual*. Recognition of postural deviations; devising and planning programs for the physical atypical.
- 404-4. *The Teaching of Sports*. Teaching methods, officiating, organization, safety precautions, and selecting equipment for sports.
- 405-4. *Current Theories and Practice in the Teaching of Dance*. History and evolution of dance; place of dance in education and recreation.
- 406-4. *Principles of Physical Education*. The place of physical education in the school program, and the principles underlying the program.
- 420-3. *Physiological Effects of Motor Activity*. A study of the general physiological effect of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system.

(See page 330 for Physical Education courses on the 500 level.)

RECREATION AND OUTDOOR EDUCATION

ASSOCIATE PROFESSOR WILLIAM FREEBERG, D.REC. (INDIANA),
CHAIRMAN

1942

ASSISTANT PROFESSOR ROBERT E. MCBRIDE, ED.D. (COLUMBIA)

1955

The Recreation and Outdoor Education minor curriculum is designed to develop professional leaders with a sound general education. Graduates are qualified for employment in youth-serving organizations, industrial and institutional recreation, public community agencies, and camping and outdoor education.

This leadership program emphasizes the practical as well as the theoretical aspects of the field. It is an inter-departmental program including the fields of health education, physical education, education, social studies, natural sciences, and creative arts. Actual field experiences in public and private recreation organizations and field experiences at Grassy Lake Camp are available for all prospective leaders.

Students should have a minimum of 18 quarter hours in art, dramatics, music, education, physical education, sociology, industrial education, conservation education, or biological science before starting work toward an undergraduate minor in recreation. It is also recommended that students have course work in first aid, safety education, and personal and community health.

The undergraduate minor program includes 12 quarter hours of required course work (201, 202, 301) and 12 quarter hours of field work (311, 312, 313, 314). In addition, students should demonstrate proficiency in water safety skills before graduation. Students are encouraged to select additional courses, with the aid of their advisers, from appropriate fields in order to meet their needs and interests.

- 201-4. *Introduction to Recreation Leadership*. Introduction to concepts of recreation, its nature, significance, and extent. Its application to schools, park departments, and municipalities.
- 202-4. *Organization and Direction of Recreation Programs*. A study of essential elements in a community recreation program. Leadership, area and facilities, activities, and organizational methods.
- 301-4. *Programs in School Camping and Outdoor Education*. Problems in school camping and their solution in specific cases, guidance in planning for school camp facilities, personnel and program, and patterns of administration and leadership techniques.
- 311-2 to 6. *Camp Leadership*; 312-2 to 6. *Playground Leadership*; 313-2 to 6. *Agency, Community Center, Social Recreation Leadership*; 314-2 to 6. *Institutional Recreation Leadership*. Supervised leadership in a public agency or private agency or at the University Camp at Grassy Lake. Emphasis on recreational activities common to such organizational programs. One regularly scheduled group meeting each week to discuss leadership problems and to co-ordinate materials, principles, and theory with practices in field work situations. Students to spend two hours a week for each quarter hour of credit.
- 360-4. *Playground Administration*. Practical study of such problems as providing facilities and equipment, setting up the program, budgeting and financing, selecting and supervising the personnel, and building good will. One hour a day, four days a week.
- 365-4. *The Organization and Administration of Community Recreation*. Practical study of such problems as providing facilities and equipment, setting up the program, budgeting and financing, promotion, selecting and supervising the staff, and integrating the administration.
- 368-4. *Camping Administration*. To develop an understanding of accepted methods of selecting and managing personnel, planning programs, maintaining health and safety measures, preparing food, developing camp counselors, evaluating camps, administering business, and doing other related procedures involved in setting up and operating a camp.
- 450-4. *Principles and Interpretation of Recreation*. Principles of recreation in relation to education and everyday life. A study of basic concepts underlying the interpretation of recreation and leisure in light of economic, psychological, political, and social conditions.
- 470-4. *Recreation in Public Education*. Emphasis on current practices and trends in curriculum content, adult education, extra-curricular activities, after school and vacation programs, and co-operative programs with other agencies.
- 480-4. *Techniques in Camping*. Preparation of material for use in songs; techniques of camp procedure, camp craft, woodsmanship, and crafts.

(See page 337 for Recreation courses on the 500 level.)

SCHOOL OF FINE ARTS

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN BURNETT H. SHRYOCK, M.A. (COLUMBIA)	1935-1944; 1950
CHIEF ACADEMIC ADVISER DAVID S. MCINTOSH, M.A. (IOWA)	1927
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. MCGRATH, PH.D (IOWA)	1949

The School of Fine Arts was created in July, 1955, to serve as the instrument of the University for the direction of training and the stimulation of creative and professional work in the fine arts, and to provide service work for the other colleges, divisions, schools, and departments of the University. It includes the departments of Art and Music.

The School of Fine Arts will make every reasonable effort to take care of the needs of students, other than art and music majors, who want an experience in the fine arts for either cultural or practical reasons.

REQUIREMENTS FOR GRADUATION

Each candidate for the Bachelor of Science in Education degree, the Bachelor of Arts degree in the College of Liberal Arts and Sciences, or the Bachelor of Arts degree in the School of Fine Arts must fulfill the general University requirements listed on page 47. Departmental requirements are listed below. A minor is not required in this School. For the Bachelor of Music and Bachelor of Music Education degrees see page 142.

ART

PROFESSOR BURNETT H. SHRYOCK, M.A. (COLUMBIA), ACTING CHAIRMAN	1935-1944; 1950
ASSOCIATE PROFESSOR F. CARLTON BALL, A.M. (SOUTHERN CALIFORNIA)	1951
ASSOCIATE PROFESSOR HAROLD L. COHEN, B.A. (ILLINOIS INSTITUTE OF TECHNOLOGY)	1955
ASSOCIATE PROFESSOR LULA D. ROACH, M.A. (WASHINGTON UNIVERSITY)	1930
ASSISTANT PROFESSOR FREDERICK L. LAURITZEN, M.F.A. (CRANBROOK ACADEMY OF ART)	1951
ASSISTANT PROFESSOR JOHN F. H. LONERGAN, B.A. (ILLINOIS)	1950
ASSISTANT PROFESSOR ROBERT W. MCMILLAN, M.A. (COLUMBIA)	1950
ASSISTANT PROFESSOR WRIGHT PUTNEY, PH.D. (PENNSYLVANIA STATE)	1955
ASSISTANT PROFESSOR BEN P. WATKINS, M.A. (LOUISIANA STATE)	1946

INSTRUCTOR EUGENE F. BUNKER, JR., M.A. (MILLS)	1955
INSTRUCTOR ELLIOTT J. ELGART, M.F.A. (IOWA STATE)	1955
INSTRUCTOR LEONARD W. KITTS, B.A. (ROLLINS)	1955
INSTRUCTOR CHARLES M. PULLEY, B.S. (ILLINOIS)	1951
INSTRUCTOR HAROLD C. SCHWARM, M.A. (BRADLEY)	1955
INSTRUCTOR MOISHE SMITH, M.F.A. (IOWA)	1955
INSTRUCTOR LYSBETH MAI WALLACE, M.F.A. (CRANBROOK ACADEMY OF ART)	1955

The Art Department offers curricula leading to the Bachelor's degree in colleges or schools listed below.

1. Bachelor of Science in Education for students in the College of Education. Major in Art Education.
2. Bachelor of Arts for students in the College of Liberal Arts and Sciences. Major in Art History.
3. Bachelor of Arts for students in the School of Fine Arts. Art major with specialization in Visual Design (Advertising); Painting and Prints; Product-Shelter Design; Crafts; Jewelry and Silversmithing; Pottery; Weaving.

A minimum of twelve credit hours of work in Art History is required of Art majors. Undergraduate offerings of the department provide both introductory and specialized experiences. Art majors are expected to select the area of specialization their study will take by the close of the freshman year. A practical objective—the development of professional standards of performance in a specialized field—characterizes the typical program. Curricula are planned to provide for those wishing to minor in art and for non-majors interested in art as an avocation.

The department reserves the right to withhold one example of each student's work for each class each year for its permanent collection. Material costs of works chosen will be met by the department.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses for a major in Art Education with a specialization in the Secondary Certificate Program: 100 (15 hours), 306, 307, 308. Additional courses selected from: 20 hours from 215, 245, 250, 358; 8 hours from 203, 231, 385; 12 hours from 345, 346, 347, 348, 349, 356.

Required courses for a major in Art Education with a specialization in the Special Certificate Program*: 100 (15 hours), 306, 307, 308. Additional courses selected from: 16 hours from 215, 245, 250, 358; 8 hours from 203, 231, 385; 12 hours from 345, 346, 347, 348, 349, 356.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

*This program meets all state and University requirements for the special certificate in art and the elementary certificate. The graduate is qualified to teach art in grades 1 through 12 and to do general teaching in grades 1 through 8.

Required Courses: 225, 226, 227, 345, 346, 347, 348, 349, 356, 382.

Recommended electives: Studio courses, 8 to 12 hours.

SUGGESTED CURRICULA IN THE SCHOOL OF FINE ARTS

General degree requirements: See page 47.

Required courses for a major in Art with a specialization in Visual Design (Advertising): 100 (15 hours), 215 (12 hours), 275 (12 hours), 375 (12 hours), 325 (15 hours). Additional courses selected from: 18 hours from 245, 250, 320, 358; 12 hours from 345, 346, 347, 348, 349, 356; 4 hours in Philosophy including 120; Psychology (9 hours); Math. 111, 112; Ind. Educ. 101; English 301.

Required courses for a major in Art with a specialization in Product-Shelter Design: 100 (15 hours), 215 (12 hours), 275 (12 hours), 366 (12 hours), 325 (15 hours). Additional courses selected from: 9 hours from 245, 250, 320, 358; 4 hours from 203, 231; 12 hours from 345, 346, 347, 348, 349, 356; 4 hours in Philosophy including 120; Psychology (9 hours); Physics 106; Math. 111, 112, 113; Ind. Educ. 101; English 301.

Required courses for a major in Art with a specialization in Painting and Prints: 100 (15 hours), 215 (12 hours), 245 (12 hours), 250 (12 hours), 358 (12 hours), 320 (12 hours), 325 (12 hours). Additional courses selected from following list: 345, 346, 347, 348, 349, 356, (12 hours); 203, 231, 385, (8 hours); electives: 8 hours.

Required courses for a major in Art with a specialization in Crafts: 100 (15 hours), 215 (12 hours), 245 (12 hours), 332 (12 hours), 302 (12 hours), 385 (9 hours). Additional courses from following list: 250, 358 (16 hours), 345, 346, 347, 348, 349, 356 (12 hours); electives: 18 hours.

Required courses for a major in Art with a specialization in Jewelry and Silversmithing: 100 (15 hours), 215 (12 hours), 245 (12 hours), 231 (4 hours), 332 (12 hours), 325 (12 hours). Additional courses selected from following list: 250, 320, 358 (12 hours), 302, 385 (12 hours), 345, 346, 347, 348, 349, 356 (12 hours); electives: 15 hours.

Required courses for a major in Art with a specialization in Pottery: 100 (15 hours), 215 (12 hours), 245 (12 hours), 203 (12 hours), 302 (12 hours), 325 (15 hours). Additional courses selected from the following list: 231, 332, 385 (12 hours); 345, 346, 347, 348, 349, 358 (12 hours); 250, 358 (12 hours); electives: 4 hours.

Required courses for a major in Art with a specialization in Weaving: 100 (15 hours), 215 (12 hours), 203 (12 hours), 231 (4 hours), 332 (8 hours), 385 (12 hours), 325 (12 hours). Additional courses selected from following list: 245, 250, 358 (24 hours); 345, 346, 347, 348, 349, 356 (12 hours); electives: 7 hours.

ART STUDIO COURSES

100-5 to 15. *Fundamentals of Art*. Three-quarter sequence. A comprehensive survey of the various technical areas of art. Required of art majors and recommended for minors and others interested in basic studio experience.

203-2 to 12. *Beginning Ceramics*. First quarter—emphasis on throwing clay objects on potter's wheel, hand building and press molding of decorative and functional containers; decorative uses of clay and glazes,

study of line and form. Second quarter—continuing study of throwing forms on the potter's wheel, decorative techniques using clay and glazes, firing the kiln; study of raw materials of ceramics; glaze making. Third quarter—continuing study of throwing forms on the potter's wheel, calculation of glaze formulas, study of special types of kiln firing; emphasis on creative approach to subject.

- 215-2 to 12. *Product-Shelter Design*. Three-quarter sequence. Prereq, 15 hours Art 100. Development of an analytical approach to the solution of problems of product and shelter design; with an introduction to joinery, growth and form of structure with basic hand tools and materials.
- 220-2 to 12. *Watercolor*. Three-quarter sequence for beginners. Technical experimentation exploring varied uses and possibilities of the medium.
- 231-4. *Jewelry*. Single term introductory course. Study of basic techniques used in construction of jewelry with an emphasis on a personal and original design experience.
- 245-2 to 12. *The Figure*. Three-quarter sequence. A study of the human figure in terms of form, movement, and structure accompanied by an exploration of possibilities of various drawing media.
- 250-2 to 12. *Oil Painting*. Three-quarter sequence. Introductory study of oil painting as a medium of expression. Individual rather than group problems planned and worked upon. Non-majors must have permission of instructor.
- 275-2 to 12. *Visual Design (Advertising)*. Three-quarter sequence. Prereq, 15 hours Art 100. Development of an analytical approach to the solutions of problems of visual design, with an introduction to typography and methods of graphic reproduction.
- 300-2 to 12. *Art Education*. Theory and practice of art activities in the elementary schools. Designed primarily to meet needs of elementary education majors.
- 302-2 to 12. *Beginning and Advanced Ceramics*. Three-quarter sequence. Similar to 203 with higher level of achievement expected. Advanced subject matter adjusted with reference to numbers of quarter hours credit in ceramics previously earned.
- 305-4. *Freehand Drawing*. Course for elementary and secondary school teachers providing experience with fundamental principles of drawing.
- 306-3. *Materials and Techniques in Art Education*. A studio course designed to provide a broad experimental experience with materials and techniques adaptable to art classes in grade and high school. In addition to studio assignments, each student will be required to complete a working file of published material and notes on materials and techniques in art.
- 307-3. *Theory in Art Education*. A survey of art education theory designed to provide the art education major with an introduction to theoretical studies in his field, and through scheduled observation visits to art classes at the University School, with the problems of relating theory to practice.

- 308-3. *Curriculum and Administration in Art Education*. A course designed to provide art education majors with experience in dealing with problems of planning and organizing art curricula in grade and high school and of introducing and administering such programs. The course will include comparative study of published material and the preparation of a working file on the subject.
- 320-2 to 12. *Advanced Painting*. Three-quarter sequence. Prereq, 8 hours in 250 and major in art.
- 323-4. *The Figure (Advanced)*. Course for majors providing opportunity for concentrated work from the figure. Prereq, 12 hours of 245.
- 325-2 to 15. *Studio*. Advanced research problems. Approval of chairman of department required for selection of project and instructor.
- 332-2 to 12. *Jewelry and Silversmithing*. Three-quarter sequence. Basic processes in jewelry and metal work. Emphasis upon design experience and high critical standard. Prereq, 231.
- 358-2 to 12. *Prints*. Three-quarter sequence. Introduction to printmaking as a medium. Studio projects in intaglio and relief processes.
- 365-4. *Art Education in the Secondary Schools*. Course for art education majors preparing to teach on secondary level; includes studio projects designed to develop awareness of technical and aesthetic needs of high school students, reading and discussion of literature, planning of curriculum.
- 366-2 to 12. *Product-Shelter Design*. Three-quarter sequence. Prereq, 12 hours Art 215. Advanced study of design problems dealing with personal and family needs. An introduction to tools, jigs, and fixtures, plastics, metals and woods, applicable to problems of mass fabrication. Nomenclature; field trips; industrial communication.
- 375-2 to 12. *Visual Design (Advertising)*. Three-quarter sequence. Prereq, 12 hours Art 275. Advanced study of design problems of hand-to-eye scale communication. i.e., cards, brochures, booklets, packaging and general advertising. Introduction to the full nomenclature of the field and the printing industry.
- 385-2 to 12. *Weaving*. Three-quarter sequence. Development of understanding of two and four harness loom and essential processes in weaving simple and pattern textiles.
- 465-2 to 12. *Research in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E)*.
- 490-2 to 12. *Studio in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E)*.

ART HISTORY AND APPRECIATION COURSES

The aims of the art history and appreciation curriculum are twofold; to develop appreciation of expression through art as related to man's general cultural development, to provide undergraduate preparation for graduate study to those who wish to prepare themselves for museum or university positions.

- 120-3. *Art Appreciation*. Introductory course relating art to daily experience. Required of art majors. Satisfies general University requirement.

- 225-4. *History of Architecture*. Fall.
- 226-4. *History of Sculpture*. Winter.
- 227-4. *History of Painting*. Study of significant historical monuments with reference to the geographical social and technical influences in architecture, sculpture, and painting. Spring.
- 345-4. *Art of the Nineteenth Century*. A survey of significant monuments and their meaning in the western world between the French Revolution and late 19th century Impressionism.
- 346-4. *Art of the Twentieth Century*. A survey of modern art from late 19th century Impressionism to contemporary ideas and works.
- 347-4. *Ancient Art*. A survey of art history from early Egyptian times to the fall of Rome. Fall.
- 348-4. *Medieval Art*. A survey of Christian art through the Gothic period. Winter.
- 349-4. *Renaissance Art*. A survey of European art, 15th to 17th century. Spring.
- 356-3. *Theory of Art*. A survey of literature in theory of art and its influence and relationship to art criticism and practical work.
- 380-4. *Theory and Appreciation of Art*. An introductory course for senior college students. Offered only in extension. Satisfies general University requirement.
- 382-4. *Seminar*. Subjects and arrangements announced periodically in the department.

(See page 294 for Art courses on the 500 level.)

MUSIC

PROFESSOR HENRY ALLEN BRUINSMA, PH.D. (MICHIGAN), CHAIRMAN	1956
PROFESSOR MAURITS KESNAR, PH.D. (IOWA)	1946
ASSOCIATE PROFESSOR STEVEN BARWICK, PH.D. (HARVARD)	1955
ASSOCIATE PROFESSOR DAVID S. MCINTOSH, M.A. (IOWA)	1927
ASSOCIATE PROFESSOR FLOYD V. WAKELAND, M.M. (BUSH CHICAGO CONSERVATORY)	1939
ASSISTANT PROFESSOR KATE E. MOE, M.S. (IDAHO)	1947
ASSISTANT PROFESSOR ROBERT MUELLER, PH.D. (INDIANA)	1948
ASSISTANT PROFESSOR GLENN WATKINS, PH.D. (EASTMAN SCHOOL OF MUSIC)	1954
ASSISTANT PROFESSOR JOHN S. WHARTON, M.M. (AMERICAN CONSERVATORY OF MUSIC)	1945
INTRUCTOR ARTHUR P. BARNES, M.M. (WICHITA)	1955
INTRUCTOR ROBERT B. FORMAN, M.A. (COLUMBIA)	1954
INTRUCTOR ELIZABETH D. HARTLINE, M.M. (NORTHWESTERN)	1953
INTRUCTOR PHILLIP H. OLSSON, M.M. (CHICAGO CONSERVATORY OF MUSIC)	1949
INTRUCTOR ROBERT S. RESNICK, M.M. (WICHITA)	1949
INTRUCTOR WILLIAM K. TAYLOR, M.M. (INDIANA)	1955
INTRUCTOR HELEN MATTHES VOGLER, EMERITA (1954)	1920
VISITING PROFESSOR ROY HARRIS	1956-57

The Department of Music is a member of the National Association of Schools of Music. Its curricula lead to the baccalaureate degree as follows:

1. Bachelor of Music, for students in the School of Fine Arts.

2. Bachelor of Music Education, for students in the College of Education, who intend to make the teaching of music their profession.
3. Bachelor of Arts, for students in the College of Liberal Arts and Sciences, who want a specialization in music as part of their general cultural education.

In addition to these degree programs, the department invites all students to participate in instrumental and choral activities, both on an extra-curricular and a credit basis.

REQUIREMENTS FOR GRADUATION

All music majors and minors must maintain a satisfactory membership in band, orchestra, or chorus each term of their university attendance. A student may receive a maximum of twelve credit hours for ensembles.

A senior recital is required of all music majors, and for Bachelor of Music majors a junior recital is also required.

Recital attendance is required of all music majors. A minimum number of recitals must be attended each term, the exact number to be announced at the first recital. A note book of all recital programs must be turned in each term as a prerequisite for graduation.

Each candidate for the degree Bachelor of Music Education must pass the proficiency test in piano and voice as early as possible in his course of study. A student with no previous preparation in piano or voice must take class piano or voice during his freshman and sophomore years. If he fails to meet the basic piano and voice requirements at the end of this time, the student must continue in class piano and class voice without credit until he passes the test. It is the responsibility of each student, with the assistance of his teachers, to meet these minimum requirements. Examples of the examination may be secured from the music office.

SUGGESTED CURRICULUM IN THE SCHOOL OF FINE ARTS

General degree requirements: Bachelor of Music degree students must meet the requirements listed on page 47 except that they are not required to take Music 100 or Art 120, six hours of 200 level courses in English, Speech 101, Practical Arts or Crafts, only 15 hours in the social studies, and only 4 hours of physics in the physical sciences area.

Required courses constituting a major in Music: 105, 106, 107, 205, 206, 207, 309, 310, 311, 312, 313, 314, 319, 323, 324, 325, 326, 336, 337, 338, 339, 341, 001 or 002 or 003; an applied music major of 48 hours; and an applied music minor of 9 hours.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: Bachelor of Music Education degree students must meet the requirements listed on page 47 except the taking of Music 100 or Art 120.

College of Education requirements: See page 103.

Required courses constituting a major in Music Education: 105, 106, 107, 205, 206, 207, 300, 303, 305I, 305V, 309, 310, 311, 318, 323, 324, 325, 326, 336, 337, 338, 341, 001 or 002 or 003; two of 010B, 010C, 010D; two of 020A, 020B, 020C, 020D, 020E; two of 050A, 050B, 050C, 050D; an applied music major of 12 hours; and an applied music minor of 6 hours.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Music: Consult the departmental adviser.

THEORY AND LITERATURE COURSES

- 100-3. *Music Understanding*. Introductory course for non-majors, with emphasis on background, purpose, and structure of representative compositions.
- 105-4, 106-4, 107-4. *Theory of Music*. Fundamentals of music in sight singing, ear training, harmony, and keyboard harmony. Fall, Winter, Spring.
- 205-4, 206-4, 207-4. *Theory of Music*. Continuation of 105, 106, and 107. Advanced harmonic techniques, modulation, altered chords, chromatic harmony, and introduction to contemporary harmonic principles. Prereq, 107.
- 309-2, 310-2, 311-2. *Orchestration I, II, III*. The instruments of the orchestra. Practical work in scoring for orchestra and band. Prereq, 107 and one year of piano on the college level. Fall, Winter, Spring.
- 312-2, 313-2. *Composition I, II*. Original composition in the smaller forms for piano, voice, string quartet, and other small combinations. Prereq, 207. Fall, Winter.
- 314-2. *Composition III*. Original composition in the larger forms. Prereq, 313.
- 315-2. *Opera Repertory*. A study of operatic literature, including student participation in scenes from operas. Admission by consent of instructor.
- 323-2, 324-2, 325-2. *Counterpoint*. Contrapuntal styles of Bach and other eighteenth and nineteenth-century composers. Creative work in two-, three-, and four-part counterpoint. Invertible counterpoint, canon, and fugue.
- 326-1 to 2. *Form and Analysis*. Form and texture of music from motif through symphony.
- 336-3. *Music History*. Musical thought from the early Greek and Roman periods; development of music in the fifteenth and sixteenth centuries. Fall.
- 337-3. *Music History*. Musical thought in the seventeenth, eighteenth, and early-nineteenth centuries (Bach to Wagner). Winter.
- 338-3. *Music History*. Wagner, the rise of nationalism, late nineteenth and twentieth century composers. Spring.
- 339-2. *V(ocal), I(nstrumental), P(iano)*. Seminar of applied music. Advanced course for senior college students only.
- 341A-1. *Music Literature*. A study of Symphonic Literature. Fall.
- 341B-1. *Music Literature*. Vocal and Larger Choral Works. Winter.
- 341C-1. *Music Literature*. Chamber Music. Spring.
- 430A-3 to 9. *Music History*. History of music; special attention to periods, philosophies, and styles of music of all periods. A sequence course offered for 3 hours each quarter.

- 430B-3 to 9. *Music Literature*. A study of the music of antiquity; medieval and Renaissance music; representative examples from the Baroque, Classical, Romantic, and Modern eras. A sequence course offered for 3 hours each quarter.
- 430C-3 to 9. *Music Theory*. Introductory analytic techniques. An intensive study of concepts of tonal organization in the various periods of music history. A sequence course offered for 3 hours each quarter.

MUSIC EDUCATION COURSES

- 300A-3. *Music Education (Elementary)*. Teaching music in the elementary grades. (For music majors only). Fall.
- 300B-3. *Music Education (Elementary)*. Teaching music in the elementary grades. (For non-music majors only). Fall, Winter, Spring.
- 303-3. *Music Education (Secondary)*. Teaching music in the high school. Spring.
- 305I-3. *Instrumental Problems and Materials*. Study of the administration of the school instrumental music program. Special stress on library, physical facilities, organization of the football or marching band, and arranging music for out-of-doors performance. Fall.
- 305V-3. *Vocal Problems, Materials and Conducting*. Vocal and psychological problems in handling choral groups, reading and acquaintance with a variety of choral material (high school level), and interpretation through conducting techniques. Winter.
- 307-4. *Recreational Music and Singing Games*. For those interested in the less formal approach to music and for prospective leaders of recreational activities.
- 308-4. *Folk Music*. Comparison of folk music collected in Southern Illinois with that of other areas, emphasis on melodic structure and textural variants. Use of folk music by composers, ethnic groups, and recreational leaders. Prereq, 105 or equivalent.
- 318-3, 319-3. *Conducting*. Techniques employed in conducting instrumental groups of various sizes and combinations. Students provided with opportunities to conduct both the University orchestra and band.
- 400-3 to 9. *Music Education*. Its history and administration.

APPLIED MUSIC COURSES

Ensemble

- | | |
|-----------------|---|
| 001-½ Band | 346-2-4 Opera Workshop |
| 002-½ Chorus | 355-2 Chamber Music. String ensemble, string quartet. |
| 003-½ Orchestra | 365-2 Chamber Music. Woodwind and brass ensemble. |
| 345-2 Madrigals | |

Private instruction is offered in the following areas of applied music. Consult with adviser for details of credit and requirements.

- | | |
|-----------------|--------------|
| 011 Violin | 021 Flute |
| 012 Viola | 022 Oboe |
| 013 Cello | 023 Clarinet |
| 014 String Bass | 024 Bassoon |

025 Saxophone	053 Trombone
031 Percussion	054 Tuba
041 Piano	055 Baritone
051 French Horn	061 Voice
052 Trumpet	071 Organ

Class instruction is offered in all areas of applied music. These courses offer the music education student practical training in the basic principles of playing the instruments and correct vocal production. They also include techniques and methods for teaching instrumental and vocal groups in the elementary and secondary schools.

010a Class Violin	020d Class Bassoon
010b Class Viola	020e Class Saxophone
030 Class Percussion	050a Class French Horn
040 Class Piano	050b Class Trumpet
010c Class Cello	050c Class Trombone
010d Class String Bass	050d Class Tuba
020a Class Flute	050e Class Baritone
020b Class Oboe	060 Class Voice
020c Class Clarinet	070 Class Organ

Graduate Applied Music Instruction is offered in the following areas of performance.

- 410-3 to 9. *Private Strings*. Study of standard solo repertoire on an advanced level.
- 420-3 to 9. *Private Woodwinds*. Study of standard solo repertoire on an advanced level.
- 440-3 to 9. *Private Piano*. Study of standard solo repertoire on an advanced level.
- 450-3 to 9. *Private Brass*. Study of standard solo repertoire on an advanced level.
- 460-3 to 9. *Private Voice*. Study of standard solo repertoire on an advanced level.
- 470-3 to 9. *Private Organ*. Study of standard solo repertoire on an advanced level.

(See page 328 for Music courses on the 500 level.)

HOME ECONOMICS

PROFESSOR ANNA CAROL FULTS, PH.D. (OHIO STATE)	1952
PROFESSOR EILEEN ELLIOTT QUIGLEY, ED.D. (MISSOURI), CHAIRMAN	1948
PROFESSOR MARION A. WHARTON, PH.D. (MICHIGAN STATE)	1955
PROFESSOR LUCY K. WOODY, M.A. (COLUMBIA), EMERITA (1949)	1911
ASSOCIATE PROFESSOR JESSIE A. WARDEN, PH.D. (PENNSYLVANIA STATE)	1955
ASSOCIATE PROFESSOR RITTA WHITESEL, M.A. (COLUMBIA)	1955
ASSISTANT PROFESSOR MARY LOUISE BARNES, M.S. (IOWA STATE)	1929
INSTRUCTOR AGNES RIDLEY, M.S. (SOUTHERN ILLINOIS)	1954
INSTRUCTOR MARJORIE SAVAGE, M.S. (IOWA STATE)	1950
INSTRUCTOR CAROLINE E. VAN MASON, M.B.A. (CHICAGO)	1949
LECTURER EILEEN DEAN HUGGINS, M.S. (UTAH STATE COLLEGE OF AGRICULTURE)	1954-56
LECTURER MARY F. MARTIN, M.H.EC. (OREGON)	1955-56

The Department of Home Economics is not at present attached to a school or college, but is an independent unit in the University's educational organization. It is directly responsible to the Vice-President for Instruction.

The purposes of the curricula in the Department of Home Economics are to offer a general cultural program based on the needs of students enrolled in home economics, to educate young women for homemaking, and to provide the means for economic independence in professions and vocations related to the activities of the home.

The Home Economics Department offers curricula leading to the following degrees:

1. Bachelor of Science in Education, for students in the College of Education.
2. Bachelor of Science, for students who specialize in any of the following areas:
 - a. Dietetics
 - b. Home Economics Extension (Home Adviser)
 - c. Home Economics in Business
 - d. Homemaking
 - e. Institutional Management

Students who have majors in other areas but who desire a minor in home economics for cultural or practical values must fulfill the following requirements:

1. They must take 24 hours divided among the fields of foods, clothing, housing, and family life. The division need not be equal unless the student plans a teaching minor. In that case, too, she should take

the special methods course in Home Economics (309), and do one term of student teaching in home economics.

2. Unless excused for a very good reason, students minoring in home economics, should live in the Home Management House, taking the course 333 for 4 of the required hours for the minor.
3. Selections should be made from the following courses: 105, 127, 135, 206, 227, 230, 233, 237, 320, 324, 326, 330, 331, 335, 336, 338, 341, 345, 360.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

This program is planned to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A Vocational Home Economics Certificate requires a bachelor's degree in home economics from an institution and in a curriculum approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education. Southern Illinois University is so approved for training teachers of home economics.

General degree requirements: See page 47.

College of Education degree requirements: See page 103.

Required courses constituting a major in Home Economics: 105, 111, 135 (Fall, Fr. Yr.); 127, Soc. 101 (Winter, Fr. Yr.); 227 (Spring, Fr. Yr.); 230, Chem. 109 (Fall, Soph. Yr.); 206, 237, Chem. 249, Art 120 (Winter, Soph. Yr.); 233, Econ. 205, Physics 102h (Spring, Soph. Yr.); 331, 360 (Fall, Jr. Yr.); 321, H. Ed. 310 (Winter, Jr. Yr.); 309, 326, 335 (Spring, Jr. Yr.); 320, 341 (Winter, Sr. Yr.); 324 (Spring, Sr. Yr.); 332, 345.

SUGGESTED CURRICULA IN HOME ECONOMICS

The following curricula are suggested for students desiring to major in Home Economics with a specialization in Homemaking, Extension, or Home Economics in Business. These curricula have the same program for the first two years.

The curriculum in homemaking is planned to develop an appreciation and understanding of the activities and relationships in the home, and to equip women for efficient and successful management of a home. The curriculum in extension is designed for those who wish to become county home advisers or home demonstration workers. The curriculum in home economics in business provides for (a) those who desire to enter the business field as home service representatives for utility companies; as demonstrators for manufacturers; or as distributors for such articles as household equipment and foods, or (b) those who desire to enter the business field as educational representatives for textile manufacturing companies; as designers or stylists for clothing or pattern manufacturers; as interior decorators or editors of fashion magazines; or, as department store personnel.

General degree requirements: See page 47.

Required courses constituting the first two years for each of the three specializations mentioned above: 105, 111, 135, Art 120 (Fall, Fr. Yr.); 127, Soc. 101, Speech 101 (Winter, Fr. Yr.); 227, Govt. 101 (Spring, Fr.

Yr.*); 230, Chem. 109, Psych. 301 (Fall, Soph. Yr.); 206, 237, Chem. 249 (Winter, Soph. Yr.); 233, Econ. 205, Mus. 100, Physics 102h (Spring, Soph. Yr.).

Required courses constituting the last two years for a specialization in Homemaking: 331, Psych. 301, H. Ed. 310, Crafts** (Fall, Jr. Yr.); 320, Psych. 303 (Winter, Jr. Yr.); 324, 335, Hist. 201, Phil. 340 (Spring, Jr. Yr.); 332, 360 (Fall, Sr. Yr.); 341 (Winter, Sr. Yr.); 326, 345, Soc. 369 (Spring, Sr. Yr.).

Recommended electives: 329, 339, 356, 364; H. Ed. 225; Govt. 370, 420; Agri. 260, 304; Foreign Languages; Crafts (as listed); Soc. 375.

Required courses constituting the last two years for a specialization in Extension (Home Adviser): 331, 370, 360 (Fall, Jr. Yr.); 321, I. Ed. 216, H. Ed. 310 (Winter, Jr. Yr.); 324, 335, Hist. 201 (Spring, Jr. Yr.); 332, 371, Journ. 393 (Fall, Sr. Yr.); 341, 320 (Winter, Sr. Yr.); 326 (Spring, Sr. Yr.); 345, Speech 107.

Recommended electives: Crafts selected from art needlework, weaving, art metal, pottery, furniture re-upholstering and re-finishing; recreational subjects selected from Women's Phy. Ed. 207, 347, 375; Music 307.

Required courses constituting the last two years for a specialization in Home Economics in Business (Plan A): 356, Bus. Ad. 330, Journ. 393, Speech 107 (Fall, Jr. Yr.); 320, 321, Bus. Ad. 337, Journ. 370 or Bus. Ad. 333 (Winter, Jr. Yr.); 324, 335, Hist. 201 (Spring, Jr. Yr.); 331, 352 (Fall, Sr. Yr.); 341, 371, 332 (Winter, Sr. Yr.); 326 (Spring, Sr. Yr.).

Required courses constituting the last two years for a specialization in Home Economics in Business (Plan B): 331, Bus. Ad. 330, Journ. 393 (Fall, Jr. Yr.); 320, 341, Bus. Ad. 250, 337 (Winter, Jr. Yr.); 324, 335, Hist. 201 (Spring, Jr. Yr.); 322, 329, 332, 360 (Fall, Sr. Yr.); 339, 371, Bus. Ad. 332B, Journ. 370 or Bus. Ad. 333 (Winter, Sr. Yr.); 326, 364 (Spring, Sr. Yr.).

Recommended electives for either Plan A or B: 338, 361, 362, 390; Art 105, 135, 385; Bus. Ad. 271, 370, 375; Ind. Educ. 120, 121, 215; Journ. 306.

A curriculum in dietetics is planned to give a strong technical education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. The suggested curriculum meets the requirements of the American Dietetics Association.

General degree requirements: See page 47.

Required courses constituting a major in Home Economics with a specialization in Dietetics: 105, Chem. 111 (Fall, Fr. Yr.); 206, Chem. 112, Soc. 101 (Winter, Fr. Yr.); 251, Zool. 101 (Spring, Fr. Yr.); Govt. 101, Chem. 305, Physiol. 209 (Fall, Soph. Yr.); Hist. 201, Chem. 306 (Winter, Soph. Yr.); Psych. 201, Econ. 205, Physics 102h (Spring, Soph. Yr.); 331, 352, 356, Micro. 201 (Fall, Jr. Yr.); 320, 350, H. Ed. 310, Bus. Ad. 250 (Winter, Jr. Yr.); 335, 309, Psych. 303, Chem. 451 (Spring, Jr. Yr.); Micro.

*Botany recommended for those taking the Business Curriculum B. See below.

**To be selected from art needlework, weaving, art metal, pottery, furniture re-upholstering and re-finishing.

422, Chem. 452 (Fall, Sr. Yr.); 359 (Winter, Sr. Yr.); 332, 340, 351 (Spring, Sr. Yr.).

Recommended electives: 355; Bus. Ad. 250; Physiol. 316.

A curriculum in institution management is planned to prepare students for managerial positions in institutional services. Graduates are prepared to fill positions as food service managers for residence halls, restaurants, hotels, tea rooms, school lunch rooms, and industrial or commercial restaurants. This curriculum meets the requirements of the National Restaurant Association.

General degree requirements: See page 47.

Required courses constituting a major in Home Economics with a specialization in Institution Management: 105, Art 120, Chem. 109 (Fall, Fr. Yr.); Bus. Ad. 102, Chem. 249, Soc. 101 (Winter, Fr. Yr.); 251, Econ. 205, Zool. 101 (Spring, Fr. Yr.); Govt. 101, Physiol. 209 (Fall, Soph. Yr.); 206, Hist. 201, Bus. Ad. 250 (Winter, Soph. Yr.); Psych. 201, Physics 102h, Bus. Ad. 271 (Spring, Soph. Yr.); 331, 352, 256, Bus. Ad. 371 (Fall, Jr. Yr.); 320, 350, Bus. Ad. 375 (Winter, Jr. Yr.); 335, 351 (Spring, Jr. Yr.); Micro. 201 (Fall, Sr. Yr.); 359, 341, 353 (Winter, Sr. Yr.); 309 340 (Spring, Sr. Yr.); 332, 371.

Recommended electives: 135, 324; Speech 101.

- 105-4. *Food and Cookery*. Production, marketing, preparation and service of foods common to family breakfasts and lunches. Fall.
- 111-2. *Home Economics Orientation*. Surveying professional opportunities in home economics; planning for the development of personal and professional proficiencies. Fall.
- 127-4. *Clothing Selection and Construction*. Fundamentals of clothing construction. Use of commercial patterns in construction of basic garments of wool, cotton, and rayon. Use of short-cut methods. Winter.
- 128-0-4. *Clothing Construction*. A course offering opportunity to discuss, observe demonstrations of, and practice the Bishop short-cut method. Offered on demand.
- 129-0-4. *Fashion Millinery*. A study of the fundamentals of millinery. Experience in millinery construction given; discussion and observation of demonstrations. Offered on demand.
- 135-3. *Textiles*. Selection of textiles from consumer standpoint. Characteristics of commonly-used fibers and fabrics; textile information as a tool in the selection and care of household textiles and clothing. Fall.
- 141-1½ to 4. *Decorative Design*. Instruction concerned chiefly with decorative processes as applied to block printing, stenciling, etc., and largely concerned with new techniques especially adapted to the needs of the class. Offered on demand.
- 145-0 to 2. *Flower Arrangement for the Home*. Application of the fundamentals of flower arrangements for the home, including the elements and principles of design, color, form, texture, pattern, rhythm, proportion, and scale. The preparation and proper use of materials, the use of mechanical aids, and the use of containers and accessories. Offered on demand.

- 206-4. *Food and Cookery*. Units on foods common to family dinners; home preservation of food; and foods for teas and parties. Prereq, 105, or permission of instructor. Winter.
- 216-0-4. *Upholstering*. Instruction given in the use of tools, materials, and fundamental processes of upholstering furniture. Course designed for those interested in the subject from an avocational or educational viewpoint. Offered on demand.
- 227-3. *Family Living*. A study of relationships and adjustments in family living, designed largely to help the individual. Fall, Spring.
- 230-3. *Applied Design*. Principles and experimentation in design and color as applied to everyday living and costume. Prereq, Art 120; H. Ec. 127. Fall.
- 233-3. *Special Problems in Clothing Construction*. Emphasis on fitting problems, uses of materials requiring special techniques, including construction of children's clothing. Prereq, 230. Spring.
- 237-3. *Child Care and Training*. Principles of development and guidance of children as applied to home situations. Directed observation involving children of varying ages. Prereq, Psych. 201. Winter.
- 251-3. *Clothing Selection and Care*. Discussion of suitability of clothes as to color, line, and interest. Expenditures for the clothing and care of it (in service and in storage) considered as factors in choice and conservation. Offered on demand.
- 300-3. *Home Economics for Men*. Units dealing with food selection, serving, and table practice; economics of the home; grooming, clothing selection, and family relations, consideration of personality evaluation. Field trip. Offered on demand.
- 309-5. *Methods of Teaching*. Study of techniques and devices in teaching vocational homemaking (for in-school and out-of-school groups). Methods in group work and individual counseling. Philosophy of homemaking education, development of teaching aids, units of work, and courses of study. Prereq, Educ. 315. Spring.
- 311-2. *Homemaking Education for Adults*. Designed to prepare students to carry on adult education programs including community surveys, advisory councils, and promoting, planning for, teaching and evaluating adult classes. Practical experiences provided. Parallels 309.
- 316-3-4. *Food Preservation*. Newer methods in the canning, preserving, and freezing of foods for home use. Prereq, 105, 206, or permission of the instructor. Offered on demand.
- 320-4. *Nutrition and Dietetics*. A study of the needs of the body for energy, growth, and regulation. Planning of dietaries for people of various ages and activities, at different cost levels. Prereq, 105 and 206, and Chem. 249. Winter.
- 321-3. *Food Demonstration*. A course offering opportunity to discuss, observe, and practice demonstrations. Emphasis on food standards and demonstration techniques. Prereq, 105, 206. Winter.
- 322-3. *Textiles and Clothing*. An advanced intensive study including fabric analysis, textiles legislation, new textiles. Prereq, 135. Offered on demand.
- 324-2. *Equipment*. Selection, use, and care. Field trips. Spring.

- 326-5. *Housing and Home Furnishing*. Dwellings, their environment, construction, and plans in relation to individual family requirements and various requirements of urban and rural family living. Selection and arrangement of artistic furnishings in relation to functional and economic aspects. Field trips. Prereq, Art 120. Spring.
- 329-3. *Fashion*. A study of the origin and development of costume. An analysis of fashion trends. Offered on demand.
- 331-3. *Home Management, Lectures*. A study of factors affecting the management of the home in meeting the needs of individuals and creating a satisfying environment for the family. Special consideration given to those problems involving the use of time, money, and energy. Fall.
- 332-4. *Home Management Residence*. Six weeks' residence in Home Management House, with actual experience in different phases of homemaking. Prereq, or required concomitants, 227, 331, 335. Field trip. Every quarter.
- 333-4. *Home Management Residence*. Same as 332. Standards in keeping with group ability. No prerequisite. Offered on demand.
- 335-4. *Meal Planning and Table Service*. The planning, preparing, and serving of formal and informal meals. Selection and care of table appointments. Prereq, 105, 206, and 320, or permission of the instructor. Spring.
- 336-4. *Meal Planning and Serving*. Principles of food selection and menu-making. Selection and use of table appointments. Demonstrations on tablesetting and service. Offered on demand.
- 338-2. *Art Needlework*. Laboratory work acquainting a student with a variety of ways to decorate garments and household articles, and providing a fund of ideas in dress designing and home furnishings. Offered on demand.
- 339-3. *Clothing Economics*. Psychological and social factors which influence economics of clothing; analysis of the fashion industry; economics of manufacturing and marketing clothing. Evaluation of ready-to-wear clothing for cost, construction, and service. Consumer problems in clothing. Offered on demand.
- 340-3. *Diet and Disease*. Modifications of the normal diet as necessitated by disease. Prereq, 320. Offered on demand.
- 341-4. *Consumer Problems*. Study of motives on consumption, family income and expenditures, selection of commodities and services, buying and selling practices, and evaluation of consumer aids. Consideration of contemporary consumer problems. Field trips. Winter.
- 345-2½-4. *Child Development Laboratory*. Observation and participation in direction of young children. Prereq, 237. Fall, Winter, and Spring.
- 349-3. *Nutrition in the School Lunch*. A study of the food needs of elementary and secondary age groups; food values, menu-making, food preparation and service of school lunches. Offered on demand.
- 350-3. *Institutional Equipment and Layouts*. Materials, construction, operation, cost, use of equipment, and analysis of floor layouts for efficient work routing in various types of institutions doing group

- feeding and housing. Field trips. Junior standing. Offered on demand.
- 351-3. *Organization and Management*. Planning, direction, supervision, control of time, labor, and money in operation of institutions feeding and housing large groups. Field trips. Senior standing. Offered on demand.
- 352-4. *Quantity Food Production*. Use of standardized formulas, power equipment, and techniques for preparation and service of food to large groups, and calculation of food costs for uniform control. Junior standing. Offered on demand.
- 353-4. *Tearoom Management*. Preparation and service of food on a commercial basis, including menu planning, cost computation, and production of food for tearoom and special occasions. Prereq, 352, 355, or parallel. Offered on demand.
- 354-3. *School Lunchroom Management*. Organization, preparation, and service of the noon meal; selection, maintenance, and arrangement of equipment; other specific problems related to food service in the public schools. Prereq, 105, 206, 335. Offered on demand.
- 355-3. *Food Purchasing for Institutions*. Producing areas, distribution, varieties, cost, specifications, buying practices, storage, and store-room control for institution food supplies. Field trips. Fall.
- 356-4. *Experimental Cookery*. Advanced food preparation from the experimental standpoint, showing how ingredients, proportions, and techniques affect the quality of the product. Prereq, 105, 206, and Chem. 249 or 306. Offered on demand.
- 359-4. *Advanced Nutrition and Dietetics*. Reports and discussions of problems dealing with nutrition; feeding experiments and dietary studies. Prereq, 320. Offered on demand.
- 360-4. *Tailoring and Construction*. Fundamental construction processes reviewed, and basic principles of tailoring developed through construction of suit or coat and tailored dress. Prereq, 233. Fall.
- 361-2. *Special Problems in Clothing Construction*. Emphasis on unusual fitting problems and use of fabrics requiring special techniques. Prereq, 360. Offered on demand.
- 364-3. *Draping and Drafting*. Basic principles of design through pattern construction and developed by two methods, draping and drafting. Draping and drafting worked simultaneously. One garment completed from student design. Prereq, 230. Offered on demand.
- 370-5. *History, Development, and Principles of Extension Work*. A study of the history, development, organization, and purposes of extension work. Discussion of problems in principles of conducting and administering extension work in home economics. Field trips. Offered on demand.
- 371-6. *Field Experience*. Six weeks of experience, observing and assisting a county home adviser, a commercial demonstrator, or a food service manager; retailing experience; opportunity for supervised learning experiences in the chosen area. Offered on demand.
- 376-4. *Workshop in Health and Nutrition*. Investigation of food, nutrition, sanitation, and other health problems related to school lunchroom,

- campus, and other community quantity feeding programs. Credit also available as Health Education 376. Offered in summer on demand.
- 414-4. *Home Economics for Elementary Teachers*. Units of work in nutrition, school lunches, family and social relationships, textiles, and clothing. Offered on demand.
- 424-4. *Selection, Use, and Care of Appliances*. Material used in equipment, methods of construction, principles of operation of appliances for cooling, refrigeration, laundering, cleaning; selection, operation, and care of appliances to obtain maximum satisfaction in use. Offered on demand.
- 473-4. *Advanced Tailoring*. A course in which the student will tailor one garment for herself. Lectures and demonstrations supplemented by up-to-date illustrative materials. Time saving methods, high quality construction details, and professional finishes stressed. Prerequisite 360 or its equivalent. Offered on demand.
- 474-4. *Advanced Textiles*. The physical and chemical analysis of textiles. Problems dealing with standards, labeling, and legislation. Current literature of developments within the field. Offered on demand.

(See page 322 for Home Economics courses on the 500 level.)

COLLEGE OF LIBERAL ARTS AND SCIENCES

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN T. W. ABBOTT, PH.D. (ILLINOIS)	1928
ASSISTANT DEAN MAX WESLEY TURNER, PH.D. (IOWA)	1947
CHIEF ACADEMIC ADVISER E. C. COLEMAN, PH.D. (ILLINOIS)	1946
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. McGRATH, PH.D (IOWA)	1949

The College of Liberal Arts and Sciences grants the degree of Bachelor of Arts. Candidates for admission to the College should have included in their high school program four units of English, three to four units of mathematics with a minimum of one and one-half units of algebra and one unit of plane geometry, one unit of physics or chemistry, and two units of a foreign language with Latin preferred if available.

Students enrolled in the College of Liberal Arts and Sciences may meet the state requirements for a limited high school teaching certificate by using as their electives certain prescribed courses in the College of Education. Students who plan to enter teaching as a profession should enroll in the College of Education.

REQUIREMENTS FOR GRADUATION

Each candidate for the bachelor's degree must meet the following requirements:

1. 192 quarter hours' credit in approved courses. Of this, 64 quarter hours must be in courses numbered 300 and above, of which 48 must be in residence. No departmental method courses or student teaching may be counted in fulfillment of the degree requirements, except as stated above.
2. A grade point average of 3.0, and grades not lower than "C" in subjects aggregating at least three-fourths of the work. "C" average is required in the major subject.
3. General education requirements as listed on page 47.
4. Four hours in psychology or philosophy.
5. A reading knowledge of a foreign language. This ordinarily requires nine hours of university study or its equivalent.
6. Proficiency in English, demonstrated by examination at the end of the junior year.
7. A major of at least 42 hours and a minor of at least 24 hours in the following subjects (some departments require more):

*Art	Geology	Philosophy
Botany	Government	Physics
Chemistry	Health Sciences	Physiology
Economics	History	Psychology
English	Mathematics	Sociology
Foreign Language	Microbiology	*Speech
Geography	*Music	Zoology

Pre-professional courses: Students planning to take pre-dental, pre-legal, pre-medical, pre-medical technology, pre-occupational therapy, pre-pharmaceutical, pre-physical therapy, pre-public health, pre-theological, or pre-veterinary courses should register in the College of Liberal Arts and Sciences.

Pre-professional students may obtain, subject to certain conditions, a bachelor's degree after three years' work (144 quarter hours) in this University and one or more years' work in a professional school. During their three years of residence at this University they need to have completed all requirements other than elective hours for the bachelor's degree which they are seeking. In some cases the completion of major and minor requirements may be done through the taking of certain courses at the professional school, but this is permitted only upon the prior approval of the appropriate department chairman. Also, there needs to be completion of at least one year of professional work with acceptable grades in a Class A medical school, a Class A dental school, a Class A veterinary school, or an approved law school. In all cases, all University graduation requirements must be met. It is advisable for students interested in this program to make their decision to seek a bachelor's degree before entering the professional school so that any questions may be clarified at an early date.

PRE-PROFESSIONAL COURSES

PRE-MEDICAL, PRE-DENTAL, PRE-VETERINARY, PRE-PUBLIC HEALTH, AND PRE-OCCUPATIONAL THERAPY

Professor Harold M. Kaplan is the chairman of a medical advisory committee established to advise all students planning to enter medical school or dental school, or to train themselves for careers in any related field.

All such students should plan their curricula very carefully, in consultation with him. They will all need at least two years' work in chemistry, including some qualitative and some organic chemistry, and one year of biology (zoology). Since they are not expecting to receive a degree from Southern, they will not necessarily be held to all the requirements for the bachelor's degree at this University; they must, on the other hand, keep constantly in mind the requirements for admission and the later required courses in the special schools which they wish to attend. Each student should write for the catalog of the school he plans to enter.

PRE-PHARMACY

Pre-pharmacy students should consult Professor Harold M. Kaplan for suggestions as to courses.

*Liberal Arts, not professional majors.

PRE-LEGAL STUDY

American law schools have no specific pre-legal requirements. Some law schools require a two-year pre-legal background; some require three years of pre-law; and a few of the leading schools now require four years.

A number of universities permit law students, if they take their third year of pre-legal work at those universities, to receive both the B.A. and the LL.B. upon completion of their legal training.

In general, pre-law students should take as much work as possible in the following subjects: English, speech, economics, government, history (especially English and American), sociology, geography, psychology, philosophy, and logic.

If a foreign language is recommended or required by the law school which the student plans to attend or if the student is uncertain as to his choice of law school, French or Latin is suggested.

Aside from the above-mentioned departments and courses, the pre-legal student is free to take the electives of his choice.

PRE-PUBLIC HEALTH

A pre-professional curriculum in the health sciences has been established in the College of Liberal Arts and Sciences for students interested in careers in public health.

The curriculum has been established for students interested in public health sanitation and public health laboratory work and will qualify students for admission to a school of public health for graduate work in public health.

The curriculum is sufficiently broad to accommodate students who are interested in pre-medical or pre-dental careers.

A minor in chemistry is a prerequisite for the major. Required and elective courses for the major and suggested four-year curriculum may be had by consulting the Office of the Dean, College of Liberal Arts and Sciences.

SUGGESTED PRE-PROFESSIONAL CURRICULUM WITH A
MAJOR IN HEALTH SCIENCE

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Health Science: Bot. 101; Health Educ. 300, 325, 355, 356; Micro. 311; Chem. 111, 112, 113, 305, 306; Math. 111, 112, 113; Physiol. 209 (or 315 for advanced students), 316; Zool. 100, 101, 105, 306, 406, 407; Physics 101 or 206, 102 or 207.

Recommended electives for a major in Health Science with a specialization in Sanitation: Agri. 231, 303; Geol. 220; Ind. Educ. 101; Physics 208; Micro. 422, 423; Zool. 310; Govt. 466.

Recommended electives for a major in Health Science with a specialization in Public Health Laboratory: Chem. 232, 451, 452; Micro. 302, 422, 423, 425; Physiol. 317, 433; Zool. 320, 321, 401; Govt. 466.

Other recommended electives for a major in Health Science: Physics 314; Physiol. 365; Zool. 202, 300, 313,

PRE-THEOLOGICAL

Any student who plans to enter a graduate theological seminary should consult his clergyman or his major professor at the earliest possible date. He should obtain a catalog of the seminary he plans to enter and prepare himself to meet its specific entrance requirements. The American Association of Theological Schools, which is the accrediting agency accepted by most theological schools, suggests a broad, basic education with an emphasis upon ability to think, speak, and write clearly and correctly. No undergraduate major in religion is offered at Southern Illinois University, but the American Association of Theological Schools feels that such undergraduate specialization is not usually desirable. Among suitable majors leading to the required bachelor's degree are philosophy, history, and sociology.

The American Association of Theological Schools regards the following as a minimum list of fields of study with which it is desirable that a student should have acquaintance before beginning study in seminary. In parentheses are courses offered at Southern Illinois University which should be particularly useful in supplying this background. 4 to 6 semester hours in Bible or Religion (Phil. 301 and certain courses offered by the Religious Foundations). 12 to 16 semester hours in English literature, composition, and allied studies (English 390; Jour. 393; Speech 102, 103, 107). 12 to 16 semester hours in foreign languages in at least one of the following: French, German, Greek, Hebrew, or Latin (Greek 101, 102, 103). 6 to 12 semester hours in history (Hist. 210, 304, 416). 6 to 12 semester hours in philosophy (Phil. 301, 320, 340, 360, 381, 382, 383). 2 to 3 semester hours in psychology (Psych. 301, 303, 305, 401, 410). 4 to 6 semester hours in the social studies such as economics, education, government, social psychology, social welfare, sociology (Econ. 310, 450; Educ. 355; Govt. 370, 441; Soc. 202, 203, 212, 235, 320, 403).

BOTANY

PROFESSOR WALTER B. WELCH, PH.D. (CHICAGO), CHAIRMAN	1938
ASSOCIATE PROFESSOR MARGARET KAEISER, PH.D. (ILLINOIS)	1947
ASSOCIATE PROFESSOR JOHN W. VOIGT, PH.D. (NEBRASKA)	1950
ASSISTANT PROFESSOR ALBERT J. HENDRICKS, PH.D. (NEBRASKA)	1955
ASSISTANT PROFESSOR LEO KAPLAN, PH.D. (HARVARD)	1950
ASSISTANT PROFESSOR WILLIAM M. MARBERRY, A.M. (ILLINOIS)	1939
ASSISTANT PROFESSOR S. LANE WILSON, PH.D. (ILLINOIS)	1955
VISITING PROFESSOR RAYMOND J. POOL, PH.D. (NEBRASKA)	1955-56

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Botany: A minimum of nine courses including 101, 202, 203, 210, and 320.

Additional courses recommended for a major in Botany: Zool. 101, 105; Micro. 311; Chem. 111, 112, 113, 305, 306; Math. 106 or 111, 120.

Prospective majors are urged to consult with a departmental counselor.

Required courses constituting a minor in Botany: A minimum of six courses including 101, 202, and 203.

- 101-5. *General Botany*. An introductory study of the morphology, anatomy, and physiology of the seed plants including vegetative and sexual reproduction; identification and recognition of common trees by leaf and stem characters. Laboratory and field studies.
- 111-4. *Lectures in General Biology*. A general course consisting of a study of the variety of living things and the unity which exists between the plant and animal kingdoms. Emphasis will be on the broad general principles of biology.
- 131-5. *Field Biology*. A course for those who are planning to teach in the rural and elementary schools; methods for the identification of various types of plants and animals; location of source material suitable for teaching nature study. Laboratory and field work. Cost to student about \$5.00.
- 202-5. *General Botany*. A study of representative plants of the great plant groups; classification; evolution of the plant kingdom. Laboratory, and one all-day (required) field trip. Student cost about \$5.00. Prereq, 101.
- 203-5. *Systematic Botany*. A study of the principles of classification and use of manuals; seed plants and ferns of the local flora. Field work. Student cost about \$5.00. Prereq, 101.
- 210-5. *Plant Anatomy*. An introduction to cell division, origin, development and maturation of the structures of the vascular plants. Laboratory. Prereq, 101, 202.
- 300-5. *The Algae*. A study of the structure, development, and relationships of the algae. Laboratory and some field work. Prereq, 101, 202.
- 301-5. *The Fungi*. A study of the structure, development, and relationships of fungi. Problems of economic and scientific interest stressed. Laboratory. Prereq, 101, 202.
- 308-5. *Taxonomy of Cultivated Plants*. A study of the classification of woody and herbaceous cultivated plants, both exotic and native. Three all-day field trips. Cost to the student about \$6.00. Prereq, 101, 203.
- 311-5. *General Bacteriology (same as Microbiology 311)*. 3 hours lecture; 4 hours lab. Mr. McClary. Prereq, one term of Botany or Zoology, and Chemistry. Fall.
- 315-5. *Plant Genetics*. A general course involving principles of evolution and genetics of plants. Prereq, minor in Agriculture, Botany, or Zoology.
- 320-5. *Elements of Plant Physiology*. A study of the functions of plants and their relation to the various organs. Laboratory. Prereq, 101, 202.
- 321-5. *Elementary Botanical Microtechnique*. Methods in preservation and preparation of plant materials, both non-vascular and vascular. Prereq, one year of Botany.
- 340-5. *Plant Ecology*. A general course, consisting of studies of the ecology of individual plants and plant communities. Field and laboratory. Cost to the student about \$7.00. Prereq, 101, 202, 203.

- 350-5. *Plants in Relation to Man*. A study of the basic relationships of plants to the life of man; the history, geography, crop ecology, production, consumption, and uses of plants and plant products of economic importance.
- 355-5. *Plant Pathology (same as Microbiology 355 or Agriculture 355)*. A study of plant diseases caused by fungi, bacteria, and viruses. Special attention given diseases of Southern Illinois plants. Laboratory and field trips. Prereq, 101, 202, 301, or approval of the instructor.
- 390-2 to 4. *Readings in Botany*. A course of individually assigned readings in classical botanical literature; both oral and written reports required; open only to undergraduate students. Prereq, a major or minor in Botany.
- 391-2 to 5. *Special Problems in Botany*. Individual laboratory or field work under supervised direction. Both written and oral discussions required; open only to undergraduate students. Prereq, major or minor in Botany; approval of department.
- 403-2 to 5. *Advanced Taxonomy*. An advanced study of any division of the plant kingdom, both native and cultivated plants treated. Laboratory and field work. Cost to student about \$10.00. Prereq, 101, 203.
- 407-4. *Introduction to Statistical Inference (same as Mathematics 407)*. A basic introduction to the simpler problems of statistical inference, to prepare students for courses in applied fields. Descriptive statistics; elementary probability; binomial, poisson; normal distributions; confidence limits of parameters; significance tests. Prereq, Math. 113 or 120 or consent.
- 411 (302)-5. *The Bryophytes and Pteridophytes*. A study of the structure, development, and relationships of the liverworts and mosses, and ferns and fern allies. Laboratory. Prereq, 101, 202.
- 412 (303)-5. *The Spermatophytes*. A study of the structure, development, and relationships of the gymnosperms and angiosperms. Laboratory. Prereq, 101, 202, 203.
- 425-5. *Advanced Plant Physiology I*. A study of water relations, mineral nutrients, and colloidal phenomena in plants. Laboratory. Prereq, 101, 202, 210, 320. Desirable antecedents, year of chemistry, some physics.
- 426a-3. *Biochemistry and Physiology of Microorganisms (same as Microbiology 425)*. 3 hours lecture. Prereq, Microbiology 311 and organic chemistry. Fall.
- 426b-2. *Biochemistry and Physiology of Microorganisms (same as Microbiology 426)*. 4 hours laboratory. Fall.
- 430-5. *Advanced Plant Physiology II*. A study of photosynthesis, plant pigments, plant foods, enzymes, respiration, growth, and movement. Laboratory. Prereq, 101, 202, 210, 320. Desirable antecedents, year of chemistry, some physics.
- 450-5. *Plant Geography*. A world survey of natural areas of vegetation. Evolution of floras and present distribution. Prereq, 101, 202, 203, or approval of the instructor.

- 450a-5. *Grasses*. Taxonomy, distribution, and uses of grasses. Prereq, 101 202, 203, or permission of instructor.
- 470-4. *Methods in Biology (same as Zoology 470)*. A study of methods, objectives, types of courses. Laboratory and field trips to Southern Illinois high schools. Prereq, major in Botany or Zoology.
- 480-4. *Classic Principles of Botany*. A consideration of theories, principles, and developments in the various divisions of the plant sciences. Prereq, 101, 131, or 350.

(See page 294 for Botany courses on the 500 level.)

CHEMISTRY

PROFESSOR T. W. ABBOTT, PH.D. (ILLINOIS)	1928
PROFESSOR ELBERT H. HADLEY, PH.D. (DUKE)	1947
PROFESSOR J. W. NECKERS, PH.D. (ILLINOIS), CHAIRMAN	1927
PROFESSOR ROBERT A. SCOTT, PH.D. (ILLINOIS)	1923
PROFESSOR KENNETH A. VAN LENTE, PH.D. (MICHIGAN)	1931
ASSISTANT PROFESSOR RUSSELL F. TRIMBLE, JR., PH.D. (MASSACHUSETTS INSTITUTE OF TECHNOLOGY)	1954
ASSISTANT PROFESSOR ROBERT E. VAN ATTA, PH.D. (PENNSYLVANIA STATE)	1954
VISITING PROFESSOR HOBART H. WILLARD, PH.D. (HARVARD)	1956
LECTURER RAYMOND L. FOSTER, M.A. (MISSOURI)	1955-56
ASSISTANT INSTRUCTOR GEORGE BURTON ELLIS, B.A. (SOUTHERN MISSIONARY)	1955-56
ASSISTANT INSTRUCTOR PAUL M. HAEUBER, B.S. (MCKENDREE)	1955-56
ASSISTANT INSTRUCTOR RICHARD L. TERRY, B.S. IN ED. (SOUTHERN ILLINOIS)	1955-56
ASSISTANT INSTRUCTOR JACK WALLACE, B.A. (SOUTHERN ILLINOIS)	1955-56

The Department of Chemistry is on the accredited list of the American Chemical Society, so that graduates of the following curriculum can become senior members of the A.C.S. two years after graduation and will be certified as having satisfied the A.C.S. requirements. The A.C.S. prescribed curriculum is one year each of general, analytical, organic, and physical chemistry, plus at least eight quarter hours of advanced chemistry, including 45 to 60 clock-hours of laboratory work. Qualitative Organic Chemistry is recommended as one of these courses. Also prescribed is a year of calculus (mathematics minor) and at least four quarters of physics; and a reading knowledge of German. Russian or French is advised as a second language.

College of Liberal Arts and Sciences majors in chemistry without A.C.S. approval are required to have a minimum of 48 hours. Strongly recommended is one year each of inorganic, analytical, and organic chemistry—111, 112, 113, 221, 231, 232, 341, 342, 343, with 451 and 452 or 441 and 471 or 461, 462, and 463.

College of Education majors must have a minimum of 36 hours including 111, 112, 113, 221, 231, 232, 341 or 305, and 342 or 306. Surveys show that the best teaching combination for ready employment is the chemistry-physics-mathematics combination; so minors in physics and mathematics

are recommended. The addition of two courses in biology will add the qualification to teach general science.

All chemistry majors must also take 375, 376, 475, 476.

A student majoring in chemistry must maintain a 3.0 average in chemistry courses for admission to any chemistry courses beyond the freshman level.

A chemistry minor is to take the following courses: 111, 112, 113, 221 or 232, 305 and 306, or 341, 342, and 343.

Pre-professional requirements: Pre-Medicine: For students taking a pre-medical program, the College of Medicine of the University of Illinois will accept the following courses as fulfilling the entrance requirements in chemistry: 111, 112, 113, 232, 305, 306, and 365. Pre-Dentistry and Pre-Veterinary: Pre-dental and pre-veterinary students should note that courses 111, 112, 113, 231, 232, 305, and 306 are required by the University of Illinois professional schools. Pre-engineering students should take 111, 112, and 113. In general, the student planning to obtain a professional degree in another school should conform to the requirements of that particular institution and course.

- 101-4. *General Chemistry*. A survey course for students who wish only to satisfy the general education requirements in physical science. Not for chemistry majors and minors or for agriculture, home economics, pre-medical, pre-engineering, and other pre-professional students. Composition and states of matter, valence, formulas and equations, solutions and electrolytes; water, oxygen, carbon, sodium, and iron. Lect. and lab. Every quarter.
- 102-4. *General Chemistry*. Continuation of 101, completing a survey of the more important non-metals and metals, and of simple organic and biological chemistry. Lect. and lab. Prereq, 101. Spring.
- 109-5. *Inorganic Chemistry*. A beginning course for home economics students. Composition of matter; structure of the atom, valence, formulas and writing of equations; ionization, acids, bases and salts; pH; the more common metals, non-metals, and amphoteric elements. 4 hrs. lect.; 3 hrs. lab. Mr. Scott. Fall.
- 111-5. *Inorganic Chemistry*. (1 hr. credit after 101.) A beginning course (high school chemistry not a prerequisite) for chemistry majors and minors, pre-medical, pre-dental, pre-engineering, pre-veterinary, and dietetic students. Atomic structure, valence, formulas, equations; general properties of gases, liquids, and solids, oxygen, hydrogen, water, solutions, and the halogens. Lect. and lab. Fall, Winter.
- 112-5. *Inorganic Chemistry*. Gram molecular weights, chemical equilibrium, electrolytes, acids, bases, and salts; normal solutions; the chemistry of sulfur, nitrogen, phosphorus, carbon, silicon, and boron. Lect. and lab. Prereq, 111. Winter, Spring.
- 113-5. *Inorganic and Qualitative Chemistry*. The common metals, their metallurgy, properties, and compounds, as well as their qualitative detection in simple unknowns. Lect. and lab. Prereq, 112. Spring, Summer.
- 221-5. *Qualitative Analysis*. Theory and method of analytical detection of cations and anions. Simple water-soluble, acid-soluble salts, and

- more complex mixtures, analyzed in the laboratory. Lect. and lab. Prereq, 113, Math. 113. Fall.
- 231-5. *Quantitative Analysis*. Gravimetric determinations of chloride, iron, sulfate copper and limestone in the laboratory; accompanied by calculations and discussions of methods of determination. Lect. and lab. Prereq, 221, Math. 113. Winter.
- 232-5. *Quantitative Analysis*. Volumetric analysis with stoichiometrical accompaniments, and discussion of applications; calibration of apparatus, acid-base, permanganate, dichromate, iodometric and precipitation titrations. Lect. and lab. Prereq, 113 and logarithms. Spring, Summer.
- 249-5. *Organic Chemistry*. Hydrocarbons and halogen derivatives; alcohols and ethers, aldehydes and ketones and acids; acid derivatives and substituted acids; optical isomerism; amines, amino acids, and proteins; esters and lipids; carbohydrates; heterocyclic and aromatic compounds; enzymes, digestion and fermentation; vitamins and nutrition; dyes and detergents. 4 hrs. lect.; 3 hrs. lab. Mr. Scott. Winter. Prereq, 109.
- 305-4. *Organic Chemistry*. A course for chemistry minors and pre-professional students. The common aliphatic compounds, with particular emphasis upon nomenclature and properties as related to biological processes. Lect. and lab. Mr. Hadley. Prereq, 10 hrs. of inorganic chemistry. Fall.
- 306-4. *Organic Chemistry*. A continuation of 305; heterocyclic and aromatic compounds; dyes, enzymes, proteins and carbohydrates, vitamins, and hormones. Lect. and lab. Mr. Hadley. Prereq, 305. Winter.
- 341-5. *Organic Chemistry*. For chemistry majors. The hydrocarbons, alcohols, ethers, ketones, and acids in the aliphatic field. Lect. and lab. Prereq, 113, 221, or 232. Fall.
- 342-5. *Organic Chemistry*. A continuation of 341, with amides, amines, complex acids, stereoisomerism, sugars, starches and proteins, followed by an introduction to the chemistry of aromatic compounds. Lect. and lab. Prereq, 341. Winter.
- 343-5. *Organic Chemistry*. A completion of the study of the chemistry of aromatic compounds, begun in Chemistry 342. Lect. and lab. Prereq, 342. Spring.
- 375-0, 376-0. *Seminar*. Required of all junior chemistry majors. Winter, Spring.
- 411-3. *Inorganic Chemistry*. Modern inorganic chemistry including atomic structure, chemical bonds, complexes and chelate structures; chemistry of familiar and less familiar elements. Prereq, 221, 231, 232, 342.
- 431-3. *Quantitative Organic Chemistry*. The quantitative determination of functional groups and elements commonly found in organic compounds by selected methods of analysis. Lect. and lab. Prereq, 221 and 343.
- 435-2 to 5. *Instrumental Methods of Analysis*. Theory and practice of instrumental analytical measurements. Including spectrophotometry,

- refractometry, potentiometry, polarography, and others. Lect. and lab. Prereq, 231, 232, and one year of Physics.
- 441-4. *Qualitative Organic Analysis*. A systematic study of the separation and identification of organic compounds by a procedure based on solubility and classification reagents. Lect; lab. Prereq, 221 and 343. Winter.
- 451-4. *Biological Chemistry*. A study of carbohydrates; fats and related substances, proteins and amino acids; enzymes, digestion, absorption, and detoxication. Lect; lab. Mr. Scott. Prereq, 306 or 343 (registration in 343). Spring.
- 452-4. *Biological Chemistry*. A study of the blood and lymph; acid-base regulation; metabolism of carbohydrates, lipids, and proteins; urine; calorimetry and energy metabolism; nutrition and vitamins; and hormones. Analysis of urine and blood. Lect; lab. Mr. Scott. Prereq, 232 and 451. Summer.
- 461-4. *Physical Chemistry*. A study of gases, liquids, solids, solutions, homogeneous and heterogeneous equilibria. Lect.; lab. Mr. Van Lente. Prereq, 231, 232, and 343; Math. 252; Physics 106, 107, and 108. Fall.
- 462-4. *Physical Chemistry*. A continuation of 461, to include a study of chemical kinetics, electrical conductance, electromotive force, and electrolytic equilibrium. Lect.; lab. Mr. Van Lente. Prereq, 461. Winter.
- 463-4. *Physical Chemistry*. A continuation of 462, including chemical thermodynamics, the quantum theory, photochemistry, nuclear structure, atomic structure, and molecular structure. Lect.; lab. Mr. Van Lente. Prereq, 462; Physics 305. Spring.
- 471-4. *Industrial Chemistry*. A survey course on modern industrial chemistry, including a study of chemical literature, and an introduction to chemical research processes. Mr. Hadley. Prereq, 342, and a reading knowledge of German or French. Spring.
- 475-1, 476-1. *Seminar*. Required of all senior chemistry majors. Winter, Spring.
- 491-3 to 12. *Senior Research*. Chemical research on relatively simple problems, with direction of staff members. Open to senior chemistry majors with at least a "B" average and with approval by the department. Ten hours of laboratory a week. Fall, Winter, Spring, and Summer.

(See page 297 for courses in Chemistry on the 500 level.)

ECONOMICS

While the Department of Economics is in the School of Business and Industry (see page 81 for a complete listing of courses), it can supply a major and a minor in the College of Liberal Arts and Sciences. For the suggested curriculum in economics for students in the College of Liberal Arts and Sciences, see page 81.

ENGLISH

PROFESSOR EMMA L. BOWYER, A.M. (CHICAGO), EMERITA (1947)	1912
PROFESSOR E. C. COLEMAN, PH.D. (ILLINOIS)	1946

PROFESSOR ROBERT D. FANER, PH.D. (PENNSYLVANIA)	1930
PROFESSOR JESSE W. HARRIS, PH.D. (ILLINOIS)	1939
PROFESSOR W. B. SCHNEIDER, PH.D. (CHICAGO), CHAIRMAN	1936
PROFESSOR CHARLES D. TENNEY, PH.D. (OREGON)	1931
ASSOCIATE PROFESSOR FRANCES M. BARBOUR, M.A. (WASHINGTON UNIVERSITY)	1925
ASSOCIATE PROFESSOR JAMES BENZIGER, PH.D. (PRINCETON)	1950
ASSOCIATE PROFESSOR EDITH S. KRAPPE, PH.D. (PENNSYLVANIA)	1929
ASSOCIATE PROFESSOR EDWARD EARLE STIBITZ, PH.D. (MICHIGAN)	1952
ASSOCIATE PROFESSOR HENRY L. WILSON, PH.D. (IOWA)	1946-1948; 1949
ASSOCIATE PROFESSOR GEORGIA GANTT WINN, PH.D. (PITTSBURGH)	1947
ASSISTANT PROFESSOR JULIA M. BARBER, A.M. (ILLINOIS)	1936
ASSISTANT PROFESSOR WINIFRED BURNS, A.M. (ILLINOIS)	1939
ASSISTANT PROFESSOR G. C. CAMP, PH.D. (ILLINOIS)	1947
ASSISTANT PROFESSOR ELIZABETH A. COX, A.M. (KANSAS), EMERITA, (1949)	1920
ASSISTANT PROFESSOR FRED K. LINGLE, A.M. (ILLINOIS)	1948
ASSISTANT PROFESSOR WILLIAM E. SIMEONE, PH.D. (PENNSYLVANIA)	1950
ASSISTANT PROFESSOR MAE TROVILLION SMITH, A.M. (INDIANA)	1919-1931; 1943
ASSISTANT PROFESSOR WALTER F. STATON, PH.D. (PENNSYLVANIA)	1955
INSTRUCTOR MARTHA M. CLARK, M.A. (SOUTHERN ILLINOIS)	1953
INSTRUCTOR BETTY LOU MITCHELL, M.A. (SOUTHERN ILLINOIS)	1949
INSTRUCTOR FRANK MOAKE, M.A. (SOUTHERN ILLINOIS)	1955
INSTRUCTOR DANIEL J. SCHNEIDER, M.A. (CHICAGO)	1949-1950; 1952
INSTRUCTOR EDNA SPIRES TRAVIS, M.S. IN ED. (SOUTHERN ILLINOIS)	1948
LECTURER ROBERT CLIMER, M.A. (CHICAGO)	1955-56
LECTURER DIANA L. DODD, M.A. (SOUTHERN ILLINOIS)	1955-56
LECTURER EDWARD P. FITZSIMMONS, A.M. (MCGILL)	1954-56
LECTURER HERBERT R. HABER, A.M. (CHICAGO)	1955-56
LECTURER FRANCES TAPPELLA HUFF, M.A. (SOUTHERN ILLINOIS)	1954-56
LECTURER IRENE NYQUIST, M.A. (MINNESOTA)	1954-56
LECTURER RAYMOND S. RAINBOW, JR., A.M. (CHICAGO)	1949-56
LECTURER ELEANOR YOUNG, M.A. (SOUTHERN ILLINOIS)	1955-56

An English major is 48 hours, including nine hours of freshman composition and six hours of sophomore literature. The remaining 33 hours should be from courses numbered 300 or above. Various requirements are listed below.

Students electing an English major should consult the chairman of the English department as soon as possible to obtain help in planning their programs well ahead.

The English minor is 24 hours. For students matriculating in 1952 and after, it may include three hours of freshman composition, and should include six hours of sophomore literature, English 300, 318, and a combination of English 302-316 or 316-317. Deviations from these requirements should have the approval of the chairman of the department of English.

SUGGESTED CURRICULUM FOR A MAJOR IN ENGLISH

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

College of Education requirements: See page 103.

Required courses constituting a major in English: 302, 316, 317 (preferably in sequence and in the junior year); 300; one year of a foreign language or a successful examination in a foreign language; at least three courses from the list in the following table, so selected that no two are in the same vertical or horizontal row.

	Periods	Poetry	Prose	Drama
Elizabethan	424			360
				365
				366
17th and 18th Century	315	370	354	361
	314			
19th Century		320	326	
		321	355	
20th Century		330	335	363
			308	
			356	

Recommended additional courses: 318; one course in one of the general or background subjects: English language (301, 401, 402), or criticism (369, 468, 469), or composition (390, 392, 492); Hist. 323, 324, and recent U. S. History; Philosophy; and, if the student is in the College of Education, Eng. 485. Also, for those planning to be high school teachers, Journ. 304.

Courses numbered 400 to 499 may be taken for graduate or for undergraduate credit; senior standing is required of undergraduates enrolling in the 400 courses.

English 101, 102, 103 may not be postponed, but should be registered for until all three are completed.

- 101-3. *Freshman Composition*. Expository writing, with emphasis upon the sentence. Review of grammar.
- 102-3. *Freshman Composition*. Expository writing, with emphasis upon organization. Prereq, 101.
- 103-3. *Freshman Composition*. The research paper and other special forms. Prereq, 102.
- 105-3 to 6. *English as a Foreign Language*. Open to foreign students only. Maximum of 3 hours to be earned per quarter; graduate students receive no credit.
- 205-3. *Introduction to Poetry*. Emphasis on technique, type, and period.
- 206-3. *Introduction to Drama*. The form, artistry, and ideas of various plays from most of the notable literary periods. Approximately twenty plays read.
- 209-3. *Introduction to World Literature*. A reading of masterpieces of European literature of various periods.

- 211-3. *Introduction to Fiction*. An examination of the novel; designed to acquaint the student with the important aspects of artistic excellence in this form.
- 212-3. *Introduction to Modern Literature*. Principal forms, ideas, and writers of the literature of America and England in the twentieth century. Especially recommended to majors in other fields than English.
- 300-3. *Principles of English Grammar*. Required of majors and minors in English. Majors and minors other than in English should take English 391. Credit not allowed for both courses.
- 301-3. *Introduction to Semantics*. The nature of language, the emotional and intellectual content; breaking down linguistic naivete, and developing a consciousness of the motives in the use of language.
- 302-4. *English Literature to 1550*. Required of English majors.
- 308-4. *American Novel*. Emphasis on Hawthorne, Melville, Crane, Lewis, and Cather.
- 312-3. *Folklore*. A study of the types of folklore, and wide reading in the field. Students expected to collect and classify examples from local lore.
- 314-4. *Seventeenth-Century Literature*.
- 315-4. *Eighteenth-Century Literature*.
- 316-4. *English Literature from 1550 to 1750*. Required of majors. Credit for 316 not given to students who already have credit for 201.
- 317-4. *English Literature after 1750*. Required of majors. Credit for 317 not given to students who already have credit for 202.
- 318-4. *A Survey of American Literature*.
- 320-4. *English Romantic Poetry, 1780 to 1830*.
- 321-4. *Victorian Poetry, 1830 to 1880*.
- 326-4. *Nineteenth-Century Prose*. English non-fiction prose of the last century.
- 330-4. *Modern British Poetry*.
- 335-4. *The Short Story*.
- 354-4. *Development of the English Novel*. From Defoe through Scott.
- 355-4. *The Victorian Novel*.
- 356-4. *The Novel Since 1900*. Novelists of various nations. Recommended for students not majoring in English.
- 360-4. *English Drama to 1642*.
- 361-4. *Restoration and Eighteenth-Century Drama*.
- 362-4. *The Development of Tragic Drama from Aeschylus to the Present Time*. Principal tragic dramas and the shifting conceptions of tragic dramas and the shifting conceptions of tragic form and matter in the various ages.
- 363-4. *Modern British Drama*.
- 365-4. *Shakespeare*. The chief comedies and histories.
- 366-4. *Shakespeare*. The chief tragedies.
- 369-4. *History of Literary Criticism*. The ideas and techniques of criticism, from Aristotle to the end of the nineteenth century.
- 370-4. *Milton*.
- 377-4. *Comparative Literature. Twentieth Century*. Fiction, poetry, and drama, chiefly from the literatures of continental Europe.

- 378-4. *Comparative Literature to the Renaissance*. Readings from translations of Homer, Aeschylus, Sophocles, Euripides, Aristophanes, Plato, Vergil, Terence, Dante, and others.
- 379-4. *Comparative Literature from the Renaissance to 1900*. Readings in translation from Rabelais, Cervantes, Voltaire, Rousseau, Goethe, Heine, Turgenev, Dostoyevsky, and others.
- 390-3. *Advanced Composition*. Expository writing.
- 391-3. *Usage in Spoken and Written English*. The essentials of structural grammar and the "common decencies." Prerequisite to student teaching, except for English majors and minors, who take 300.
- 392-3. *Advanced Composition: Creative Writing*. Narrative, poetic, and other art forms, with study of contemporary models.
- 402-4. *Chaucer*.
- 403-4. *The English Language*. A history. Knowledge of German a desirable preparation for the course.
- 405-4. *Modern American Poetry*. A study of the important poets since Whitman.
- 406-4. *American Drama*. The rise of the theatre in America, with reading of plays, chiefly modern.
- 407-4. *Literary Criticism in America*.
- 408-4. *Intellectual Background of American Literature*. The relationship of basic ideas in America to American literature. Prereq, 318.
- 424-4. *English Renaissance*. Non-dramatic literature.
- 431-4. *The Eighteen-Nineties*. Study of English authors of the 1890's.
- 464-4. *Modern Continental Drama*. A survey of the continental drama of Europe since 1870; representative plays in Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal.
- 467-4. *Studies in Prose Style*. Analysis of the methods and devices used by prose writers to obtain aesthetic and emotional effects.
- 468-4. *Aesthetics of Literature*. The basic principles of literary composition and appreciation, in the light of recent aesthetic theory.
- 469-4. *Modern Criticism*. Recent critics and critical attitudes, and practice in writing criticism.
- 485-4. *Problems in the Teaching of English*. Studies of the aims, methods, materials, tests, programs, and other aspects of English instruction in the high school.
- 492-4. *Advanced Creative Writing*. A laboratory course in creative writing. Prereq, 392, or consent of the instructor.
- 499-2 to 6. *Readings in English*.

(See page 305 for English courses on the 500 level.)

FOREIGN LANGUAGES

PROFESSOR J. CARY DAVIS, PH.D. (CHICAGO)	1930
PROFESSOR VERA L. PEACOCK, PH.D. (CORNELL), CHAIRMAN	1930
ASSOCIATE PROFESSOR MARY EILEEN BARRY, PH.D. (CHICAGO)	1946
ASSOCIATE PROFESSOR HELLMUT A. HARTWIG, PH.D. (ILLINOIS)	1948
ASSOCIATE PROFESSOR MADELEINE M. SMITH, PH.D. (YALE)	1929
ASSISTANT PROFESSOR ANNA K. NEUFELD, A.M. (KANSAS)	1945
VISITING PROFESSOR JERONIMO NUNEZ MALLO, PH.D. (MADRID)	1956-57
LECTURER CHARLES VYNER BROOKE, PH.D. (HARVARD)	1955-57

For a major in a language, a student in the College of Education must complete 36 hours exclusive of 101, 102, and 103; a student in the College of Liberal Arts and Sciences, 42 hours, exclusive of 101, 102, and 103. A 48-hour major is available in either college. At least one English and one history course numbered 300 or above should supplement the language major.

A minor consists of 24 hours of the language, exclusive of 101, 102, and 103. 101 and 102 will not be counted as electives toward graduation for any student unless 103 is also completed.

Reference is made here to two scholarships made available to students of this University by the Benjamin Franklin School, located in Lima, Peru. These scholarships pay tuition and fees for nine months at San Marcos University; room and board in the Benjamin Franklin School; opportunity to earn spending money during free time; and, assistance in learning Spanish as a foreign language. Applicants will need to finance their own round trip transportation and participate in the English program of student teaching in the Benjamin Franklin School. Interested applicants should contact Professor J. Cary Davis of the Foreign Languages Department.

FOREIGN LANGUAGE COURSES

- 140-2. *Latin and Greek Element in English I*. Presentation in English contexts of Greek and Latin roots basic in modern technical and scientific vocabulary. No knowledge of the ancient languages required.
- 240-2. *Latin and Greek Element in English II*. Similar to 140 but more advanced and introducing medical terms.
- 435-4 to 8. *Workshop in Elementary School Foreign Language Instruction*. Designed to assist elementary school teachers in integrating foreign languages into their teaching program as well as to encourage high school teachers to introduce or supervise foreign languages at the elementary level. Prereq, basic language credit. To count as foreign language or education.

FRENCH COURSES

- 101, 102, 103-3. *Elementary Course*. 101 open to students who have had no previous work in French. Prereq for 102; 101, or one year of high-school French.
- 101c, 102c, 103c-1. *French Conversation*. Courses in conversation and oral drill taken with 101, 102, 103, by students who wish additional oral training; elected only by students enrolled in the corresponding beginning sections.
- 151, 152, 153-3. *Intermediate Composition and Reading*. Grammar; composition; oral practice; rapid reading of modern authors. Prereq, 103, or two years of high-school French.
- 201, 202, 203-4. *Survey of French Literature*. A study of the important currents of French literature from the beginning to the present time. One hour each week devoted to French composition. Prereq, 153.
- 220-2 to 6. *French Conversation*. Conversation based largely on topics of

- current interest chosen from French newspapers and reviews. Prereq, 151, or three years of high-school French.
- 301-3. *The French Novel of the Eighteenth and Nineteenth Centuries*. Lectures, collateral reading, and reports. Prereq, 203.
- 302-3. *Seventeenth and Eighteenth-Century Drama*. Intensive study of Corneille, Racine, Moliere, Lesage, Voltaire, Marivaux, and Beaumarchais. Outside reading of minor dramatists. Prereq, 203.
- 303-3. *French Lyric Poetry*. French versification; Romantic, Parnassian, and Symbolist schools; contemporary poets. Prereq, 203.
- 304-3. *French Contemporary Novel*. Study of the novel from 1889 to the present, with emphasis on the symbolistic, regional, psychological, and sociological novels. Detailed study of Proust or Gide. Prereq, 203.
- 305-3. *French Contemporary Drama*. Study of French Drama from Dumas fils to the present, with emphasis on the *piece a these*, the *theatre libre*, symbolistic drama, and the drama of modern social problems. Prereq, 203.
- 340-2. *French Literature of the Sixteenth Century*. Rabelais, Montaigne, the memoir writers, Marot, the Pleiade, and d'Aubigny. Prereq, 203.
- 351-4. *Advanced Composition*. Rapid grammar review, study of idiomatic construction; weekly themes. Course conducted in French. Prereq, 203.
- 352-5. *French Conversation and Phonetics*. A thorough study of the phonetic alphabet and of the formation of French sounds. Course conducted in French. Prereq, 203.
- 353-4. *Advanced Composition and Conversation*. Oral and written composition of a practical nature for advanced students; intensive study of idiomatic expression and current usage. Prereq, 351 and 352.
- 440-2. *French Poetry of the Renaissance*. A study of the development of French poetry from 1550 to 1600.

(See page 307 for French courses on the 500 level.)

GERMAN COURSES

- 101, 102, 103-3. *Elementary Course*. 101 open to students who have had no previous work in German; 102 open to those who have had 101, or one year of high-school German.
- 101c, 102c, 103c-1. *German Conversation*. Courses in conversation and oral drill taken with 101, 102, 103, by students who wish additional oral training; elected only by students enrolled in the corresponding beginning sections.
- 151, 152, 153-3. *Intermediate Course*. Grammar review and expansion; reading in modern prose; conversation and composition. Two periods a week devoted to literature, and one to grammar and composition. Prereq, 103, or two years of high-school German.
- 201, 202-4. *Introduction to German Classical Literature*. Lessing, Goethe, Schiller. Reading and discussion of representative works.
- 203-4. *German Drama in the Nineteenth Century*. Kleist, Grillparzer, Hebel. Reading and discussion of representative works.
- 220-2 to 6. *Advanced German Conversation*. Conversation based on topics

- of current interest; extensive use of German newspapers, periodicals, and records. Admission by permission of the instructor.
- 251-4. *Scientific German*. Study of vocabulary and sentence construction as commonly found in German scientific writings. Prereq, 152 or equivalent.
- 301, 302-4. *Survey of German Literature to 1800*. The historical development of German literature; lectures; reading of representative authors.
- 303-4. *German "Novelle" in the Nineteenth Century*. A study of representative work from 1800 to 1900, with emphasis on the literary movements of that time.
- 304-5. *Kulturgeschichtliche Aufsätze und Sprechübungen*. Advanced composition and conversation based on the history of German civilization. Required for prospective teachers of German.
- 401-2. *Goethe's Faust, Part I*. The Faust legend and early Faust books and plays; the genesis of Goethe's Faust; reading of Part I.
- 402-2. *Goethe's Faust, Part II*. Reading of Part II; study of symbolisms, such as blending in Part II of paganism with Christianity, ancient Greek culture with Germanic culture, Helen's Classicism with Faust's Romanticism, etc.
- 403-3. *German Ballads and Lyrics*. A selective study of the foremost examples of German balladry and lyric poetry, ranging from the poetry of Klopstock and Burger to that of Rilke and Werfel.
- 411-3. *Middle High German I*. Study of the grammar and selective readings in such national epic poems of the Middle High German Period as the *Nibelungen Lied* and *Gudrun*.
- 412-3. *Middle High German II*. Study of the courtly epic poetry of such representative authors as Wolfram von Eschenbach, Gottfried von Strassburg, Hartmann von Aue, and the lyric poetry of Walter von der Vogelweide.

(See page 307 for German courses on the 500 level.)

GREEK COURSES

- 101, 102, 103-4. *Elementary Course*. Grammar emphasized in the first quarter, and reading of an actual text begun in the second. The text selected, usually the New Testament.
- 151, 152, 153-4. *Intermediate Course*. Readings from Plato; grammar review and composition. Prereq, 103.
- 201, 202-4. *Introduction to Homer*. Reading and interpretation of selections from the Iliad and Odyssey.
- 203-4. *Introduction to Greek Tragedy*. Reading of at least two plays from the works of Aeschylus, Sophocles, and Euripides.
- 301-4. *Introduction to Greek History*. Reading and discussion of selections from the histories of Herodotus and Thucydides.
- 302-4. *Plato*. Reading and discussion of the *Republic*.
- 303-4. *Aristotle*. Reading and discussion of the *Ethics*.
- 320-3. *Survey of Greek Literature*. Discussion of Greek literary works and their influence on later literature. No knowledge of Greek required.
- 330-3. *Classical Mythology*. Study of the classical myths and their literary value. No knowledge of Greek or Latin required.

LATIN COURSES

- 101, 102, 103-3. *Elementary Course*. 101 open to students who have had no previous work in Latin. Prereq for 102: 101, or one year of high school Latin.
- 151-4. *Intermediate Composition*. Useful for teachers and a convenient review for students. Prereq, 103, or two years of high school Latin.
- 152-4. *Cicero's Essays*. De Senectute and part of De Amicitia. Prereq as for 151.
- 153-4. *Livy. Books I and XXI*. Prereq as for 151.
- 201-4. *Phormio of Terence*. Prereq, 153, or equivalent.
- 202-4. *Horace's Odes and Epodes*. Prereq, 153, or equivalent.
- 203-4. *Letters of Pliny*. Prereq, 153, or equivalent.
- 226-4. *Ovid's Metamorphoses*.
- 301-4. *Cicero's Letters*. Emphasis laid upon the history of the times and the personality of Cicero. Prereq, 203, or equivalent.
- 302-4. *Vergil's Eclogues and Georgics*. Hexameter carefully studied; Vergil's spirit and contribution to Rome considered. Prereq as for 301.
- 303-4. *Tacitus*. The Agricola and Germania. Prereq as for 301.
- 304-2. *Private Life of the Romans*. A course comprising a personal study of the average family; housing, food, and clothing; marriage, education, amusements, slaves, and freedom; means of livelihood; death and burial. Open to all students whether they have had Latin or not.
- 320-3. *Latin Literature in Translation*. Discussion of Latin literary works and their influence on later literature. No knowledge of Latin required.

The following courses are given in the summer; the selection being rotated to suit the needs of the students:

- 335-4. *Vergil's Aeneid*. Books VII-XII.
- 342-4. *Advanced Composition*. A careful study based on classic prose-writers.

PORTUGUESE COURSES

- 100-5. *Introductory Course*. Especially for Spanish majors and minors; open to students who have completed Spanish 153, and to others by consent of the instructor.

RUSSIAN COURSES

- 101, 102, 103-3. *Elementary Course*. Pronunciation; reading of elementary texts; oral practice; composition.
- 101c, 102c, 103c-1. *Russian Conversation*. Courses in conversation and oral drill, taken by students of 101, 102, 103 for additional practice; elected only by students enrolled in the corresponding beginning sections.
- 151, 152, 153-3. *Intermediate Course*. Reading of classical and modern narrative prose; oral practice and sight reading; advanced composition. Prereq, 103.
- 201, 202-4. *Introduction to Russian Classical Literature*. Short stories of Gogol, Pushkin, Turgenev, Tolstoy, etc.

- 203-4. *Russian Drama in the Nineteenth Century*. Griboyedov, Gogol, Pushkin, and minor dramatists.
- 220-2 to 6. *Russian Conversation*. Advanced conversation based on topics of current interest. Prereq, 103.
- 251-4. *Scientific Russian*. Study of vocabulary and sentence constructions as found in Russian readings on popular sciences. Prereq, 103.
- 301, 302-4. *The Russian Novel in the Nineteenth Century*.

SPANISH COURSES

- 101, 102, 103-3. *Elementary Course*. 101 open to students who have had no previous work in Spanish. Prereq for 102: 101, or one year of high-school Spanish.
- 101c, 102c, 103c-1. *Spanish Conversation*. Courses in conversation and oral drill to be taken with 101, 102, or 103, by students who wish additional oral training; elected only by students enrolled in the corresponding beginning sections.
- 151, 152, 153-3. *Intermediate Composition and Reading*. Grammar review, composition, oral practice, rapid reading of modern authors. Prereq, 103, or two years of high-school Spanish.
- 201, 202, 203-4. *Survey of Spanish Literature*. A survey, continuing down to the present day. Lectures and reading of representative authors. Composition one day a week. Prereq, 153.
- 220-2 to 6. *Spanish Conversation*. Conversation based on topics of current interest; extensive use of records for comparison and imitation.
- 301-3. *Spanish Novel of the Nineteenth and Twentieth Centuries*. Study of representative novels and authors from the Regionalists to the present time. Prereq, 203.
- 302-3. *Spanish Drama of the Eighteenth and Nineteenth Centuries*. Reading of selected plays of the chief dramatists from Moratin to the generation of 1898. Prereq, 203.
- 315-3. *Arte y Cultura*. Conducted in Spanish. Informal class discussions of reports of students on present day topics relating to the life and interests of Latin America and Spain; extensive use of films. Prereq, 220, or consent of instructor.
- 333-3. *Spanish American Literature*. Survey of Spanish literature in America from the conquest to modern times. Required of Spanish majors. Prereq, 203, or consent of instructor.
- 340-3. *The Golden Age (The Dramatists)*. Extensive individual reading of the plays of Lope de Vega, Calderon, Tirso, Ruiz de Alarcon, and others, with class reports and intensive study of some one dramatist. Prereq, 203, or consent of instructor.
- 345-4. *Cervantes*. Study of the life of the author and the *Quijote* with reference to style and source of materials. Comparative reports on the *novelas* and other works. Prereq, 203, or consent of the instructor.
- 351-3. *Advanced Composition*. Daily themes based on Spanish models, with free composition once a week. Class discussions. Prereq, 203.
- 360-8. *Study-Tour of Mexico*. Two weeks of lectures and intensive conversational drill on campus; four weeks in Mexico. Series of lectures by Mexican teachers during residence in Mexico City and on ex-

cursions in the country. Final week on campus for completion of individual projects and reports. Prereq, advanced standing in Spanish.

- 415-3. *Spanish Phonetics*. Analysis of the sounds of Spanish, their manner of production, and special drill in connected passages of prose and poetry.

(See page 308 for Spanish courses on the 500 level.)

ROMANCE PHILOLOGY

- 410-4. *Romance Philology I*. A survey of the phonology, morphology, and syntax changes in Romance languages in general; special attention to developments in French and Spanish for majors in these fields.

(See page 309 for Romance Philology courses on the 500 level.)

GEOGRAPHY

PROFESSOR FLOYD F. CUNNINGHAM, PH.D. (CLARK), CHAIRMAN	1947
ASSOCIATE PROFESSOR OLIVER W. BEIMFOHR, PH.D. (OHIO STATE)	1949
ASSOCIATE PROFESSOR FLEMING W. COX, A.M. (ILLINOIS), EMERITUS (1945)	1929
ASSOCIATE PROFESSOR ROBERT A. HARPER, PH.D. (CHICAGO)	1950
ASSOCIATE PROFESSOR ANNEMARIE KRAUSE, PH.D. (CHICAGO)	1930
ASSOCIATE PROFESSOR DALIAS A. PRICE, PH.D. (WISCONSIN)	1947
ASSOCIATE PROFESSOR MARJORIE SHANK, A.M. (CLARK)	1923
INSTRUCTOR JOHN HOPKINS, M.A. (OBERLIN)	1955
LECTURER RICHARD E. DAHLBERG, M.A. (NORTH CAROLINA)	1955-56

A student may take his work in the field of geography in either the College of Education or the College of Liberal Arts and Sciences, depending upon his objective:

1. In the College of Education, for preparation to teach geography in the elementary or secondary schools, or (with further preparation) in the junior college; or as a part of preparation to teach either social science or physical science in the elementary or secondary schools.
2. In the College of Liberal Arts and Sciences, for a thorough knowledge of geography, in preparation for civil service appointment as geographer, or for demands of private organizations requiring the services of geographers.

In the College of Liberal Arts and Sciences, the student majoring in geography needs to present a minor in another field. Forty-two hours of geography are required for a major; twenty-four hours are required for a minor.

In the College of Education, forty-eight hours of geography are required for a major if the student offers only one minor; only forty-two hours are required for a major if he offers two minors. Twenty-four hours are required for a minor.

One year of foreign language will be required of all geography majors.

Persons who expect to teach in the elementary school are urged to take at least a minor in geography, which must include Geography 100 and 101.

Those expecting to teach high school commercial or economic geography

with a medium preparation must have twelve quarter hours of college geography. Students should meet this requirement by taking 100, 210, 324, and 405.

Those expecting to teach high school physical geography with a medium preparation must have eighteen quarter hours in college physical geography. Students should meet this requirement by taking 101, 212, 310, and any other physical geography subjects. (See list below.)

Classification of geography courses:

Physical: 101, 212, 310, 311, 312, 324, 416, 424, 430

Social: 100, 210, 211, 319, 324, 345, 402, 404, 405, 410, 425, 460

State, Regional, or Continental: 313, 314, 315, 316, 318, 321, 402, 412, 420, 450.

Educational: 341, 342.

Geography 100, 101, 210, 212, 310, 312 and 314 are required of all geography majors.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Geography: 100, 101, 210, 212, 310, 312, 314.

Additional courses recommended for a major in Geography: 324, 416.

Recommended electives: Agric. 114, 202, 303, 305, 322, 360, 361; Bot. 350, 450; Bus. Admin. 331; Econ. 317, 328, 360; Geol. 220, 221, 222, 331, 430; Govt. 370, 480; Soc. 311, 314, 316, 325; Zool. 310.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Geography: 100, 101, 210, 212, 310, 312, 314, 324.

Additional courses recommended for a major in Geography: 341, 342, 416.

Recommended electives: Agric. 114, 202, 303, 305, 322, 360, 361; Bot. 350, 450; Bus. Admin. 331; Econ. 317, 328, 360; Geol. 220, 221, 222, 331, 430; Govt. 370, 480; Soc. 311, 314, 316, 325; Zool. 310.

100-5. *Global Geography*. A world regional survey in which significant differences from place to place are observed and analyzed. Basic factors of population distribution core of the course. Tracing of development of man's working connections with the land and its resources. Satisfies social studies requirement for the bachelor's degree in all colleges of the University.

101-5. *Physical Geography*. A study of the earth's physical surface, the areal differences and relationships of its landforms, water resources, soils, and natural vegetation, and economic minerals. World distribution patterns of physical elements, their relationships to each other, and their importance to man. Special attention given to Southern Illinois. Meets needs of prospective teachers of nature

- study, natural, social, and general sciences. One major field trip. Mr. Price. Prereq, 100.
- 210-4. *Economic Geography*. A study of the economic production types or occupations such as grazing, farming, fishing, lumbering, mining, manufacturing, and transportation. Miss Krause. Prereq, 100.
- 211-5. *Economic Geography*. A course designed to show the relationship between physical environment and economic life of people. Emphasis on economic-geographic factors of world distribution of resources, methods of production and transportation of the important commodities of industry and commerce. Open only to students majoring in business administration and economics. Mr. Beimfohr and Mr. Hopkins.
- 212-3. *Fundamentals of Maps and Air Photos*. (Same as Geology 212.) Properties of maps and air photographs, their use and sources. Units on the use and interpretation of air photos, map symbols, and map projections. Lab. Mr. Dahlberg.
- 310-4. *Meteorology*. Study of weather, the factors and conditions influencing it, its importance to man. Emphasis placed upon agriculture, aviation, business, industry, and everyday understanding of weather. Most recent findings in weather science studied. Of value to persons interested in weather bureau service. Mr. Price. Prereq, 100.
- 311-4. *Geography of Soils*. The nature, source, and origin of soil material; soil development and soil use. Geographic distribution and significance of soil as an element of the environment. Mr. Beimfohr. Prereq, 100, 101, or permission of instructor.
- 312-4. *Climates of the Continents*. Principles of climatology; physical bases for the differentiation of climatic types; description and interpretation of climatic regions. Mr. Cunningham. Prereq, 100, 310, or permission of the instructor.
- 313-3. *Geography of Illinois*. Acquaints the student with the regional concepts of our state, the distribution of climate, vegetation, soils, landforms, and mineral resources; interrelates agriculture, manufacturing, industry, and population distribution, interpreted within a regional framework. Mr. Price. Prereq, 100.
- 314-4. *Geography of Anglo-America*. A systematic regional treatment of North America, north of Mexico. An introduction to regional study in geography. Mr. Harper. Prereq, 100, 101, 210, or permission of instructor.
- 315-4. *Geography of Europe*. An intensive study of regions, with stress on their description, interpretation and utilization. Emphasis on interdependence of political units. Mr. Cunningham and Miss Shank. Prereq, 100.
- 316-4. *Geography of South America*. A study of the regions and resources of the South American countries as they relate to national and international problems. Miss Krause. Prereq, 100, or permission of instructor.
- 318-4. *Geography of Asia*. Study of the countries of Asia, except the Asiatic portion of the U.S.S.R., emphasizing the relationship between the problems of the population and the resource base. Mr. Harper. Prereq, 100, 101, 210, or permission of instructor.

- 319-4. *Historical Geography of the United States*. Study of elements of the geographic environment that have been important in discovery, exploration, settlement and development of the United States. Mr. Cunningham. Prereq, 100, or permission of the instructor.
- 321-2. *Geography of Australia*. A study of the only continent which lies far beyond the periphery of the land hemisphere; its unusual climatic and economic conditions; its importance in the British Empire; and its vital place in the economic and political life of the Pacific. Mr. Cunningham. Prereq, 100.
- 324-4. *Restoration and Conservation of Natural Resources*. Survey of major resources of United States with stress on problems of conservation and restoration. Emphasis on water, mineral, forest, grass, soil, wildlife, scenic, and recreational resources. Field trips. Mr. Cunningham and Miss Shank. Prereq, 100, or permission of the instructor.
- 341-4. *Teaching of Geography in the Elementary School*. Presentation and evaluation of methods of teaching geography in the elementary grades. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Miss Krause. Prereq, 100.
- 342-4. *Teaching of Geography in the Junior and Senior High Schools*. Presentation and evaluation of methods of teaching geography in the junior and senior high schools. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Miss Krause. Prereq, 100.
- 345-4. *Political Geography*. An examination of the world political pattern that is superimposed on the physical earth. Particular attention to world powers and "trouble spots." Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.
- 402-4. *The Soviet Union*. A study of the U.S.S.R. based on both a systematic and a regional approach. Appraisal of the natural-resource base of Russia as well as an estimate of her industrial and agricultural strength. Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.
- 404-4. *Advanced Economic Geography I—Agricultural*. A functional study of the bases, interrelationships, and geographic distribution of agricultural production. Mr. Price. Prereq, 100, 101, 210, or permission of the instructor.
- 405-4. *Advanced Economic Geography II—Industrial*. A functional study of the bases, interrelationships, and geographic distribution of industries. Mr. Beinfohr. Prereq, 100, 101, 210, or permission of the instructor.
- 406-4. *Trade and Transportation*. Study of the pattern of modern transport networks and trade routes. Consideration of the importance of trade and transportation as geographic factors. Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.
- 411-4. *Urban Geography*. The urban population: environment, development, and distribution. Geographic factors related to the origin, structure, and functions of urban centers. Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.

- 413-3 to 4. *Geography of the Caribbean Lands*. A regional approach to the study of the lands bordering the Caribbean. Appraisal of the natural-resource base of the various countries. Mr. Cunningham. Prereq, 100.
- 416-4. *Cartography*. Instruction and practice in the basic techniques of map making; consideration and solution of problems involved in the construction of maps; problems in map reproduction. Mr. Dahlberg. Prereq, 100.
- 420-4. *Geography of Africa*. A regional approach to the study of the continent. Patterns of climate, soils, minerals, vegetation, and relative location to be woven together with the aricultural, economic, and industrial features into the regional framework of Africa. Mr. Hopkins. Prereq, 100.
- 424-4. *Regional Problems in Conservation*. The distribution, use, and inter-relationship of the resources in the various resource management regions of the United States, the conservation techniques applied to them, and the problems of public policy in their effective management. Mr. Cunningham. Prereq, 100 and 324, or equivalent courses.
- 430-4. *Physiographic Provinces of North America*. (Same as Geology 430.) A course designed to give the student an appreciation of the evolution of land forms in the physiographic provinces of North America; to explain the surface features in a landscape; and to interpret the human drama related thereto. Mr. Harris. Prereq, 100 and 101, or Geol. 220 or 331.
- 440-2 to 4. *Readings in Geography*. Supervised readings in selected subjects. Hours and credit to be arranged. Prereq, 100, 101, 210, and advanced standing.
- 450-3 to 15. *Regional Field Courses*. Courses designed to give students first-hand knowledge of various areas of the world. Prior to departure from campus intensive supervised study and/or readings made of region to be visited. Written report of trip due within six weeks after completion of field study. Prereq, 100, 101, 210.
- 460-2. *Current Geographical Journals*. Course designed to acquaint students with the leading journals in the field of geography. Each student enrolled in course to report content of certain recent or current issues. Mr. Cunningham and Mr. Harper. Prereq, minimum of 14 hours of geography.

(See page 309 for Geography courses on the 500 level.)

GEOLOGY

ASSOCIATE PROFESSOR STANLEY E. HARRIS, JR., PH.D. (IOWA), ACTING CHAIRMAN	1949
INSTRUCTOR DEWEY H. AMOS, M.A. (ILLINOIS)	1955
INSTRUCTOR JULES R. DUBAR, M.S. (OREGON STATE)	1951-53; 1954
VISITING PROFESSOR ARTHUR C. TROWBRIDGE, PH.D. (CHICAGO)	1956

A major in geology is offered in the College of Liberal Arts and Sciences. A minimum of 50 hours for a major and 24 hours for a minor is required, including 100, 220, 221, 222.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Geology: 200, 212, 220, 221, 222, 302, 310, 350, 405; Chem. 111, 112, 113; Math. 111, 112, 113; Physics 206; Eng. 390.

Additional courses recommended for a major in Geology (General): 410, 415, 425, 426, 427, 430, 431; Zoology 100.

Additional courses recommended for a major in Geology (Stratigraphy): 410, 425, 426, 427; Zoology 100, 105.

Additional courses recommended for a major in Geology (Petrology and Economic Geology): 315, 320, 410, 415; Econ. 205; Chem. 221.

Additional courses recommended for a major in Geology (Petroleum): 410.

Recommended electives: Geology electives; Physics 207, 208; Ind. Educ. 101; Math. 120.

An understanding of geology requires a knowledge of the basic sciences. Thus at least a year's sequence of chemistry and mathematics and at least one term of physics and biology are strongly recommended; additional work in one or more of these fields will be necessary to support specialties such as mineralogy, petrology, economic geology, geophysics, and paleontology. A summer field course in geology should be taken between the junior and senior years. Preparation for a professional career usually requires graduate work.

- 100 (201)-4. *Principles of Geology*. A study of earth materials, geologic processes and earth history. Stress upon the common rocks and minerals, erosional and depositional processes, volcanism, and formation of mountains; development of life forms, and the changing face of the earth; application to understanding the landscape, the search for oil and mineral resources, engineering construction. Laboratory.
- 212-3. *Fundamentals of Maps and Air Photos*. (Same as Geography 212.) A study of the sources and uses of military and civilian maps, charts, graphs, and air photographs. Laboratory and field work required. Mr. Dahlberg. Prereq, Geog. 100.
- 220-5. *Physical Geology*. A study of the principal minerals and rocks of the earth's crust, emphasizing origin and identification; the physical processes active in producing the surface features of the earth. Laboratory and field trips required. Mr. DuBar.
- 221-5. *Historical Geology*. Presenting in chronological order the procession of physical and biotic changes through which the earth has passed. Including the physical history of the earth and evolution of life forms as evidenced by fossil records. Laboratory. Mr. Harris. Prereq, 100, or permission of instructor. An elementary course in zoology or botany also recommended.
- 222-5. *Minerals and Rocks*. A course designed to acquaint the student with the common rock-making minerals and the principal rocks of the earth's crust; some important economic minerals also studied.

- Laboratory and class work concerning identification and principles of origin. Mr. Amos. Prereq, 220.
- 302-4. *Structural Geology*. A study of the forces involved in the deformation of the earth's crust, with special emphasis on the recognition, interpretation, and illustration of the resultant geologic structures. Laboratory. Mr. Amos. Prereq, 220, 221, or their equivalents.
- 310-4. *Mineralogy*. A study of physical and chemical properties aiding in the recognition and identification of minerals. Laboratory. Mr. Amos. Prereq, 222.
- 315-4. *Petrology*. Characteristics of common rocks, their origin and geologic distribution. Laboratory. Mr. Amos. Prereq, 222.
- 320-4. *Economic Geology*. Study of the world's larger mining districts and the economic and political importance of their geological resources. Mr. Amos. Prereq, 200 or Geog. 101, or consent of instructor.
- 350-9. *Field Geology*. A field mapping course including problems in stratigraphy, structure, paleontology, physiography, and economic geology. Requiring a written geologic report. Consult departmental office for dates, cost, and equipment needed. Mr. DuBar. Prereq, 302.
- 401-4. *Advanced General Geology*. A course dealing with certain broader problems of geology; earthquakes, volcanism, submarine canyons, coral islands, mountain building. Laboratory. Mr. Harris. Prereq, 220, 302.
- 405-4. *Geologic Map and Air Photos Interpretation*. Interpretation and use of air photos in geologic mapping; interpretation and construction of geologic maps, such as areal, structure, isopach, paleogeologic. Laboratory. Mr. Harris. Prereq, 212, 302.
- 410-4. *Stratigraphy and Sedimentation*. The characteristic features of sedimentary rocks and their processes of origin; the classification of stratigraphic units, methods of correlation, and paleogeologic reconstructions. Laboratory. Mr. Harris. Prereq, 220, 221.
- 411-4. *Stratigraphy*.
- 415-4. *Optical Mineralogy*. Study of the optical properties of minerals and the use of the petrographic microscope for identification by the immersion method and by thin section. Laboratory. Mr. Amos. Prereq, 310; Physics 108.
- 425 (325)-4. *Paleontology I; Systematic Invertebrate*. Major invertebrate phyla (Protozoa, Porifera, Coelenterata, Echinoderma, Bryozoa, Brachiopoda); their morphology, classification and stratigraphic succession. Laboratory. Mr. DuBar. Prereq, 220, 221; Zool. 100.
- 426 (326)-4. *Paleontology II; Systematic Invertebrate*. A continuation of Paleontology I, Mollusca and Arthropoda. Laboratory. Mr. DuBar. Prereq, 425.
- 427 (327)-3 to 5. *Paleontology III; Field and Laboratory Techniques*. Methods of field collecting, preparation, and preservation of specimens, techniques of identification and description; and survey of available literature. An original report based on independent field and laboratory work required of each student. Laboratory. Mr. DuBar. Prereq, 220, 221.

- 430-4. *Physiographic Provinces of North America*. (Same as Geog. 430.) A course designed to give the student an intelligent appreciation of the evolution of land forms in the physiographic provinces of North America; to explain the surface features in a landscape; and to interpret the human drama related thereto. Mr. Harris. Prereq, 220, or 331, or Geog. 101.
- 431 (331)-4. *Geomorphology*. A course concerning the origin of our land forms, intended to show relationship of land forms to interplay of diastrophism; volcanism; rock structure and composition; and processes of weathering and erosion. Mr. Harris. Prereq, 220 or Geog. 101.
- 435-4. *Coal and Oil*. A brief survey of our two most important fuels. A study of methods of exploration and extraction; nature, manner of occurrence; and geologic and geographic distribution. Mr. Harris. Prereq, 220 or Geog. 100.
- 440-1 to 4. *Independent Study*. Prereq, 220, 221, 222, and advanced standing.

(See page 310 for Geology courses on the 500 level.)

GOVERNMENT

PROFESSOR ORVILLE ALEXANDER, PH.D. (IOWA), CHAIRMAN	1938
PROFESSOR FRANK L. KLINGBERG, PH.D. (CHICAGO)	1946
PROFESSOR WILLIS G. SWARTZ, PH.D. (IOWA)	1930
PROFESSOR MAX WESLEY TURNER, PH.D. (IOWA)	1947
ASSOCIATE PROFESSOR DAVID T. KENNEY, PH.D. (ILLINOIS)	1951
ASSOCIATE PROFESSOR ROBERT McGRATH, PH.D. (IOWA)	1949
ASSOCIATE PROFESSOR WARD M. MORTON, PH.D. (TEXAS)	1949
ASSOCIATE PROFESSOR HAROLD W. WARD, PH.D. (VIRGINIA)	1955
ASSOCIATE PROFESSOR WILLIAM O. WINTER, PH.D. (MICHIGAN)	1950
ASSISTANT PROFESSOR JAMES D. KITCHEN, PH.D. (UNIVERSITY OF CALIFORNIA AT LOS ANGELES)	1955
ASSISTANT PROFESSOR RANDALL NELSON, PH.D. (MICHIGAN)	1955
ASSISTANT PROFESSOR JULIUS PAUL, PH.D. (OHIO STATE)	1955
ASSISTANT PROFESSOR JOHN S. RENDLEMAN, J.D. (ILLINOIS)	1950; 1951
ASSISTANT PROFESSOR MARIAN ELIZABETH RIDGEWAY, PH.D. (ILLINOIS)	1952
ASSISTANT PROFESSOR MAX SAPPENFIELD, PH.D. (ILLINOIS)	1954
ASSISTANT PROFESSOR JOHN J. WUEST, PH.D. (SOUTHERN CALIFORNIA)	1956
VISITING PROFESSOR HARVEY B. WALKER, PH.D. (MINNESOTA)	1956
LECTURER JOHN A. BOND, A.M. (CHICAGO)	1954-56
LECTURER EMIL ZASLAWSKI, LL.D. (PARIS)	1955-56

An undergraduate major for a student in the College of Education consists of thirty-six quarter hours; for a student in the College of Liberal Arts and Sciences, forty-two quarter hours. For a minor, twenty-four quarter hours are required in both colleges.

A major or minor is recommended for those wishing to teach civics or government courses, and for those wishing to qualify for the study of law or for public service.

Students majoring in government are urged to take as much work as

possible in other social science departments, with at least one minor in a related field.

Students planning to take graduate work in government beyond the master's degree should acquire a reading knowledge of both French and German.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Recommended courses constituting a major in Government (there are no absolutely required courses): 101, 102, 103, 231, 232, 305, 315, 360, 380, 390, 395, 420, 435, 436, 440, 466, 467, 497, 499.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Recommended courses constituting a major in Government (there are no absolutely required courses): 101, 102, 103, 231, 232, 305, 340, 360, 370, 380, 385, 390, 391, 392, 466, 467, 475, 499.

Recommended courses constituting a major in Government with specialization in International Affairs: 101, 102, 103, 231, 232, 370, 390, 391, 392, 472, 475, 499.

Recommended courses constituting a major in Government with specialization in Public Administration: 101, 102, 103, 231, 232, 305, 315, 340, 360, 380, 395, 420, 435, 436, 440, 466, 467, 497, 499.

- 101-5. *Problems of American Democracy I*. A general survey of government including national and state constitutional principles as required by Illinois Law. Meets the social science and American Government requirements.
- 102-3. *Problems of American Democracy II*. A continuation of 101, with emphasis on governmental functions and services. Prereq, 101.
- 103-2. *Problems of American Democracy III*. To be taken either separately or in conjunction with 102. An introduction to American foreign policy and international relations. Prereq, 101, or consent of the instructor.
- 231-5. *American National Government*. A survey covering the structure, functions, and principles of national government. Also meets social science and American Government requirements.
- 232-5. *State and Local Government*. A survey of the structure and functions of American state and local government. Prereq, 231.
- 300-4. *American Government*. An advanced course to satisfy the American Government requirements of the College of Education. Deals with the structure and functions of national, state, and local government. Not open to those who have had 101 or 231.
- 305-5. *Development of the American Constitution*. The evolution of the United States constitutional system. Recommended for pre-law students. Prereq, 101 or 231.
- 315-3. *Administration of Justice*. The organization and work of the Ameri-

- can judicial system. Recommended for pre-law students. Prereq, 101 or 232.
- 330-2. *Illinois Government*. The development and functioning of government in Illinois. Prereq, 101 or 231.
- 340-3. *The Legislative Process*. A study of the principles, organization, and work of American legislative bodies. Prereq, 101 or 231.
- 360-5. *Public Administration*. Principles and problems of administration on the national, state, and local level. Prereq, 101 or 231.
- 370-4. *International Relations*. A study of world politics—the causes of international conflict and the conditions of peace. Prereq, 101 or 103.
- 380-3. *Political Parties*. The development and work of American political parties. Prereq, 101 or 231.
- 385-3. *Contemporary Political "Isms."* An advanced survey of recent political systems: Socialism, Communism, Pluralism, Fascism, Nationalism. Prereq, 101 or 231.
- 390-3. *Comparative Government (Democracies)*. A comparative study of the political systems of European democracies, such as England, France, and Switzerland. Prereq, 101 or 231.
- 391-3. *Comparative Government (Dictatorships)*. A comparative study of the political systems of European dictatorships: Nazi Germany, Fascist Italy, Soviet Russia, Falangist Spain. Prereq, 101 or 231.
- 392-3. *Comparative Government (Latin American)*. A comparative study of the political systems of Latin American republics, with special attention given to Mexico and Argentina. Prereq, 101 or 231.
- 395-4. *Constitutional Law*. A study of leading American constitutional principles, as illustrated by important decisions of the United States Supreme Court. Prereq, 231.
- 420-3. *Pressure Groups and Politics*. An analysis of interest groups and their techniques of political propaganda. Prereq, 101 or 231.
- 421-1 to 5. *Readings in Government*. Consent of instructor required.
- 435-3. *Government and Business*. An historical study, with contemporary emphasis upon relations between government and economic institutions. Prereq, 395, or consent of instructor.
- 436-3. *Government and Labor*. (Same as Economics 436.) A study of labor relations and legislation considering both constitutional and economic aspects. Prereq, 101, 231, or 300 and Econ. 205; or consent of instructor.
- 440-3. *Public Personnel Management*. A survey of the methods and functions of modern public personnel administration. Prereq, 360.
- 441-4. *Philosophy of Politics*. Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relations of economics and social studies to political theory. Prereq, Phil. 140 or 340, or consent of the instructor.
- 466-3. *State Government and Administration*. A study of the leading problems of government and administration of American states. Prereq, 232.
- 467-3. *Municipal Government and Administration*. A study of the development and functioning of city government in the United States. Prereq, 232.

- 472-4. *International Government*. A study of the organization and development of international governmental and administrative systems, with emphasis on the United Nations. Prereq, 370.
- 475-4. *International Law*. A study of the rules and practices governing the nations in their relations in peace and war. Prereq, 370.
- 480-4. *The Pacific and the Far East*. A study of the political and strategic problems in this area. Prereq, 370 or Hist. 370.
- 487-4. *American Political Ideas*. An historical study of the political ideas of leading American statesmen and publicists, and their resulting influence upon our governmental system. Prereq, 305 or 385.
- 488-3. *Recent Political Theory I*. A study of the outstanding Anglo-American liberal political theorists from John Stuart Mill to the present. Prereq, 305 or 390.
- 489-3. *Recent Political Theory II*. A study of the outstanding "scientific" political theorists from Karl Marx to the present. Prereq, 385 or 391.
- 490-3. *Recent Political Theory III*. A study of the outstanding idealistic and nationalistic political theorists from Hegel to the present. Prereq, 385 or 391.
- 497-4. *Administrative Law*. A study of law as it affects public officials in carrying out the rights, duties, and necessary functions of the public office. Prereq, 360 or 395.
- 499-4. *Research Methods*. Practical training in research and writing techniques in the field of government. Bibliography materials, footnotes, use of law library facilities, and government documents.

(See page 311 for Government courses on the 500 level.)

HISTORY

UNIVERSITY PROFESSOR E. G. LENTZ, M.A. (ILLINOIS), EMERITUS (1950)	1914
PROFESSOR HAROLD E. BRIGGS, PH.D. (IOWA)	1945
ASSOCIATE PROFESSOR NORMAN W. CALDWELL, PH.D. (ILLINOIS)	1946
ASSOCIATE PROFESSOR GEORGE L. CHERRY, PH.D. (NORTHWESTERN)	1947
ASSOCIATE PROFESSOR WILLIAM A. PITKIN, PH.D. (TEXAS)	1945
ASSOCIATE PROFESSOR JOHN I. WRIGHT, A.M. (CHICAGO)	1925
ASSISTANT PROFESSOR HARRY AMMON, PH.D. (VIRGINIA)	1950
ASSISTANT PROFESSOR CHARLES J. PARDEE, A.M. (CHICAGO), EMERITUS (1951)	1929
LECTURER HENRY C. BOREN, PH.D. (ILLINOIS)	1955-56
LECTURER HERBERT H. ROSENTHAL, PH.D. (HARVARD)	1955-56

Students who intend to make history their major field should consult with the representative of the department at the time of registration. Courses on the 100 and 200 levels are designed for freshmen and sophomores and are prerequisite to the more advanced work. Forty-two quarter hours are required for a major in history in the College of Liberal Arts and Sciences. Thirty-six quarter hours are required for a major in the College of Education. At least half of the work of a history major must be on the 300 and 400 levels, and care should be taken to distribute the

work in the fields of American and European history. Twenty-four hours are required for a minor in history, and must include History 101, 102, 103, 201 and 202. Students wishing to use a history minor in the College of Education should take 12 hours each in the European and American fields.

Two terms of History 101, 102, 103 will meet the general education requirement except in the College of Education. Five hours of United States history are required for graduation in the College of Education. History 201 or 202 will meet this requirement.

Courses on the 400 level may be taken for graduate credit by properly qualified students, upon consent of the instructor.

A year of work in a foreign language is required of all history majors.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION
OR IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Education requirements: See page 103; or College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in History: 101, 102, 103, 201, 202, 451, 452, plus electives to equal required total.

Recommended electives: Work in Government and in the other social studies. Some work in Philosophy.

- 101-3, 102-3, 103-3. *Survey of World Civilization*. Courses designed primarily for freshmen, as a survey of the development and evolution of civilization; the foundation for further courses in the field of history. One term devoted to each of the periods: ancient, medieval, and modern. Required of all history majors.
- 201-5. *History of the United States to 1865*. Courses 201 and 202 designed to provide a general survey of the political, social, and economic development of the United States. Course 201 includes national and state constitutional principles as required by Illinois Law. Prereq, sophomore standing.
- 202-5. *History of the United States Since 1865*. A continuation of 201. Either 201 or 202 to count toward graduation requirements in the College of Education.
- 210-4, 211-4, 212-4. *History of Europe, 476-Present*. A comprehensive study of the principal social, economic, political and cultural developments from the fall of Rome to the present time. 210: 476-1400; 211: 1400-1815; 212: since 1815. Mr. Cherry. Prereq, freshman survey.
- 304-3. *History of the Ancient Near East*. A review of the political, economic, and religious history of Africa and Southwestern Asia from about 3000 B.C. to the time of Christ. Prereq, freshman survey.
- 305-3. *History of Greece*. A careful study of the cradle of civilization. In addition to the political and economic development of the Greeks, a consideration of their higher cultural development, as in philosophy, education, religion, art, and architecture.
- 306-3. *History of Rome, 509 B.C. to 500 A.D.* The political, economic, and social history of Rome, with particular emphasis upon Roman law,

- as well as upon the Roman development of Greek culture. The Roman world as a fertile soil for the spread of Christianity stressed.
- 308-3. *History of Illinois*. The history of the state from 1818 to the present. Recommended for history majors and those who expect to teach in elementary schools. Mr. Wright. Prereq, 201 and 202.
- 322-4, 323-4, 324-4. *Survey of English History*. An introductory study of the institutional and cultural development of the English people from the earliest times to the present day. 322: Celtic Britain to 1603; 323: 1603-1815; 324: since 1815. Mr. Cherry. Prereq, freshman survey.
- 330-3. *Middle Period of American History, 1789-1860*. A study of the conflicting sectional and nationalistic forces which characterize the period. Stress upon the economic and political forces leading to the Civil War. Prereq, 201 and 202.
- 352-3. *Hispanic America*. An introductory survey of Hispanic-American history, from the Spanish conquest to the present time. Emphasizes the colonial heritage, events and circumstances attending the wars of independence, and development of the modern republics.
- 370-3. *The Far East to 1912*. History of China, Japan, Central Asia, and the East Indies, with major emphasis on the social, political, and economic institutions of the area as they developed from earliest times. Prereq, freshman survey. Fall.
- 371-3. *The Far East Since 1912*. History of China, Japan, Central Asia, and the East Indies, with major emphasis on internal development of the area and on the interaction of these areas with the Western world. Prereq, 370. Winter.
- 372-4. *The History of Russia*. A survey of Russian history from earliest times to the present. Social, economic, and political conditions under the Czars and the Soviets. Prereq, proper background. Spring.
- 400-3. *Teacher's Workshop in Current History*. A series of lectures, readings, discussions, and projects designed to aid the teacher in understanding and interpreting some of the major problems of present day society. Mr. Pitkin.
- 401-3. *History of the South to 1860*. An intensive study of the social, economic, political, and cultural development of the "Old South" to the Civil War; distinctive culture and problems of the section. Mr. Ammon. Prereq, 201. Fall.
- 402-3. *History of the South Since 1860*. The Civil War, political and economic reconstruction, and problems of the "New South." Mr. Ammon. Prereq, 202 or 401.
- 405-3. *Civil War and Reconstruction*. Emphasis placed upon the clash of national and sectional interests, the economic and political as well as the military aspects of the conflict, and the course and consequences of reconstruction. Mr. Ammon. Prereq, 201 and 202. Spring.
- 410-2 to 5. *Special Readings in History*. Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand.

- 411-3, 412-3, 413-3. *Intellectual History of the United States*. The various types of economic, social, and political thought that have influenced the development of the nation. Mr. Briggs. Prereq, 201 and 202.
- 415-3. *The Age of the Renaissance*. A course beginning with the Italian phase of the Renaissance and following its spread to other sections of Europe. Mr. Caldwell. Prereq, freshman survey. Fall.
- 416-3. *The Protestant Reformation*. A survey of the religious, cultural, and economic forces which brought about the movement for reform, with special attention to the political effects of the division of Christendom and the economic implications of Protestantism. Mr. Caldwell. Prereq, freshman survey. Winter.
- 417-3. *Selected Topics in the History of the British Empire*. A survey of English expansion beyond the seas, with emphasis upon the influence of mercantilism, *laissez faire*, and state capitalism on pattern of control. Mr. Cherry. Prereq, 324. Fall.
- 418-3. *Selected Topics in English Constitutional History*. A study of the origin, growth, and continuous modification of the English political and legal institutions from earliest times to the present day. Mr. Cherry. Prereq, 324. Winter.
- 419-3. *Selected Topics in Seventeenth Century England*. A comprehensive treatment of the significant social, political, economic, and cultural trends in England during the seventeenth century. Mr. Cherry. Prereq, 324. Spring.
- 420-3. *The French Revolution*. The passing of feudalism in France and the development of the background of the revolutionary movement. Study carried through the revolutionary cycle, concluding with the fall of the Napoleonic Empire. Mr. Caldwell. Prereq, adequate background.
- 425-3. *American Colonial History*. The founding of the American colonies and the development of their institutions, through the Revolution. Mr. Caldwell. Prereq, 201. Spring.
- 428-4. *Age of Jackson*. A study of the origins, background, and development of that phase of American democracy associated with the Jacksonian era. The political, social, and economic history of the years 1824-1844 considered in detail. Mr. Ammon. Prereq, 201.
- 435-3, 436-3, 437-3. *Recent United States History, 1865-Present*. A sequence of courses covering major problems and trends from the Civil War to the present; any part taken separately. Mr. Pitkin. Prereq, 201 and 202.
- 440-3. *History of American Diplomacy to 1898*. A study of the important treaty relations of the United States, and a general consideration of American foreign policies.
- 441-3. *History of American Diplomacy Since 1898*. A continuation of History 440.
- 442-3, 443-3, 444-3. *History of the West*. A series of three courses that provide an intensive study of the influence of the frontier on the main trends in United States History. Students permitted to take one or all courses. Mr. Briggs. Prereq, 201 and 202.
- 449-4. *Europe and Her Expansion, 1870-1914*. Age of Imperialism, alli-

- ances and modern navies. Competition for natural resources and world markets. Impact of modern science upon western civilization. Mr. Pitkin. Prereq, 103 and 212, or proper background.
- 450 5. *The World Since 1914*. A brief review of the causes and results of World War I, League of Nations, war debts, disarmament, causes of second World War, conflict, and United Nations. Mr. Pitkin. Prereq, adequate background.
- 451-3. *Historiography*. The development of history as a written subject, including works and philosophy of various outstanding historians in the ancient, medieval, and modern periods. Required of all majors in history. Mr. Briggs. Prereq, senior standing. Fall.
- 452-3. *Historical Research and Thesis Writing*. The rules of historical research and their application to a definite topic. Required of all majors in history. Mr. Briggs. Prereq, senior standing. Winter and Spring.
- 453-3. *New Viewpoints in American History*. New interpretations and recent developments in field of American history. Mr. Briggs. Prereq, 201 and 202.
- 454-3. *Biography in American History*. A study of outstanding leaders and their contributions to the history of the United States. Attention to historical writers who specialize in biography. Mr. Briggs. Prereq, a course in United States history.
- 490-3. *The Teaching of History and the Social Sciences in the Secondary School*. A comprehensive methods course for prospective teachers: history, government and civics, current events, economics, sociology, and geography; curriculum revision; grading of materials; classroom methods; teacher preparation; professional publications. Attention to the unified social science course. Mr. Pitkin. Offered on demand.

(See page 319 for History courses on the 500 level.)

MATHEMATICS

PROFESSOR AMOS BLACK, PH.D. (CORNELL)	1948
PROFESSOR WILBUR C. MCDANIEL, PH.D. (WISCONSIN), CHAIRMAN	1939
ASSOCIATE PROFESSOR ELBERT FULKERSON, M.A. (ILLINOIS)	1932
ASSOCIATE PROFESSOR DILLA HALL, PH.D. (ST. LOUIS)	1924
ASSOCIATE PROFESSOR ABRAHAM MARK, PH.D. (CORNELL)	1950
ASSOCIATE PROFESSOR LOUIS D. RODABAUGH, PH.D. (OHIO STATE)	1947
ASSOCIATE PROFESSOR ANNETTE SINCLAIR, PH.D. (ILLINOIS)	1952
ASSISTANT PROFESSOR FRED BRAFMAN, PH.D. (MICHIGAN)	1956
ASSISTANT PROFESSOR MARIAN A. MOORE, PH.D. (PURDUE)	1955
ASSISTANT PROFESSOR ALICE K. WRIGHT, M.A. (ILLINOIS)	1925
INSTRUCTOR IMOGENE BECKEMEYER, M.A. (SOUTHERN ILLINOIS)	1950
INSTRUCTOR WENDELL JOHNSON, M.A. (MICHIGAN)	1955
INSTRUCTOR MORTON ROY KENNER, M.A. (MINNESOTA)	1951
LECTURER ZAMIR BAVEL, M.A. (SOUTHERN ILLINOIS)	1955-56
LECTURER GEORGE ELSTON, M.A. (WISCONSIN)	1954-56
LECTURER SAMUEL R. FILIPPONE, M.A. (WISCONSIN)	1953-56
LECTURER GABRIEL TSIANG, M.S. (NOTRE DAME)	1954-56

LECTURER LARRY L. WIMP, M.A. (MISSOURI)	1954-56
ASSISTANT INSTRUCTOR WELMA E. BUBOLTZ, B.S. (IOWA STATE)	1955-56
ASSISTANT INSTRUCTOR HAZEL V. COLEMAN, B.S. (ILLINOIS)	1955-56
ASSISTANT INSTRUCTOR ELSA E. FORD, B.A. (LAWRENCE)	1955-56

Students who take mathematics in order to satisfy part of the requirements for a bachelor's degree may choose among several courses, depending upon their previous training and their interest. Mathematics 111 is recommended for students who have had good high school training in mathematics, especially if they are interested in science, social studies, or any other field in which mathematics is used. Courses 112 or 120 may be taken as second courses following 111. Mathematics 106 is recommended for students whose mathematical training does not qualify them for course 111. It may be taken as preparation for course 111 or for elementary statistics (course 120) or as a strictly general education course. Separate sections of course 106 are offered for business majors. As a second course following 106, students may take 107, 120, or 111. Students who take 111 after 106 receive eight hours credit for the two courses.

Students whose preparation in mathematics is particularly weak should register in course 100. This is a no-credit course which reviews arithmetic and elementary algebra.

Students in the College of Education or the College of Liberal Arts and Sciences may take a major or a minor in mathematics. A major in the College of Education consists of at least 39 hours in mathematics and two minors, or of at least 48 hours in mathematics and one minor. A major in the College of Liberal Arts and Sciences consists of at least 42 hours in mathematics. A minor consists of at least 24 hours in mathematics including 111, 112, 113, and 251.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Mathematics: 111, 112, 113, 251, 252, 253, and 311; a reading knowledge of a foreign language.

Additional courses recommended for a major in Mathematics: 320, 321, 415.

Recommended electives: 305, 306, 313; Physics 206, 207, 208.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Mathematics: 111, 112, 113, 251, 252, 253, 320, 321.

Additional courses recommended for a major in Mathematics: 305, 306, 415, 313, 452, 453, 454.

Recommended electives: Physics 206; two additional courses in physics or chemistry. The curriculum may be modified to give emphasis to applied mathematics or to probability and statistics. Students who are interested in these fields should discuss their choices of electives with members of the Mathematics Department.

- 100-0. *Elementary Mathematics*. Remedial and review work in elementary mathematics, including arithmetic and beginning algebra.
- 106-4. *General Mathematics I*. A course designed particularly for students who take mathematics to satisfy a graduation requirement. Does not count toward a major or minor in mathematics. Regular sections, designated in class schedule as 106a, include a careful study of the real number system in order to provide a better understanding of arithmetic and elementary algebra. Sections for business majors, designated in class schedule as 106b, cover topics from intermediate algebra with business application. Sections designated as 106c cover a regular course in intermediate algebra. Prereq, 2 semesters of high school mathematics and satisfactory score on placement test, or 100.
- 107-4. *General Mathematics II*. Continuation of 106. Does not count on a major or minor in mathematics. Regular sections, designated in class schedule as 107a, cover certain topics from algebra and geometry. Sections for business majors, designated in class schedule as 107b, cover elementary mathematics of finance. Prereq, 106.
- 111-5. *Elementary Analysis I*. First part of the regular three-term beginning sequence for mathematics majors and minors, science majors, pre-engineering students, etc. Students who have especially good high school training in algebra and trigonometry may omit this course and go directly into 112. Includes first part of usual courses in college algebra and trigonometry. Prereq, 3 semesters of high school algebra and satisfactory score on placement test, or 106.
- 112-5. *Elementary Analysis II*. Continuation of 111. Includes remaining topics in trigonometry, additional topics in college algebra and an introduction to analytic geometry. Prereq, 111.
- 113-5. *Elementary Analysis III*. Continuation of 112. Plane analytic geometry, introduction to solid analytic geometry and some topics in college algebra. Prereq, 112.
- 120-4. *Elementary Statistics*. A basic introduction to the simpler problems of statistical inference. Descriptive statistics, probability distributions, estimation of parameters and tests of significance, regression and correlation. Does not count toward a major or minor in mathematics. Prereq, 106 or 111, or consent of instructor.
- 210-4. *The Teaching of Elementary Mathematics*. A professional treatment of the subject matter of arithmetic methods and a study of trends and current literature on the teaching of arithmetic. For elementary education majors only. Prereq, 106.
- 251-4. *Calculus I*. The elements of the differential and integral calculus. Prereq, 113.
- 252-4. *Calculus II*. Additional applications of differential calculus; additional methods of integration. Prereq, 251.
- 253-4. *Calculus III*. Additional applications of integration, multiple integrals, series, and partial derivatives. Prereq, 252.
- 305-3. *Differential Equations I*. The classical first course in methods of solving ordinary differential equation. Prereq, 253.

- 306-3. *Differential Equations II*. Self adjoint equations, Sturm's theorem, characteristic functions, orthogonal functions, Laplace transform techniques, and certain partial differential equations of physics. Prereq, 305.
- 311-3. *The Teaching of Secondary Mathematics*. A study of the place and function of mathematics in secondary education; the improvement, evaluation, and problems of instruction in secondary mathematics. For mathematics majors and minors in the College of Education only. Prereq, 20 hr. college mathematics.
- 313-4. *Solid Analytical Geometry*. Prereq, 113.
- 320-3. *Fundamental Concepts of Algebra I*. Logical development of complex number system beginning with the Peano postulates. Introduction to notions of group, ring, and field. Elementary theory of numbers and polynomials. Prereq, 251.
- 321-3. *Fundamental Concepts of Algebra II*. Theory of equations. Theory of determinants. Introduction to matrices. Classical constructions. Prereq, 320.
- 324-3. *Vector Analysis*. Prereq, 253.
- 385-2. *Topics in Biometry*. Not counted on mathematics major. Prereq, 111 and 24 hours of biological science.
- 395-2 to 8. *Readings in Mathematics*. Supervised reading in selected subjects. Prereq, consent of instructor and chairman of department.
- 407-4. *Statistical Analysis I*. An introduction to the statistical methods used in analyzing experimental data. Estimation of parameters and testing of hypotheses. Regression and correlation, analysis of variance and covariance, analysis of enumeration data. Not counted for graduate credit in mathematics. Prereq, 120, or consent of instructor.
- 408-3. *Boundary Value Problems*. A course dealing with the solutions of partial differential equations with boundary values by the use of orthogonal functions such as Fourier Series, Bessel functions, etc. Prereq, 306.
- 415-4. *Non-Euclidean Geometry*. An introduction to hyperbolic and elliptic plane geometry and trigonometry. Emphasis given to the nature and significance of geometry and the historical background of non-Euclidean geometry.
- 425-3. *Theory of Numbers*. Topics in elementary number theory, including properties of integers and prime numbers, divisibility, Diophantine equations, and congruence of numbers.
- 430-4. *Synthetic Projective Geometry of the Plane*. Introduction to the fundamental concepts of projective geometry, including a study of conics and polar systems of conics. Prereq, 113.
- 431-4. *Analytic Projective Geometry of the Plane*. Introduction to homogeneous co-ordinates; study of such topics as cross-ratio, harmonic sets, duality, projectives, involutions, and conics, using algebraic methods. Prereq, 20 hr. college mathematics, including 113.
- 440-3. *Modern Algebra for Teachers*. An introduction to algebra as a logical system, including groups, rings, and fields. Prereq, consent of instructor.

- 441-3. *Determinants and Matrices*. Polynomial theory, determinants, matrices, and solution of equations. Prereq, consent of instructor.
- 442-3. *Survey of Geometry*. A survey of geometry, including projective geometry, topology, etc. Prereq, consent of instructor.
- 452-3, 453-3, 454-3. *Advanced Calculus*. Prereq, 253.
- 460-4. *Modern Geometry*. Advanced topics in Euclidean geometry by the synthetic method. Topics including the nine-point circle, Simson line, theorems of Ceva and Menelaus, coaxial circles, harmonic section, poles and polars, similitude, and inversion. Prereq, 20 hr. college mathematics.
- 475 (375)-3. *Numerical Methods*. An introduction to approximation methods including finite differences and interpolation; numerical differentiation and integration; curve fitting; numerical solution of algebraic, transcendental, and differential equations. Prereq, 305, or 253 and consent of instructor.
- 480-3, 481-3, 482-3. *Probability and Statistics*. An introduction to probability theory and the mathematical methods used in obtaining procedures for various problems of statistical inference. Topics include the algebra of probabilities, discrete and continuous distributions, limit theorems, sampling distributions, principles of statistical estimation and testing hypotheses. Prereq, 253.

(See page 325 for Mathematics courses on the 500 level.)

MICROBIOLOGY

PROFESSOR CARL C. LINDEGREN, PH. D. (CALIFORNIA INSTITUTE OF TECHNOLOGY), CHAIRMAN	1947
ASSOCIATE PROFESSOR MAURICE OGUR, PH.D. (COLUMBIA)	1953
ASSISTANT PROFESSOR DAN O. McCLARY, PH.D. (WASHINGTON UNIVERSITY)	1951
RESEARCH ASSOCIATE B. RANGANATHAN, PH.D. (BOMBAY), VISITING PROFESSOR	1955-56

For a major in microbiology, nine courses are required including 311, 312, 422, 423, 425, 426. For a minor, five courses are required including 311, 312, 422, 423. A background of basic courses in mathematics and the natural sciences is recommended. Prospective majors are urged to consult with the departmental adviser for help in planning a curriculum.

- 201-4. *Introductory Microbiology*. Microbiology of soil, food, and public health. 2 hrs. lect; 4 hrs. lab. Mr. McClary. Winter and Spring. Not credited toward the major in microbiology.
- 301-5. *General Bacteriology*. 3 hrs. lect; 4 hrs. lab. Mr. McClary. Prereq, one term of botany or zoology and chemistry. Fall.
- 302-5. *Medical Bacteriology*. 3 hrs. lect; 4 hrs. lab. Mr. McClary. Prereq, 301.
- 307-5. *The Fungi*. (Same as Botany 301.) A study of the structure, development, and relationships of the fungi. Problems of economic and scientific interest stressed. Laboratory.
- 355-5. *Plant Pathology*. (Same as Botany 355.) A study of plant diseases caused by fungi, bacteria, and viruses. Special attention to diseases

- of Southern Illinois plants. Laboratory and field trips. Prereq, approval of instructor.
- 401-2 to 6. *Seminar*. Prereq, 301. Each quarter.
- 402-5. *Genetics*. (Same as Zoology 401.) A general course involving the principles of evolution and genetics, with experimental work in breeding strains, etc. Prereq, approval of instructor.
- 406-5. *Protozoology*. (Same as Zoology 406.) A general consideration of the taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods of culturing and preparing microscopical slides. Prereq, approval of instructor.
- 407-4. *Introduction to Statistical Inference*. (Same as Math. 407.) A basic introduction to the simpler problems of statistical inference, to prepare students for courses in an applied field. Descriptive statistics; elementary probability; binomial, poisson, normal distributions; confidence limits of parameters; significance tests. Prereq, Math. 113.
- 422-5. *Microbiology of Foods*. Study of microorganisms and relation to food preparation and preservation. 3 hrs. lect; 4 hrs. lab. Prereq, 301. Fall.
- 423-5. *Industrial Fermentation*. Study of microorganisms as applied to industrial processes. 3 hrs. lect; 4 hrs. lab. Prereq, 301 and Organic Chemistry. Spring.
- 424-5. *Soil Bacteriology*. 3 hrs. lect; 4 hrs. lab. Prereq, 301. Winter.
- 425-3. *Biochemistry and Physiology of Microorganisms*. 3 hrs. lect; Prereq, 301 and Organic Chemistry. Fall.
- 426-2. *Biochemistry and Physiology of Microorganisms*. 4 hrs. lab. Fall.
- 441-3. *Virology*. 3 hrs. lect. Prereq, 301.
- 442-4. *Laboratory Studies in Virology*. 4 hrs. lab. Prereq, 301.
- 451-5. *Immunology*.

(See page 327 for Microbiology courses on the 500 level.)

PHILOSOPHY

PROFESSOR BAKER BROWNELL, A.M. (HARVARD), EMERITUS (1954)	1952
PROFESSOR WILLIS MOORE, PH.D. (CALIFORNIA), CHAIRMAN	1955
PROFESSOR CHARLES D. TENNEY, PH.D. (OREGON)	1931
ASSOCIATE PROFESSOR WILLIAM HENRY HARRIS, PH.D. (BOSTON)	1956
ASSOCIATE PROFESSOR GEORGE KIMBALL PLOCHMANN, PH.D. (CHICAGO)	1949
ASSISTANT PROFESSOR JAMES A. DIEFENBECK, PH.D. (HARVARD)	1950

The four-hour requirement in either philosophy or psychology in the College of Liberal Arts and Sciences may be satisfied by taking any two of the elementary 100 level courses or any single 200 or 300 level course. Prerequisites apply only where specifically stated.

The courses 100, 120, 121, 140, and 160 present an introduction to philosophic ideas, problems, and vocabulary, for students with or without the intention of majoring or minoring in philosophy.

The minor consists of twenty-four quarter hours, of which four may be in 100 level courses. The department urges that minors take at least one

course in each of the following areas: metaphysics, logic, and the philosophy of science (100, 120, 121 or 300, 305 or 320); ethics (140 or 340); theory of the fine arts (160 or 360); types and history of philosophy (200 or 381 or 382 or 383.)

A major consists of forty-two quarter hours, none of which will be satisfied by courses below the 200 level. Majors will be expected to show familiarity with the broad problems in metaphysics and the philosophy of science (philosophy courses numbered, in their last two digits, 00-19), logic and method (20-39), ethics and politics (40-59), theory of the arts (60-79), and history of philosophy and general courses (80-96), as well as a more thorough mastery of one of these fields. Detailed programs will be worked out individually with the department.

- 100-2. *Science and the Nature of the World*. Introduction to scientific knowledge and its relation to philosophy. Topics drawn from many sciences presented without assuming any prior acquaintance with the sciences: infinity, cause, necessity, nature and the machine, perception, etc.
- 120-2. *Practical Logic I*. Introduction to accurate thinking, and the proper use of the resources of language, covering such topics as signs and symbols, definition, metaphor, fallacies, propaganda analysis, implication, and syllogism.
- 121-2. *Practical Logic II*. Popular but inadequate ways of gathering and summing up information in contrast with the more reliable procedures of common sense and science.
- 140-2. *Ideas of Good and Evil*. Elementary exploration of human purposes, in terms of the good, faith and knowledge, human destiny and progress, freedom, democracy.
- 160-2. *The Meaning of Art*. Significance of the arts, developed by considering selected works from architecture, painting, literature, and music.
- 200-4. *Types of Philosophy*. Study of realism, idealism, and materialism.
- 300-4. *Elementary Metaphysics*. Presentation of answers to the most general problems of existence. An attempt to unify all scientific approaches to reality through the laying down of common principles.
- 301-4. *Philosophy of Religion*. An analysis of problems in the psychology, metaphysics, and social effects of religion. Among topics discussed are the nature of mystical experience, the existence of God, and problems of suffering, prayer, and immortality.
- 302-4. *World Religions*. An historical and comparative study of the principal religions of the world. Particular attention is given to such non-Christian faiths as Hinduism, Buddhism, and Islam.
- 303-4. *Oriental Philosophy*. An examination of the historical backgrounds and contemporary expressions of the great traditions in Indian, Chinese, and Japanese thought. The Vedanta and Zen Buddhism will receive particular attention.
- 305-4. *Philosophy of Science*. A non-technical discussion of philosophic problems as they emerge from the various sciences, with readings from works addressed to the lay public.
- 320-4. *General Logic*. Terms, propositions, and reasoning. Logic as an in-

- strument for the solution of problems in natural and social sciences.
- 340-4. *Elementary Ethics and Politics*. Problems of right and wrong for the individual and society.
- 355-4. *Philosophy of Education*. Survey of theories of education and their relationship to educational policies and practices, as elucidated by the great teachers. Satisfies the education requirement, Education 355.
- 360-4. *Philosophy of Art*. The significance of art as a human activity, its nature and standards as seen in the problems of criticism, and the relation of art to other forms of knowledge.
- 381-4. *Greek and Early Christian Philosophy*. Presocratics, Plato, Aristotle, and the early Christians. Fall.
- 382-4. *Medieval and Early Modern Philosophy*. Problems of medieval philosophy and their restatement in the seventeenth and eighteenth centuries. Aquinas, Descartes, Locke, and others. Winter.
- 383-4. *Recent Philosophy*. Kant, Hegel, and such figures as Schopenhauer, Mill, and Bergson. Spring.
- 386-4. *American Philosophy*. A survey of American philosophic thought from colonial days to the present, with emphasis on such recent thinkers as Peirce, James, Royce, Dewey, and Santayana.
- 406-4. *Philosophy of Biology*. Leading concepts of biological sciences: species, evolution, life, organism, and part. Abstract ideas of biology are related, wherever possible, to specific experiments recorded in scientific literature. Prereq, 300 or 320, and three laboratory or field courses in the biological sciences, or consent of instructor.
- 420-4. *Advanced Logic*. A careful study of symbolic and discursive systems of logic: Aristotle, Spinoza, Boole, Whitehead, and Johnson. Prereq, 320, and consent of instructor.
- 441-4. *Philosophy of Politics*. Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relations of economics and social studies to political theory. Prereq, 140 or 340, or consent of instructor.
- 443-4. *Philosophy of History*. Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prereq, consent of instructor.
- 460-4. *Advanced Philosophy of Art*. The definition of art, its relations to science, culture, and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed. Prereq, 160 or 360, and six courses in music, painting, sculpture, literature, or drama.
- 490-2 to 12. *Special Problems*. Hours and credit to be arranged. Courses for qualified seniors and graduates who need to pursue certain topics further than regularly-titled courses permit. Special topics announced from time to time. Students invited to suggest topics for individual study and papers or for group study. Consent of instructor required in all cases.

(See page 329 for Philosophy courses on the 500 level.)

PHYSICS AND ASTRONOMY

PROFESSOR MARTIN J. ARVIN, PH.D. (ILLINOIS)	1949
PROFESSOR CHARLES J. BRASEFIELD, PH.D. (PRINCETON), CHAIRMAN	1954
PROFESSOR OTIS B. YOUNG, PH.D. (ILLINOIS)	1929
ASSISTANT PROFESSOR CHARLOTTE ZIMMERSCHIED, M.A. (MINNESOTA)	1927
INSTRUCTOR GEORGE R. ARNOLD, M.S. (ILLINOIS)	1953
INSTRUCTOR JASON J. COLLINS, M.S. (SOUTHERN ILLINOIS)	1955
VISITING PROFESSOR OLIVER H. GISH, M.A. (NEBRASKA)	1955-56
ASSISTANT INSTRUCTOR ROBERT C. ETHERTON, B.S. IN ED. (SOUTHERN ILLINOIS)	1955

A minimum of 36 hours is required for a major in physics in the College of Education, and 48 hours are required for a major in the College of Liberal Arts and Sciences. For a minor in either college, 24 hours are required.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Physics: 211, 212, 213, (or 206, 207, 208 with consent of department), 301, 305, 306, 314, and three of the following: 303, 310, 405, 414; Math. 111, 112, 113, 251, 252, 305, 306.

Additional courses recommended for a major in Physics: Chem. 111, 112, 113; German 101, 102, 103.

Recommended electives: Mechanical Drawing, Machine Shop.

PHYSICS COURSES

- 101-4, 102-4. *Survey Course in Physics*. Mechanics, light, and sound covered in 101; heat and electricity in 102. For students whose chief interests are not in the physical sciences. Pre-engineers and physics majors to take 211, 212, and 213. Other science majors, including pre-medical students, should take 206, 207, and 208.
- 206-5. *College Physics (Mechanics and Sound)*. The general physics course covered in 206, 207, and 208 is designed to meet pre-medical requirements in physics and the needs of all students majoring in one of the sciences, except physics. Prereq, Math. 111, 112 (or 112 concurrently).
- 207-5. *College Physics (Electricity and Magnetism)*. A continuation of 206. Prereq, 206.
- 208-5. *College Physics (Heat and Light)*. A continuation of 206 and 207. Prereq, 206.
- 211-5. *University Physics (Mechanics and Sound)*. Physics 211, 212, and 213 together constitute a thorough course in basic physics for physics majors and pre-engineers. Prereq, Math. 251 (or concurrent enrollment).
- 212-5. *University Physics (Electricity and Magnetism)*. A continuation of 211. Prereq, 211 and Math. 252 (or concurrent enrollment in Math. 252).

- 213-5. *University Physics (Heat and Light)*. A continuation of 211 and 212. Prereq, 211 and Math. 252 (or concurrent enrollment in Math. 252).
- 301-5. *Mechanics*. An intensive study of advanced mechanics, using vector notation. Emphasis on kinematics and particle dynamics. Prereq, 206 or 211; and Math. 253 (or concurrent enrollment in Math. 253).
- 303-5. *Heat*. A study of the methods of temperature measurement; theory and measurement of specific heats, thermal expansion and heat transfer; radiation laws; phase changes; and an introduction to thermodynamics. Prereq, 208 or 213, and Math. 253.
- 305-5, 306-5. *Introduction to Electric Theory I, II*. A two-quarter course covering electrostatic fields in vacuum and in matter, electromagnetic fields and electromagnetic induction, linear circuits with direct currents and with alternating currents; and electromagnetic radiation. Prereq, 207 or 212 and Math. 253.
- 308-5. *Sound*. Theory of vibrations and sources of sound, transmission, reception, and measurement of sound energy. Prereq, 206 or 211 and Math. 251.
- 310-5. *Light*. A study of light propagation and optical instruments; interference, diffraction and polarization of light. Prereq, 208 or 213.
- 312-5. *Radio*. A study of radio receivers and transmitters. Prereq, 207 or 212.
- 314-5. *Introduction to Modern Physics*. A general survey of atomic physics including elementary atomic structure, thermionics, and photoelectric effect, gas discharges, optical spectra, x-rays, mass spectra, and introduction into nuclear physics. Prereq, 207 and 208 (or 212 and 213) and Math. 253 (or concurrent enrollment in Math. 253).
- 316-5. *History of Physics*. A study of the development of physical concepts and theories, and of contemporary physical research. Designed particularly for students planning to teach.
- 325-5. *Atmospheric Physics*. A study of the fundamental physical processes in the atmosphere; the important role of water vapor; thermodynamic processes; radiation equilibrium; the general equations of motion; the growth of cyclic circulations; optical and electrical phenomena. Prereq, 207, 208, (or 212 and 213).
- 326-3. *Geophysics*. A survey of some of the principal applications of physics in the development of the earth-sciences; explanations of the origin of the earth; investigation and explanation of the shape and gross structure of the earth; determination of the age of the earth and some of its constituents. Prereq, 206 or 211, or consent of instructor.
- 327-3. *Atmospheric Electricity and Geomagnetism*. A description of the more important phenomena of atmospheric electricity and geomagnetism, how these are measured and present theories regarding the origin of the basic phenomena in these fields. Prereq, 207 or 212, or consent of instructor.
- 405-5. *Electronics*. Alternating current theory, including circuit analysis by

the use of complex numbers; a study of various types of electronic tubes and electronic devices, and their use in circuits which are frequently encountered in experimental physics, including power supplies, amplifiers, oscillators, electronic meters, electronic relays and scalars. Prereq, 305 and 306.

- 410-5. *Physical Optics*. A theoretical and experimental study of light as electromagnetic energy; its production, detection, and measurement. Prereq, Math. 253 and three advanced physics courses.
- 414-5. *Recent Developments*. Emphasis placed on developments in the field of nuclear physics. Prereq, 314.
- 420-2 to 5. *Special Projects I*. A course in which each student is assigned a definite investigative topic which demands of him considerable resourcefulness and initiative. Adapted to advanced undergraduate students. Prereq, 301, 305, and 306.
- 421-2 to 5. *Special Projects II*. A continuation of 420. Credit for 420 and 421 not to exceed 9 hours. Prereq, 420.
- 425-5. *Electrical Phenomena in Gases*. Excitation and ionization of gas atoms; diffusion of ions; space charge; glow and arc discharges. Prereq, 305 and 306.
- 430-2. *Physical Literature*. A study of source materials in the field of physics. Also library research on special subjects. Prereq, Integral Calculus, three advanced physics courses, and one year of German.

(See page 331 for Physics courses on the 500 level.)

ASTRONOMY COURSES

- 201-4, 202-4. *Introduction to Astronomy*. These two terms together constitute a single complete course. Four recitations a week, together with frequent evening observations with and without telescope.
- 301-4, 302-4. *Astronomy*. A more advanced course, similar to 201 and 202, for senior college students.

PHYSIOLOGY

PROFESSOR HAROLD M. KAPLAN, PH.D. (HARVARD), CHAIRMAN	1949
ASSISTANT PROFESSOR FRANK J. FINAMORE, PH.D. (FLORIDA STATE)	1955
ASSISTANT PROFESSOR GABRIEL L. RAPATZ, PH.D. (ST. LOUIS)	1955
ADJUNCT PROFESSOR ELI L. BORKON, PH.D., M.D. (CHICAGO)	1954

A major requires a minimum of 42 hours; a minor, 24 hours. Prospective majors should consult with the staff for a suggested curriculum. A background of basic courses in physics, chemistry, biology, and mathematics is required.

- 209-5. *Introduction to Physiology*. A survey of the functions of the human body. Designed for students in various fields desiring a basic but comprehensive knowledge of human physiology. 3 hr. lect; 4 hr. lab. Fall, Winter, and Spring.
- 300-4. *Human Anatomy*. Lectures, demonstrations, and periodic observation of the prosected body. Lectures confined to bones, joints, muscles, and nerves. Designed for majors in physical education

- and for those wishing an elementary knowledge of human structure. Fall, Winter.
- 315-5, 316-5, 317-5. *Advanced College Physiology*. Lectures emphasizing mammalian and human physiology; laboratory involving function throughout the vertebrate classes. Designed for students intending to do advanced work or teaching in the biological field. (315, Blood, Circulation, and Respiration; 316, Digestion, Excretion, Endocrines; 317, Nervous System, Sense Organs.) 3 hr. lect; 4 hr. lab. Fall, Winter, and Spring.
- 401-2 to 6. *Seminar*. Open to graduates and undergraduates with adequate training in physiology, physics, and chemistry. Fall, Winter and Spring.
- 410-5, 411-5, 412-5. *Advanced Anatomy*. A course in human dissection designed for majors in physiology and other biological sciences. Open to graduates and undergraduates. 2 hr. lect; 6 hr. lab. The three courses to be taken independently and in any sequence. Open by permission of the instructor. Fall, Winter, and Spring.
- 414-4. *Physiology of Speech*. The vocal mechanism and the ear. 3 hrs. lect; 2 hrs. lab. Winter.
- 415-4. *Experimental Animal Surgery I*. The importances of animal research, preparation of living animals for operation, principles and methods of anesthesia, techniques and instruments, care of animal quarters, and selected surgical exercises suitable to illustrate basic physiologic principles. 2 hr. lect.; 4 hr. lab. Prereq, 315, 316, and 317, or equivalents.
- 416-4. *Experimental Animal Surgery II*. Continuation of exercises of 415.
- 420-3. *Physiology of Exercise*. The effects of activity upon the bodily systems. Designed especially for majors in physical education and physiology. Prereq, 209 or equivalent. Spring.
- 421-1 to 6. *Readings in Current Physiological Literature*. Supervised readings in selected topics. Hours and credit to be arranged. Prereq, advanced standing.
- 430-4, 431-4, 432-4. *General (Cellular) Physiology*. The nature and mechanism of the living cell. Chemical and physical aspects of vital activity. Prereq, 209 plus other basic biological sciences; chemistry; physics. 2 hr. lect; 4 hr. lab. Fall, Winter, and Spring.
- 433-4. *Comparative Physiology*. Fundamental physiological processes and the manner in which they vary in various groups of animals. Laboratory exercises to demonstrate the physiologic adaptations made by selected groups of animals. 3 hr. lect.; 2 hr. lab. Prereq, 209, or equivalent. Spring.
- 450-4 to 16. *Special Problems in Advanced Physiology*. Selected problems in various aspects of physiology. Review of the latest literature. Fall, Winter, and Spring.
- 455-2. *Physiological Problems in Rehabilitation*. Designed specifically for the Rehabilitation Counseling Program and involving an introduction to the physiological problems associated with the handicapped. Prereq, consent of instructor. 2 hr. lect.

(See page 332 for Physiology courses on the 500 level.)

PSYCHOLOGY

PROFESSOR NOBLE H. KELLEY, PH.D. (IOWA), CHAIRMAN	1951
PROFESSOR WILLIAM C. WESTBERG, PH.D. (PENNSYLVANIA STATE)	1952
ASSOCIATE PROFESSOR HARRY W. DANIELS, PH.D. (WESTERN RESERVE)	1955-57
ASSOCIATE PROFESSOR LESLIE F. MALPASS, PH.D. (SYRACUSE)	1952
ASSOCIATE PROFESSOR GUY A. RENZAGLIA, PH.D. (MINNESOTA)	1955
ASSISTANT PROFESSOR ISRAEL GOLDIAMOND, PH.D. (CHICAGO)	1955
ASSISTANT PROFESSOR WILLIAM H. LYLE, JR., PH.D. (OHIO STATE)	1955
ASSISTANT PROFESSOR DAVID S. PALERMO, PH.D. (IOWA)	1955
ASSISTANT PROFESSOR JANET RAFFERTY, PH.D. (OHIO STATE)	1954
ASSISTANT PROFESSOR FORREST BROOKS TYLER, PH.D. (OHIO STATE)	1952

The Department of Psychology offers a major sequence for the Bachelor of Arts degree in the College of Liberal Arts and Sciences consisting of a minimum of 42 hours. The minimum for a minor sequence shall be 24 quarter hours in the Department of Psychology.

SUGGESTED CURRICULUM IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Psychology: 201, 202, 301, 305, 307, 410, 415, 440; Math. 120; Physiol. 205.

- 201-4. *Psychology I: The Human Personality*. A general introduction to the psychological nature of man, his inner dynamics, his learning to perceive and think about himself and his world, his personality development trends, and the basic adjustive patterns.
- 202-4. *Psychology II: Psychology in Human Relationships*. A group laboratory course in which basic psychological principles are related to the understanding of everyday human relationships; emphasis upon individual personal attitudes, perception, and behavior. Prereq, 201.
- 301-4. *Child Psychology*. The total, integrated psychological development of the child, with special consideration given to the influence of interpersonal relationships in the home and school. Prereq, 201.
- 303-4. *Adolescent Psychology*. An understanding of development through the adolescent years; its relation to development in childhood; and the special problems of adjustment in this period. Prereq, 201.
- 305-4. *Personality Dynamics*. An intensive study of the nature of the human personality, its development, its deeper basic motivations, the emergence of patterns, and the methods of personality change. Prereq, 201.
- 307-4. *Psychology of Social Issues*. A psychological approach to the major social issues in contemporary life. Prereq, 201.
- 315-4. *Introduction to Industrial Psychology*. A study of the functions of psychology as a science and as a profession in contemporary business and industry. Prereq, 201.
- 316-4. *Industrial Psychology I: Attitudes and Morale*. Psychological factors

- involved in attitudes and morale in business and industry. Prereq, 315.
- 317-4. *Industrial Psychology II: Selection and Placement*. Psychological principles and techniques utilized in selection and placement in business and industry. Prereq, 315.
- 318-4. *Industrial Psychology III: Safety and Accidents*. Psychology factors involved in the cause and prevention of accidents in the industrial situation. Prereq, 315.
- 319-4. *Industrial Psychology IV: Training Programs*. Contributions of psychology to the training of personnel in business and industry. Prereq, 315.
- 400-1 to 6. *Independent Study*. Independent readings and projects in psychology. Open only to seniors and graduate students. Prereq, consent of the instructor and chairman of the department.
- 401-4. *Psychological Problems of Adult Life*. Consideration of the psychological problems of adjustment of adults including problems of later life and old age. Prereq, 201 and consent of instructor.
- 410-4. *Experience in Group Dynamics*. A group interaction laboratory, for understanding personal attitudes and viewpoints toward self and others. Prereq, 201 and consent of instructor.
- 412-4. *Mental Hygiene*. An integration of psychological knowledge and principles concerning factors and conditions in the personal life that tend to facilitate or to deter mental health. Mental health viewed as living creatively in an atmosphere of satisfactory interpersonal relations. Prereq, 305 or consent of instructor.
- 415-4. *Introduction to Psychopathology*. The nature, etiology, and treatment of psychologically ill persons. Observations of a state mental hospital and of mental patients. Prereq, consent of instructor.
- 416-4. *Psychological Considerations in Treatment*. A course designed for advanced undergraduate and graduate students entering professions in which they will be directly concerned with corrective or remedial services. Dealing with basic psychological principles and considerations relevant to planning and conducting such treatment, with potentialities and limitations of individual and group treatment, and with environmental manipulation.
- 420-5. *Scientific Methodology in Psychology*. A basic consideration of the nature of scientific methodology as an approach to investigation and classification of problems involved in understanding the psychological nature of man. Prereq, consent of the instructor. Lect. and lab.
- 421-5. *Experimental Techniques in Psychology*. Course a continuation of 420. Utilization of major techniques in psychological experimentation. Prereq, 420. Lect. and lab.
- 425-2. *Scientific and Professional Psychology*. A view of the contemporary scenes in fields of scientific and professional psychology, including opportunities for training and service. Prereq, consent of the instructor.
- 427-4. *Introduction to Psychological Tests*. Emphasis on group tests. Prereq, consent of instructor.

- 430-2. *Personality Development and Mental Health I*. Seminar on the basic factors in psychological development and their implication for mental health and psycho-pathology. Prereq, consent of instructor.
- 431-2. *Personality Development and Mental Health II*. Continuation of 430. May be taken separately. Prereq, consent of instructor.
- 440-5. *Personality Theory and Dynamics*. Advanced course for senior students. Systematic view of theoretical contributions of major psychologists to basic understanding of dynamics of human personality. Prereq, psychology major or consent of instructor.
- 441-4. *General Theories of Learning*. Particular emphasis given to theories of learning which have emerged from the psychological laboratory. Prereq, consent of instructor.

(See page 334 for Psychology courses on the 500 level.)

SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JOSEPH K. JOHNSON, PH.D. (WASHINGTON UNIVERSITY), CHAIRMAN	1947
PROFESSOR J. CHARLES KELLEY, PH.D. (HARVARD)	1950
PROFESSOR WILLIAM J. TUDOR, PH.D. (IOWA STATE)	1948
ASSOCIATE PROFESSOR HERMAN R. LANTZ, PH.D. (OHIO STATE)	1951
ASSISTANT PROFESSOR CHARLES H. LANGE, PH.D. (NEW MEXICO)	1955
ASSISTANT PROFESSOR JAMES J. MASLOWSKI, PH.D. (NORTH CAROLINA)	1955
ASSISTANT PROFESSOR LOUIS PETROFF, PH.D. (SOUTHERN CALIFORNIA)	1940
ASSISTANT PROFESSOR CARROLL L. RILEY, PH.D. (NEW MEXICO)	1955
LECTURER CLARENCE R. JEFFERY, PH.D. (INDIANA)	1954-56
LECTURER JACK SMITH MCCRARY, M.A. (SOUTHERN METHODIST)	1949-57
LECTURER ARTHUR B. TRELSTAD, M.A. (NEW YORK)	1953-56
RESEARCH ASSISTANT DONALD LEE ROPER, B.A. (SOUTHERN ILLINOIS)	1955-56

At the undergraduate level, the department offers majors and minors for candidates for the degrees of Bachelor of Arts and Bachelor of Science in Education. For candidates for the degree of Bachelor of Arts who plan to enter a professional school of social work a special pre-professional course is provided.

Undergraduate minors, regardless of college, shall consist of at least twenty-four quarter hours. If minor is predominantly in sociology, it shall include 101 or 200 and 102. If predominantly in anthropology, it shall include 110 or 211 and 212, 343, 420 or 421 and 443.

The course offerings in Sociology may be classified as follows:

1. General Sociology: 101, 200, 305, 313, 318, 331, 408, 409, 410, 450, 455, 460.
2. The Community: 311, 316, 375, 404.
3. The Family: 103, 203, 310, 402, 403.
4. Population and Ecology: 314, 414.
5. Industrial Sociology: 325.
6. Collective Behavior, Leadership, Personality: 330, 335, 369, 381, 401, 405, 469.
7. Social Problems: 102, 301, 315, 320.
8. Pre-professional Social Work: 235, 236, 337.

SUGGESTED CURRICULA IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

General degree requirements: See page 47.

College of Liberal Arts and Sciences requirements: See page 154.

Required courses constituting a major in Sociology: Math. 120; Zool. 100; Sociology and Anthropology 110, 200, 408, 409, 450, 455, 460. Additional courses must be selected from those numbered 200 or higher, and must include a minimum of one course from each of three general areas under which sociology courses are classified above. Not more than nine quarter hours of anthropology courses may be counted toward the major. The major shall consist of not less than forty-two quarter hours of sociology and anthropology courses.

Required courses constituting a major in Sociology with a specialization in Anthropology: Psych. 201; Zool. 100; Sociology and Anthropology 200, 211, 212, 343, 420 or 421. Additional courses required may include not more than nine quarter hours of sociology courses numbered 300 or higher.

Required courses constituting a major in Sociology with a specialization in Pre-professional Social Work Program: Math. 120; Govt. 101, 231 or 300; Econ. 205; Hist. 202; Soc. 101; Zool. 100; Govt. 232; Health Ed. 206; 42 quarter hours in sociology, including 102, 235, 236, 301, 310, 337, 355, 375, 404, 460.

SUGGESTED CURRICULUM IN THE COLLEGE OF EDUCATION

General degree requirements: See page 47.

College of Education requirements: See page 103.

Required courses constituting a major in Sociology and Anthropology: Math. 120; Zool. 100; major of thirty-six quarter hours with two minors, one of which should be in another social science, must include 101 or 200, 102, 110, 310, 355 or 381; major of forty-eight quarter hours with one minor which should be in a field other than social science, must include 101 or 200, 102, 110, 301, 302 or 304, 320, 355 or 381, 375, 443.

SOCIOLOGY COURSES

- 101-5. *Introductory Sociology*. Scientific study of human society and the various means by which individuals and groups adjust to each other and to their physical and social environment. Not counted toward major in Sociology and Anthropology. Every quarter.
- 102 (202)-5. *Social Problems*. An analysis of selected contemporary social problems in their social and cultural setting such as crime, suicide, mental illness, the vices, family disorganization, with emphasis upon their extent and significance. Every quarter.
- 103-4. *Dating, Courtship and Marriage*. The problem of dating, courtship and marriage in modern American society. Recommended for the single freshman student without social science background. Cannot be used to fulfill general education requirement. Every quarter.
- 200 (300)-4. *Principles of Sociology*. Development and scope of sociology. The individual and the group; social processes; social organization; social change.

- 203-4. *Marriage and Parenthood*. The social psychology of dating, courtship, and family relations; evaluation of research findings; problems of applying scientific principles to changing overt behavior. Mr. Lantz. Prereq, 101. Every quarter.
- 235-4. *Introduction to Social Work*. The fields of professional social work; theories, objectives, and procedures. Mr. Edgar. Prereq, 101 or 200.
- 236-4. *History and Organization of Social Work*. Development of private and public agencies and organizations. Social work organizations in the United States today. Federal and state welfare legislation. Mr. Edgar. Prereq, 235.
- 301-4. *Juvenile Delinquency*. Nature of juvenile delinquency; factors contributing to delinquent behavior; treatment and prevention. Mr. Petroff. Prereq, 101 or 200.
- 305-5. *Social Institutions*. Concepts of institutions; origins, development, and variability of institutions; institutional lag and change. Mr. Petroff. Prereq, 100 or 200.
- 310-4. *The Family*. The family in historic and contemporary society; evolution of the modern family; changes in family functions, structures, and roles. Mr. Lantz. Prereq, 101 or 200.
- 311-4. *Urban Sociology*. The rise, development, structure, culture, planning and problems in early and modern cities. Prereq, 101 or 200.
- 313-3. *Educational Sociology*. Methods, principles, and data of sociology applied to the school situation; relation of the school to other institutions and groups. May be counted either as sociology or education. Prereq. 101 or 200.
- 314-4. *Population Problems*. Quality and quantity of population, problems of growth, composition, distribution, differential fertility, international and internal migration, and control of numbers and quality. Mr. Maslowski. Prereq, one of the following: 101, 200; Econ. 205; Geog. 100; Govt. 101.
- 315-4. *Crime and Its Treatment*. The nature of crime; criminal statistics; casual factors; theories and procedures in prevention and treatment. Prereq, 101 or 200.
- 316-4. *Sociology of Rural Life*. The structure, functioning, and change of rural social life; study of informal groups, neighborhoods, and communities; social class and value orientation. Mr. McCrary. Prereq, 101 or 200.
- 318-4. *Sociology of Religion*. Function of religious institutions in society and their relationship to other major social institutions; role in social control and group solidarity. Mr. McCrary. Prereq, 101 or 200.
- 320-4. *Race and Minority Group Relations*. Racial and cultural contacts and conflicts, causes of prejudice; status and participation of minority groups; national and international aspects of minority problems. Mr. Johnson. Prereq, 101 or 200.
- 325-4. *Industrial Sociology*. Social organization and processes within the formal and informal structure of the industrial unit; research and

- experimental materials concerning social determinants of morale, status and role of the worker. Mr. Maslowski. Prereq, 101 or 200.
- 330-3. *Propaganda and Public Opinion Analysis*. Techniques and characteristics of propaganda; methods of measuring public opinion. Prereq, 101.
- 331-4. *Social Control*. The means and principles of social control; social institutions as factors in control; techniques of directing social action. Mr. Petroff. Prereq, 101 or 200.
- 337-4. *Introduction to Interviewing*. Uses of the interview; types of interviews; relationship between interviewer and respondent. Three hours lecture, two hours laboratory. Mr. Edgar. Prereq, 101 or 200, or Psych. 201.
- 355-4. *Social Factors in Behavior and Personality*. How group situations and values affect behavior and shape personality; development of social attitudes, norms, and concepts; value conflicts and crises; social significance of individual differences. Mr. Johnson. Prereq, 101 or 200, or Psych. 201.
- 369-3. *Techniques of Group Leadership*. Application of leadership principles; kinds of leadership; effective techniques of group control; factors in experimental group situations. Mr. Tudor. Prereq, 101 or 200.
- 375-4. *Community Organization*. Factors involved in community organization; types, aims, and objectives; community diagnosis; individual case study of a specific community. Mr. Edgar. Prereq, 101 or 200.
- 381-4. *Personality and Social Adjustment*. Concepts of personal integration and social adjustment; emotional aspects of behavior; varieties of adjustive and non-adjustive behavior; theories of personal disorganization; selected problems. Mr. Johnson. Prereq, 101 or 200.
- 401-3. *Sociology of Infancy and Childhood*. Influences of primary groups; origins of self and role concepts; relationships between early and later development; cross-cultural and inter-class comparisons. Mr. McCrary. Prereq, 101 or 200, 310, 355.
- 402-4. *Sociology of Later Maturity and Old Age*. The social implications of an aging population; social adjustments to the aging process; personal adjustments to the roles and statuses of later maturity; older people. Mr. McCrary. Prereq, 101 or 200.
- 403-3. *Survey Course in Marriage Counseling*. Survey and analysis of the field of marriage counseling; assessment of current practices and techniques in terms of contemporary sociological theory. Prereq, 203 and permission of instructor.
- 404-3. *Community Resources*. Survey and analysis of community health, welfare, correctional and recreational agencies. Emphasis on organization, function, and services of the various agencies, public and private. Special attention to specific resources of the Illinois area. Field trips to nearby communities and agencies. Mr. Edgar. Prereq, 235 or consent of instructor.
- 405-4. *Collective Behavior*. The behavior of people in large groups; collective interstimulation and emotions; crowds, audiences, and

- publics; mass stimuli and mass response. Mr. Johnson. Prereq, 355 or consent of instructor.
- 408-3. *Social Research Methods I*. Scientific research methods and techniques applied to study of social phenomena. Discussion of the scope and purpose of social research; use of established techniques and source materials; simplified methods of collecting, evaluating and interpreting social data. Course continuous through two quarters. Mr. Maslowski. Prereq, 200; Math. 120; or consent of instructor.
- 409-3. *Social Research Methods II*. Continuation of 408.
- 410-3. *Supervised Research*. Practical application of research principles. Mr. Maslowski. Prereq, 408, 409.
- 414-4. *Principles of Demography*. Techniques in analyzing and evaluating data on human population; composition, birth and death rates, life tables, migration data, estimates of future trend. Practical uses of demographic techniques. Mr. Maslowski. Prereq, Math. 120; Soc. 314.
- 450-4. *Social Thought Before Comte*. Ancient background of European social thought; development of modern social thought. Mr. Johnson. Prereq, 200 or consent of instructor.
- 455-4. *Beginnings of Sociology*. Rise and development of scientific social thought in Europe; European influences on American social thought. Mr. Johnson. Prereq, 200 or consent of instructor.
- 460-2. *Current Literature in Sociology*. Students to read, report on, and evaluate content of leading sociological journals. Discussion of professional applications of sociology. Prereq, 15 hours in sociology. Fall.
- 469-3. *Theory of Group Leadership*. Classification of leaders; theories of leadership; analysis of representative leaders. Mr. Tudor. Prereq, 101 or 200, 331, 369.

(See page 338 for Sociology courses on the 500 level.)

ANTHROPOLOGY COURSES

- 110-5. *General Anthropology*. Anthropology as a science and a profession. Brief survey of human origins, prehistory, world ethnography. Mr. Lange or Mr. Riley.
- 211-3. *Physical Anthropology*. Human evolution and variation. Anthropometry. Mr. Riley. Prereq, 110.
- 212-3. *Cultural Anthropolgy*. Nature and origin of culture. Content and patterning of cultures. Cultural processes. Staff. Prereq, 110 or Soc. 200.
- 302-3. *Indian Cultures of Southern Illinois*. Archaeology, ethnography, anthropogeography of Middle Mississippi region. Mr. Kelley. Prereq, 110 or equivalent course.
- 304-4. *Indian Cultures of North America*. Origin and development of North American peoples and cultures. Mr. Riley. Prereq, 110 or equivalent course.
- 341-4 to 8. *Field Methods and Techniques in Archaeology*. Lectures and actual experience in the excavation and interpretation of ar-

- archaeological sites. Mr. Kelley. Prereq, 110 or equivalent course and consent of instructor.
- 342-4. *Museum Methods in Anthropology*. Lectures and actual museum experience in the preparation of specimens and exhibits of anthropological nature. Mr. Lange. Prereq, 110 or equivalent course and consent of instructor.
- 343-4. *Prehistory*. Development of culture during the prehistoric period, with emphasis on the cultures of Europe and the Fertile Crescent. Mr. Riley. Prereq, 110 or equivalent course.
- 344-4. *Indian Cultures of Mesoamerica*. The great Indian civilizations of Mexico and Central America; their origin, development, and contribution to modern Mestizo culture. Mr. Kelley. Prereq, 110 or equivalent course. Offered in alternate years.
- 345-4. *Indian Cultures of South America*. Native cultures of South America and the West Indies, including a study of the great Indian civilizations of the past. Mr. Riley. Prereq, 110 or equivalent course. Offered in alternate years.
- 346-4. *Indian Cultures of the American Southwest*. Survey of Indian peoples and cultures, past and present, of the Southwest, an area of unusual importance in anthropology. Mr. Lange. Prereq, 110 or equivalent course. Offered in alternate years.
- 347-4. *Peoples and Cultures of Europe*. Traditional and contemporary cultures of this well-known but little understood area. Population movements and diffusion of ideas as background for the complex European ethnic scene. Mr. Lange. Prereq, 110 or equivalent. Offered in alternate years.
- 348-4. *Peoples and Cultures of Africa*. Race, culture, and change in Africa, with especial emphasis on Negro Africa. Mr. Riley. Prereq, 110 or an equivalent course. Offered in alternate years.
- 349-4. *Peoples and Cultures of Asia and Oceania*. Survey of races and cultures of the major areas, of Asia, the adjacent islands, and Oceania. Mr. Lange. Prereq, 110 or equivalent course. Offered in alternate years.
- 420-4. *The Building of Cultures*. Factors involved in the growth of specific cultural patterns. Mr. Kelley. Prereq, 212 and 6 hours advanced anthropology, or three hours of advanced anthropology and 3 hours advanced sociology, geography, history, or economics.
- 421-4. *Methodology in Cultural Anthropology*. Survey of development of anthropology and its various methodological schools. Mr. Kelley. Prereq, 212 and 6 hours advanced anthropology, or 3 hours advanced anthropology and 3 hours advanced sociology, geography, history, or economics.
- 422-1 to 6. *Reading in Anthropology*. Staff. Prereq, 6 hours advanced anthropology or 3 hours anthropology and 3 hours advanced sociology, geography, history, or economics.
- 423-1 to 6. *Supervised Research in Anthropology*. Staff. Prereq, 6 hours advanced anthropology or 3 hours anthropology and 3 hours advanced sociology, geography, history, or economics.
- 440-4. *Social Anthropology*. Theory and method in community study;

- functional analysis, cultural themes, and value orientations in both primitive and modern cultures. Mr. Lange. Prereq, 110 or 200, or 212; and 12 additional hours in the social sciences.
- 441-4. *Primitive Religions*. Consideration of the origin of religion, and a survey of religions past and present, with emphasis on the beliefs of primitive peoples. Mr. Riley. Prereq, senior classification, or consent of instructor. Offered in alternate years.
- 442-4. *Primitive Arts and Crafts*. The development of man as a tool using and art loving animal. The artistic and manufacturing traditions of modern primitive peoples. Mr. Riley. Prereq, senior classification, or consent of instructor. Offered in alternate years.
- 443-4. *Applied Anthropology*. The uses of anthropology in the present day world. How the anthropologist aids the administrator, business man, government official, and other specialists. Mr. Lange or Mr. Riley. Prereq, senior classification, or consent of instructor. Offered in alternate years.
- 444-4. *Primitive Cultures and Education*. How primitive peoples teach and perpetuate specific cultural patterns, and our own methods and goals in facilitating the acculturation of surviving primitive peoples. Mr. Lange. Prereq, senior classification, or consent of instructor. Offered in alternate summer sessions.

(See page 340 for Anthropology courses on the 500 level.)

ZOOLOGY

PROFESSOR HARVEY I. FISHER, PH.D. (CALIFORNIA), CHAIRMAN	1955
PROFESSOR WILLARD M. GERSBACHER, PH.D. (ILLINOIS)	1929-1930; 1936
ASSOCIATE PROFESSOR CHARLES L. FOOTE, PH.D. (IOWA)	1947
ASSOCIATE PROFESSOR WILLARD D. KLIMSTRA, PH.D. (IOWA STATE)	1949
ASSOCIATE PROFESSOR WILLIAM M. LEWIS, PH.D. (IOWA STATE)	1949
ASSOCIATE PROFESSOR HILDA A. STEIN, M.S. (ILLINOIS)	1925
ASSISTANT PROFESSOR JOHN CHARLES DOWNEY, PH.D. (CALIFORNIA AT DAVIS)	1956
ASSISTANT PROFESSOR EDNA DUDGEON, PH.D. (TEXAS)	1955
ASSISTANT PROFESSOR GEORGE GAROIAN, PH.D. (ILLINOIS)	1956
ASSISTANT PROFESSOR HOWARD STAINS, PH.D. (KANSAS)	1955
INSTRUCTOR VERNON COLE, M.S. (MICHIGAN STATE)	1956
ASSISTANT INSTRUCTOR LILLIAN HIRSCH, B.A. (YOUNGSTOWN)	1955-56

A minimum of forty-eight hours is required for a major in Zoology. Zoology 100, 101, 105, 202, 300, 401, and one of the following courses, 303, 335, 408, 461, 465, are required.

One year of a foreign language (preferably French, German, or Russian) is required of all majors, and two years of one such language are recommended.

Other courses recommended for majors in Zoology include: Chem. 111, 112, 113, 305, 306; Physics 106, 107, 108; Bot. 101, 202, 203; Math. 106 or 111, 120 Majors in Zoology who expect to do graduate work should take at least one year of chemistry, one year of botany, and two terms of physics.

A minimum of twenty-four hours is required for a minor in Zoology. 100, 101, 105, and two courses in the 300 or 400 series are required.

- 100-5. *Principles of Animal Biology*. Introduction to the major principles underlying the study of zoology. Lectures on principles of animal classification, organization of matter into cells, tissues, organs, and organ systems, heredity, ecology, animal distribution, organic evolution, economic zoology, and conservation. Laboratory work designed to illustrate the above principles. Course satisfies general education requirement in zoology. Each term. Mr. Fisher.
- 101-5. *General Vertebrate Zoology*. Studies of fishes, amphibians, reptiles, birds, and mammals, with special emphasis on the amphibian type. Evolutionary development, structure, and natural history are emphasized. Prereq, 100. Each term. Mr. Klimstra, Mr. Lewis.
- 105-5. *General Invertebrate Zoology*. Studies of typical representatives of the various kinds of invertebrate animals. Relationships, structure, and natural history are emphasized. Prereq, 100. Each term.
- 202-5. *Comparative Vertebrate Anatomy*. Comparative studies of the organ systems of vertebrate animals, with emphasis on the phylogeny and evolution of these organs. Prereq, 101, 105. Fall, Winter, and Spring. Mr. Gersbacher.
- 300-5. *Vertebrate Embryology*. Development of the individual and the relationship of this development to vertebrate phylogeny; chick and pig used as types. Prereq, 202. Fall, Winter, Spring. Mr. Foote.
- 303 (210)-4. *General Ornithology*. Recognition of birds and study of their songs, nests, migratory habits, and other behavior. Cost of field trips, \$10-\$25 per student. Prereq, 100, or its equivalent. Spring. Mr. Fisher, Miss Stein.
- 306-4. *Entomology*. Principles of the structure, classification, and life histories of insects. Prereq, 105. Spring, 1957, and alternate years. Mr. Downey.
- 310-5. *Animal Ecology*. Habitats, relations, formations, and associations of animals. Cost of field trips, \$10-\$25 per student. Prereq, 101, 105. Spring, 1958, and alternate years. Mr. Gersbacher.
- 313-3. *Evolution*. Principles and processes of the evolution of living things, including the development of present-day man. Prereq, one year of biology. Winter. Mr. Stains.
- 314-4. *Heredity and Eugenics*. Principles of heredity in relation to animals, including man. (Also given by extension.) Prereq, Zool. 100 or Bot. 101. Winter. Miss Dudgeon.
- 320-5. *Histology of Organs*. Microscopic study of organs and tissues and their origin, development, and function. Prereq, 202. Fall. Mr. Foote.
- 321-5. *Histological Technique in Zoology*. Latest methods of preparing material for microscopic study. Prereq, one year of zoology. Winter. Mr. Gersbacher.
- 322-2 to 5. *Problems in Zoology*. Research on zoological problems. Prereq, 4.25 grade-point average, senior standing, and approval of the department. (Credit may not be used to satisfy any part of the requirements for a minor in zoology.) Each term. Staff.

- 326-4. *Advanced Entomology*. Morphology, taxonomy, and economic importance of insects. Fall, 1957, and alternate years. Prereq, 306. Mr. Downey.
- 335-5. *Field Zoology*. Taxonomy, natural history, and distribution of local animals. Cost of field trips, \$10-\$25 per student. Prereq, 101, 105. Spring. Miss Stein.
- 350-4. *Economic Zoology*. Animals in relation to public welfare. (Credit may not be used to satisfy any part of the requirements for a minor or major in zoology.) Summer and by extension. Miss Stein.
- 380-4. *History of Biology*. (Same as Botany 380.) Biological sciences from the early Greek philosophers to the present time. Prereq, one year of biology. Winter, 1957, and alternate years. Miss Stein.
- 401 (315)-5. *Genetics*. (Same as Microbiology 402.) Principles of inheritance including genetic mechanisms, mutation, and selection. Prereq, 12 qtr. hrs. of biological science. Fall and Spring. Miss Dudgeon.
- 402-4. *Natural History of Invertebrate Animals*. Observation, identification, and life histories of common invertebrate animals. A course designed for teachers. Prereq, 100, 105 or equivalents, and departmental approval. Alternate summers, 1957.
- 403-4. *Natural History of Vertebrate Animals*. Observation, identification, and life histories of common vertebrate animals. A course designed for teachers. Prereq, 100, 101 or equivalents and departmental approval. Alternate summers, 1956. Mr. Fisher.
- 405-4. *Advanced Invertebrate Zoology*. Anatomy and natural history of representative invertebrate types, with an introduction to the taxonomy of the various phyla. Fall. Prereq, 105.
- 406-4. *Protozoology*. (Same as Microbiology 406.) Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods of culturing and studying. Winter, 1957, and alternate years. Prereq, 105. Mr. Garoian.
- 407 (500)-5. *Parasitology*. Collection of parasitic animals, identification, morphology, life history, and control measures. Spring. Prereq, 105. Mr. Garoian.
- 408-4. *Herpetology*. Taxonomic groups, identification, and natural history of amphibians and reptiles. Spring. Prereq, 202.
- 441-4. *Advanced Vertebrate Embryology*. The development and organization of vertebrate animals during embryogenesis, with emphasis on mammalian forms. Prereq, 300. Winter, 1957, and alternate years. Mr. Foote.
- 460-3. *Upland Game Birds*. Classification, natural history, and management. Prereq, one year of zoology, including 101. Winter. Mr. Klimstra.
- 461-4. *Mammalogy*. Taxonomic groups, identification, and natural history of mammals. Fall. Prereq, 202.
- 462-3. *Waterfowl*. Classification, natural history, and management. Prereq, one year of zoology, including 101. Winter. Mr. Klimstra.
- 463-4. *Game Management*. General survey of management techniques. Prereq, 101, 105, 306. Spring. Mr. Klimstra.

- 465-4. *Ichthyology*. Taxonomic groups, identification, and natural history of fishes. Prereq, 202. Fall. Mr. Lewis.
- 466-4. *Fish Management*. Attributes of fishes that affect their management, sampling, dynamics, and manipulation of fish populations, age and growth, habitat improvement, and fish culture. Prereq, 202. Spring. Mr. Lewis.
- 470-4. *Methods in Biology*. (Same as Botany 470.) A study of methods, objectives, types of courses. Laboratory and field trips to Southern Illinois high schools. Prereq, major in zoology or botany. Mr. Welch.

(See page 344 for Zoology courses on the 500 level.)

NURSING

PROFESSOR VIRGINIA HALL HARRISON, M.S.N.E. (ST. LOUIS),
CHAIRMAN

1955

The Department of Nursing is not at present attached to a school or college but is an independent unit in the University's educational organization. It is directly responsible to the Vice-President for Instruction.

The Department of Nursing serves young men and women already practicing as members of the profession and those who intend to enter the field upon graduation from high school. It aims to provide programs in general and professional education, and to enable the practitioner to render skilled nursing service in any of the many branches of nursing while assisting him to develop as a well-rounded person in accordance with his individual capabilities and interests.

Southern Illinois University created the Department of Nursing in September 1955, with the hope of increasing and improving nursing service throughout the region. By the Fall of 1957, the department hopes to develop two programs, both leading to the degree, Bachelor of Science in Nursing: (1) The Basic Professional Curriculum, a four-year program for high school graduates who meet University entrance requirements, and (2) a Supplemental Program for Graduate Nurses. In the meantime, plans are being made to give refresher courses, workshops and institutes for graduate nurses. Advisement is available to young men and women currently enrolled in the University, who wish to study nursing at other institutions, as well as those who expect to spend two years at the University before admission to the professional nursing curriculum, and to graduate nurses. Questions concerning any offerings or services rendered by the Department of Nursing should be addressed to the Chairman, Room 101, Old Main Building.

SUGGESTED CURRICULUM FOR STUDENTS INTERESTED IN THE BASIC PROFESSIONAL CURRICULUM

General degree requirements: See page 47.

Requirements for Nursing: Chem. 109, 249; Math. 106; Psych. 201; Soc. 101; Micro. 201; Physiology 209, 300; Speech 101; Nursing 101, 151, 152.

SUGGESTED CURRICULUM FOR STUDENTS INTERESTED IN THE SUPPLEMENTAL PROGRAM FOR GRADUATE NURSES

General degree requirements: See page 47.

Nursing requirements: 309, 310, 312, 330, 331, 375, 399.

Recommended electives: Health Educ. 300, 306, 325, 355; Physiology 209, 300, 316, 317; Micro. 302; Physics 101, 102; Speech 101.

- 101-4. *Introduction to Nursing*. General orientation to the field. Historical development, philosophy of nursing education and service, the team, functions of nursing, hospitals and other health agencies.
- 151-1. *Materia Medica*. A laboratory course in the arithmetic of drugs and solutions; the apothecarie and metric systems; weighing and measuring, and compounding of dosages.
- 152-2. *Interpersonal Relationships in Nursing*. A course designed to help the students adapt to changing situations, and to accept and understand themselves and others in various situations.
- 309-4. *Introduction to Administration in Nursing Services*. Principles of administration applied to hospitals and other nursing services.
- 310-4. *Normal Growth and Development*. This course aims to increase the graduate nurse's understanding of physical, emotional, mental, and social changes normally occurring from birth to old age.
- 312-4. *Teaching in Nursing*. Techniques of teaching applied to patients and families, as well as groups.
- 330-4. *General Nursing*. Survey of modern medical and nursing care, intended to deepen and broaden the graduate nurse's professional knowledge and skill.
- 331-4. *General Nursing*. May be taken before or after 330.
- 375-4. *Principles of Public Health Nursing*. Objectives, principles, and practices in public health nursing; application of nursing science and art to family and community living.
- 399-4. *History and Philosophy of Nursing*. Historical approach to understanding of the broad movements and trends in nursing and philosophical concepts underlying current developments.

SMALL BUSINESS INSTITUTE

DIRECTOR R. RALPH BEDWELL, M.S. (SYRACUSE)

1954

The Small Business Institute has as its purposes (a) developing sufficient managerial skills in students interested in founding or managing small businesses in Southern Illinois, (b) providing advice for small businesses through the professional staff of the University, and (c) encouraging the application of the highest standards of business and community responsibility throughout the area.

For students who have clearly in mind specific businesses they want to start, take over, or work into upon graduation, the Small Business Institute provides both formal course work and on-the-job training to develop the technical and managerial skills in businesses of the type they are planning to enter, leading to a Bachelor of Science degree. Such students should confer with the Director of the Institute in advance of the registration date. Interested freshmen will usually enroll in the Department of Business Administration and make application for admission to the Institute preferably during the latter part of the year.

REQUIREMENTS FOR GRADUATION

General degree requirements: See page 47.

Institute degree requirements: Bus.Ad. 472. In addition, (1) all majors will be required to take a minimum of 48 quarter hours in Business Administration and Economics, the courses not being designated until each student has declared his small business goal. At that time a complete program will be worked out with the adviser. (2) Other required courses will be selected from the various academic units of the University. These courses will be chosen particularly to strengthen the background of the student in his special business venture. (3) All students are required to spend at least a minimum of six months or the equivalent working full time in a business of the type they plan to enter. The work will carry regular college credit when fully approved, supervised, and directed by the Institute faculty.

Electives: Because of the individual nature of this curriculum, the number of hours available as electives may vary with the business selected.

DIVISION OF TECHNICAL AND ADULT EDUCATION

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN ERNEST J. SIMON, M.S. (ILLINOIS), LL.D. (BRADLEY)	1950
ASSISTANT DEAN HARRY B. BAUERNFEIND, M.A. (NORTHWESTERN)	1951
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. MCGRATH, PH.D. (IOWA)	1949

ADULT EDUCATION

SUPERVISOR OF ADULT EDUCATION FRANCIS M. LYNCH, B.S. (OSWEGO STATE TEACHERS)	1955
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The Adult Education program was established in 1950 to provide greater educational services to the adults in the various communities of Southern Illinois. This program now reaches some 3,500 adults a year. Courses are offered in approximately forty communities of Southern Illinois and are available to adults in any community. Any adult, regardless of educational background, may register for these courses. However, this does not preclude the establishment of prerequisites when needed.

Courses are offered from one, two, and three week special programs to those which meet one to three hours a week from eight to eighteen weeks. Courses in Adult Education include a wide range of interests and activities, and can be developed further to meet other demands and needs. They are now being conducted in the following areas:

Art	Letter Writing
Agriculture	Political Science
Banking	Psychology
English	Real Estate
Homemaking	Retailing and Marketing
Industrial Management	Secretarial and Office Procedure
Insurance	Speech
Labor and Industrial Relations	Supervisory Techniques

Examples of specific courses which have been offered include Welding for Plumbers, Federal Income Tax Procedures, Negotiable Instruments for Bankers, Instrumentation for Highway Employees, Waitress Training, Window Display, Advertising, Real Estate Appraisal, and Blue Print Reading for Electro-Power Employees. Special schools are conducted for bankers, beauty salon operators, insurance underwriters, and electric hot line maintenance. All courses are non-credit and are designed for vocational improvement, avocational, or improvement in general education.

The Adult Education faculty is composed of staff members from the University and the Vocational-Technical Institute as well as outstanding industrial, professional, and business leaders. The practical, functional approach is used by the instructors. Contacts are invited to discuss specific needs from groups such as parent teacher associations, industries, labor and management groups, retailers, and business concerns. Courses are then planned and offered to meet specific needs of these adult groups.

VOCATIONAL-TECHNICAL INSTITUTE

DIRECTOR OF VOCATIONAL-TECHNICAL INSTITUTE KEITH HUMBLE, PH.D (MISSOURI), PROFESSOR	1955
SUPERVISOR OF WOOD PILOT PLANT WILLIAM W. RICE, M.F. (YALE), INSTRUCTOR	1954
ASSISTANT PROFESSOR JAMES JOSEPH CASEY, M.A. (FLORIDA)	1955
ASSISTANT PROFESSOR WALTER J. ELDER, M.S. IN ARCH. (NEW YORK)	1954
ASSISTANT PROFESSOR BONNIE A. LOCKWOOD, PH.D. (PITTSBURGH)	1945
ASSISTANT PROFESSOR FRANCIS D. MODLIN, M.S. (KANSAS STATE TEACHERS COLLEGE)	1954
ASSISTANT PROFESSOR DEAN C. TRACY, M.A. (MISSOURI)	1955
INSTRUCTOR GEORGE R. ARNOLD, M.S. (ILLINOIS)	1953
INSTRUCTOR MURNICE H. DALLMAN, B.S. (STOUT INSTITUTE)	1954
INSTRUCTOR MARY MARGARET GARRISON, B.ED. (SOUTHERN ILLINOIS)	1955
INSTRUCTOR JOHN E. GRISWOLD, M.ED. (ILLINOIS)	1955
INSTRUCTOR CHESTER E. JOHNSTON, A.M. (GEORGE PEABODY)	1955
INSTRUCTOR D. L. LAMPMAN, B.A. (IOWA STATE TEACHERS COLLEGE)	1954
INSTRUCTOR PAUL J. LOUGEAY, B.S. (ILLINOIS)	1954
INSTRUCTOR JAMES McDONALD, B.S. IN ED. (CENTRAL MISSOURI)	1955
INSTRUCTOR HAROLD WAYNE MOORE, M.S. (KANSAS STATE TEACHERS COLLEGE)	1955
INSTRUCTOR RICHARD H. MORTON, B.A. (OKLAHOMA CITY)	1955
INSTRUCTOR FRANK W. MUHICH, B.S. (COLORADO A. & M.)	1952
INSTRUCTOR HAROLD W. OSBORN, B.S. (STOUT INSTITUTE)	1955
INSTRUCTOR JAMES M. PASCH, B.S. (NORTH DAKOTA)	1954
INSTRUCTOR WILLIAM RANDLE, M.S. IN ED. (SOUTHERN ILLINOIS)	1945
INSTRUCTOR O. B. RAY, B.S. (MURRAY)	1953
INSTRUCTOR E. CARL SCHROEDER, B.S. (CENTRAL MICHIGAN)	1955
INSTRUCTOR HARRY R. SODERSTROM, M.S. (BRADLEY)	1954
INSTRUCTOR JAMES E. TOOLEY, M.S. IN ED. (SOUTHERN ILLINOIS)	1954
INSTRUCTOR WILLIAM E. WASKA, B.S. (AMERICAN TELEVISION INSTITUTE)	1954
INSTRUCTOR WALTER E. WEFFENSTETTE, B.S. (ILLINOIS)	1954
INSTRUCTOR LUCIAN D. WILLEY, B.ED. (WESTERN ILLINOIS)	1953
INSTRUCTOR HARVEY S. WOODS, M.S. (ILLINOIS)	1949
LECTURER JOHN A. BOND, A.M. (CHICAGO)	1954-56
LECTURER SAMUEL R. FILIPPONE, M.A. (WISCONSIN)	1953-56
LECTURER PAUL F. JONES	1954-56
ASSISTANT SUPERVISOR FREDERICK E. LLOYD	1955
LECTURER ELEANOR K. MATHIS	1953
LECTURER RAYMOND SCHULTZ	1952
LECTURER THOMAS A. SMITH	1953

LECTURER GERALD W. STRAKER	1954-56
LECTURER FRANK E. VAUGHN, B.S. (SOUTHERN ILLINOIS)	1952
LECTURER LARRY L. WIMP, M.A. (MISSOURI)	1954-56
ASSISTANT INSTRUCTOR GEORGE W. BAIN	1954-56
ASSISTANT INSTRUCTOR KATHERINE JUNE CHRISTENSEN, R.N.	1954
ASSISTANT INSTRUCTOR ROBERT C. ETHERTON, B.S. IN ED. (SOUTHERN ILLINOIS)	1955
ASSISTANT INSTRUCTOR JOHN K. MURPHY	1955-56

The Vocational-Technical Institute was established in 1952 to provide a college-level program of instruction beyond high school, and of shorter duration than the usual four-year college programs, qualifying students for employment at the semi-professional and technical level in industry, office occupations, personal services, merchandising, and retailing. A combination of technical and general education courses is included in each curriculum.

Scientific and technological changes have increased the possibilities for employment at the technician's level. For every professional, it is estimated that industry and business demand two to seven trained technicians.

Three types of programs are offered for high school graduates:

1. Two-year curricula in various phases of business and retailing leading to an Associate of Business degree.
2. Two-year curricula in various technical fields leading to an Associate of Technology degree.
3. One-year certificate programs in Calculating Machines, Practical Nursing, Welding, Cosmetology, and Stenography.

This program is not to be confused with the first two years of any of the four-year degree programs offered by the colleges and schools of the University. The extent to which credits earned in the various Vocational-Technical Institute programs may be transferred to any of the four-year degree programs or vice versa will be evaluated by the Registrar working with the appropriate college or school. This evaluation of transferable credits will be done on the basis of the student's previous course of study in relation to his desired new program.

LOCATION

The Vocational-Technical Institute is located at the site of the former Illinois Ordnance Plant eleven miles east of Carbondale and five miles west of Marion on Route 13. Buildings in the Illinois Ordnance Plant Administration area have been remodeled and additional buildings have been added to accommodate students for instruction, food services, recreation, and housing purposes.

PROGRAMS OF STUDY FOR VOCATIONAL-TECHNICAL INSTITUTE STUDENTS

ASSOCIATE DEGREE PROGRAMS IN BUSINESS

Accounting
Court Reporting
Insurance

Secretarial Programs

- Co-operative Medical Secretarial
- Executive Secretarial
- Legal Secretarial

Co-operative Retailing Programs

- Apparel and Department Store Merchandising
- Food Merchandising
- Hard Line Merchandising

ASSOCIATE DEGREE PROGRAMS IN TECHNOLOGY

- Architectural Drafting and Design Technology
- Automotive Technology
- Building Construction Technology
- Commercial Art
- Dental Laboratory Technology
- Industrial Wood Technology
- Machine Drafting and Design Technology
- Machine Tool Technology
- Printing Technology
- Radio and Television Technology

CERTIFICATE PROGRAMS

- Bookkeeping-Clerical
- Calculating Machines
- Cosmetology
- Practical Nursing
- Stenographic
- Welding

ASSOCIATE IN BUSINESS DEGREE PROGRAMS

The Business Division offers programs of study to prepare graduates of the Vocational-Technical Institute for office or retailing occupations. Southern Illinois offers excellent opportunities of employment in both fields.

Business courses at the Vocational-Technical Institute train young men and women for the initial job in the areas of accounting; executive, legal, or medical secretarial; clerical-bookkeeping; calculating machine operation; or conference-court reporting. In addition to skill training, related courses are required which give the student business-background information as a basis for occupational advancement. Certain of these courses are co-operative and provide part-time work experience. The co-operative programs consist of three parts, closely co-ordinated: the instruction at the Institute; the pre-planned work schedules at the co-operating office; and the co-ordination conferences with the co-ordinator. These programs provide students with periods of study and laboratory work at the Institute, matched by equivalent work experience periods spent in offices of the area.

Retail courses at the Institute train young men and women in apparel merchandising; food and grocery merchandising; or hard-lines merchandising, such as hardware, furniture, appliances, and farm implements. Classroom instruction, in all phases of retailing, is combined with part-time

work whereby the student obtains on-the-job experience in a retail establishment. The part-time jobs are planned in co-operation between the Institute and the employer whereby the student has different duties in each eight-week assignment. This provides a wide variety of work-experience of a progressive nature, leading to supervisory or pre-management levels of full-time employment.

ACCOUNTING

The accounting curriculum requires a minimum of 107 quarter hours for graduation. It offers thorough and practical training for a position of office clerk, bookkeeper, payroll clerk, junior accountant, or assistant to an accountant or auditor. Positions with internal revenue and social security agencies are also filled by graduates of this curriculum.

First Term	Clock Hours	Quarter Hours
101B-7 Accounting I	10	7
104G-5 Mathematics Fundamentals	5	5
or		
105G-2 Algebra Fundamentals	2	2
100G-3 English Fundamentals	3	3
126B-3 Fundamentals of Business	3	3
Second Term	Clock Hours	Quarter Hours
102B-5 Accounting II	5	5
101S-3 Typewriting I	5	3
101G-3 Business Correspondence	3	3
101K-3 Calculating Machines I	5	3
107G-5 Technical Mathematics	5	5
Third Term	Clock Hours	Quarter Hours
103B-5 Accounting III	5	5
116G-4 Principles of Speech	4	4
102S-3 Typewriting II	5	3
127B-4 Business Law I	4	4
125S-2 Personality Development I	2	2
Fourth Term	Clock Hours	Quarter Hours
201B-4 Accounting IV	4	4
202B-4 Cost Accounting I	4	4
227B-5 Office Administration and Supervision	5	5
226B-4 Business Law II	4	4
142G-4 Psychology of Human Relations	4	4
Fifth Term	Clock Hours	Quarter Hours
203B-4 Accounting V	4	4
233B-5 Federal Taxes	5	5
275B-5 Credits and Collections	5	5
204B-4 Cost Accounting II	4	4
Sixth Term	Clock Hours	Quarter Hours
230B-5 Auditing	5	5
126S-2 Personality Development II	2	2

121G-5	Problems of American Democracy	5	5
127G-5	Economic Principles	5	5
201X-2	Job Orientation	3	2

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 146D-3 Freehand Drawing I
- 101N-3 Drawing and Composition I
- 102N-3 Drawing and Composition II
- 130N-3 Lettering and Layout
- 177G-2 Economics of Distribution
- 227R-3 Personnel Management
- 279R-3 Public Relations
- 107S-2 Filing
- 279B-2 Graphic Analysis
- Soc. 101-5 Sociology
- Mus. 100-3 Music Understanding

COURT REPORTING

This curriculum requires a minimum of 100 quarter hours for graduation. It is a specialized field with many possibilities for advancement in position and in income. The shorthand reporting curriculum provides thorough practical training for young men and young women who wish to prepare for the profession of court reporting. It not only trains the graduate in the art of writing shorthand at high rates of speed for sustained periods of time, but also in vocabulary, technical terms, phrases, and court procedure. Much practice is devoted to "taking" of court materials, including two- and four-voice dictation. This curriculum is intensive and practical, and prepares the graduate for the exacting requirements of the profession.

Prerequisites for this curriculum are the equivalent of two years of previous training in shorthand (Gregg or machine), typewriting, one year of business law, business English, and business speaking. In addition, a writing ability in shorthand of 140 words per minute, transcription rate of 30 words per minute, and a typing speed of 70 net words per minute are prerequisites. An entrance test will determine the achievement of the student entering this curriculum. A deficiency may be made up at the Vocational-Technical Institute before proceeding with the court reporting curriculum.

First Term	Clock Hours	Quarter Hours
101H-3 Congressional Dictation	3	3
104H-3 Literary Dictation I	3	3
107H-3 Two-Voice Testimony I	3	3
110H-5 Indoctrination I	5	5
111H-4 Transcription VI	4	4
Second Term	Clock Hours	Quarter Hours
102H-3 Congressional Dictation II	3	3
105H-3 Literary Dictation II	3	3

108H-3	Two-Voice Testimony II	3	3
112H-3	Jury Charge I	3	3
114H-4	Transcription VII	4	4
Third Term		Clock Hours	Quarter Hours
103H-3	Congressional Dictation III	3	3
106H-3	Literary Dictation III	3	3
109H-3	Two-Voice Testimony III	3	3
113H-3	Jury Charge II	3	3
115H-4	Transcription VIII	4	4
Fourth Term		Clock Hours	Quarter Hours
201H-3	Congressional Dictation IV	3	3
204H-3	Literary Dictation IV	3	3
207H-3	Two-Voice Testimony IV	3	3
212H-3	Jury Charge III	3	3
216H-4	Transcription IX	4	4
Fifth Term		Clock Hours	Quarter Hours
202H-3	Congressional Dictation V	3	3
205H-3	Literary Dictation V	3	3
208H-3	Two-Voice Testimony V	3	3
213H-3	Jury Charge IV	3	3
215H-2	Four-Voice Testimony I	2	2
217H-4	Transcription X	4	4
Sixth Term		Clock Hours	Quarter Hours
203H-3	Congressional Dictation VI	3	3
206H-3	Literary Dictation VI	3	3
209H-2	Two-Voice Testimony VI	2	2
219H-2	Four-Voice Testimony II	2	2
214H-3	Jury Charge V	3	3
218H-4	Transcription XI	4	4

INSURANCE

This curriculum requires a minimum of 107 quarter hours for graduation. It is designed for students who will go into business for themselves or become associated with others engaged in the practice of insurance. Courses in this curriculum are designed to build a suitable background to enter the insurance field, and to prepare for the Chartered Life Underwriter's examinations upon suitable attainment of experience in the field.

First Term		Clock Hours	Quarter Hours
126B-3	Fundamentals of Business	3	3
101B-7	Accounting I	10	7
100G-3	English Fundamentals	3	3
104G-5	Mathematics Fundamentals	5	5
or			
105G-2	Algebra Fundamentals	2	2
Second Term		Clock Hours	Quarter Hours
102B-5	Accounting II	5	5
101G-3	Business Correspondence	3	3

121G-5	Problems of American Democracy	5	5
127G-5	Economics Principles	5	5
107G-5	Technical Mathematics	5	5
Third Term		Clock Hours	Quarter Hours
116G-4	Principles of Speech	4	4
127B-4	Business Law I	4	4
279R-3	Customer Sales Relations	3	3
234B-3	Real Estate Principles	3	3
235B-4	Business Statistics	4	4
Fourth Term		Clock Hours	Quarter Hours
226B-4	Business Law II	4	4
236B-5	Insurance Principles I	5	5
101S-3	Typewriting I	5	3
237B-3	Real Estate Appraisal	3	3
142G-4	Psychology of Human Relations	4	4
Fifth Term		Clock Hours	Quarter Hours
238B-5	Life Insurance I	5	5
239B-4	Fire and Inland Casualty Insurance	3	3
102S-3	Typewriting II	5	3
240B-4	Property and Casualty Insurance I	4	4
	Elective		3
Sixth Term		Clock Hours	Quarter Hours
241B-4	Property and Casualty Insurance II	5	5
227B-4	Office Administration and Supervision	4	4
233B-5	Federal Taxes	5	5
201X-2	Job Orientation	3	2
	Elective	3	3

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 107S-2 Filing
- 227R-3 Public Relations
- 277R-3 Personnel Relations
- 101N-3 Drawing and Composition I
- 279R-2 Graphic Analysis
- 177G-2 Economics of Distribution

CO-OPERATIVE MEDICAL SECRETARIAL CURRICULUM

This curriculum requires a minimum of 107 quarter hours for graduation. It is of special interest to young women with good mental and personal traits and a sincere desire to be of service to the community.

Part-time work experience is provided in this curriculum, in addition to technical and general background training, in an office of a doctor, dentist, or hospital. The student is assigned to one of these offices on a half-day basis, with the other half-day in class to discuss problems and

techniques in connection with the work-experience; as well as further study in technical subjects.

This curriculum leads to such positions, in the medical field, as receptionist-secretary, x-ray secretary and record clerk, hospital records clerk, or secretary in the office of a physician, dentist, or hospital.

First Term	Clock Hours	Quarter Hours
100G-3 English Fundamentals	3	3
121G-5 Problems of American Democracy	5	5
101S-3 Typewriting I	5	3
104S-7 Shorthand Theory	10	7
142G-4 Psychology of Human Relations	4	4
Second Term	Clock Hours	Quarter Hours
204S-5 Dictation I	5	5
207S-2 Transcription I	5	2
102S-3 Typewriting II	5	3
141G-5 Introduction to Physiology	5	5
101G-3 Business Correspondence	3	3
Third Term	Clock Hours	Quarter Hours
206S-5 Dictation II	5	5
220S-2 Transcription II	5	2
103S-3 Typewriting III	5	3
125S-2 Personality Development I	2	2
Elective		3
Fourth Term	Clock Hours	Quarter Hours
225S-5 Medical Dictation I	5	5
226S-2 Medical Transcription I	5	2
104B-5 Secretarial Accounting	5	5
136G-5 Introductory Sociology	5	5
Fifth Term	Clock Hours	Quarter Hours
227S-5 Medical Dictation II	5	5
228S-2 Medical Transcription II	5	2
107S-2 Filing	4	2
223S-5 Secretarial Office Procedure	5	5
126S-2 Personality Development II	2	2
Sixth Term	Clock Hours	Quarter Hours
215S-4 Work Study Problems	4	4
218S-5 Co-operative Medical Secretarial Techniques	15	4
201X-2 Job Orientation	3	2
Elective		7

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 224S-5 Legal Dictation Shortcuts
- 127B-4 Business Law I
- 227B-5 Office Administration and Supervision
- 101N-3 Drawing and Composition I
- 102N-3 Drawing and Composition II
- 101B-7 Accounting I
- 116G-4 Principles of Speech
- 101K-3 Calculating Machines I

EXECUTIVE SECRETARIAL CURRICULUM

This curriculum requires a minimum of 107 quarter hours for graduation. It is provided for the student who desires to qualify for the more interesting and responsible positions in business, professional, and industrial offices. The courses in this curriculum which provide personality and business background training greatly enhance promotional possibilities.

First Term	Clock Hours	Quarter Hours
100G-3 English Fundamentals	3	3
101S-3 Typewriting I	5	3
121G-5 Problems of American Democracy	5	5
107S-2 Filing	4	2
125S-2 Personality Development I	2	2
Elective		2
Second Term	Clock Hours	Quarter Hours
102G-3 English Problems Analysis	3	3
102S-3 Typewriting II	5	3
104S-7 Shorthand Theory	10	7
116G-4 Principles of Speech	4	4
142G-4 Psychology of Human Relations	4	4
Third Term	Clock Hours	Quarter Hours
101G-3 Business Correspondence	3	3
103S-3 Typewriting III	5	3
204S-5 Dictation I	5	5
207S-2 Transcription I	5	2
101K-3 Calculating Machines I	5	3
Fourth Term	Clock Hours	Quarter Hours
127B-4 Business Law I	4	4
205S-3 Typewriting IV	5	3
206S-5 Dictation II	5	5
220S-2 Transcription II	5	2
104B-5 Secretarial Accounting	5	5
Fifth Term	Clock Hours	Quarter Hours
209S-5 Dictation III	5	5
221S-2 Transcription III	5	2
208S-2 Typewriting V	3	2
223S-5 Secretarial Office Procedures	5	5
Elective		3

Sixth Term	Clock Hours	Quarter Hours
233S-5 Dictation IV	5	5
234S-2 Transcription IV	5	2
210S-2 Typewriting VI	3	2
227B-5 Office Administration and Supervision	5	5
126S-2 Personality Development II	2	2
201X-2 Job Orientation	3	2

Alternative Sixth Term	Clock Hours	Quarter Hours
227B-5 Office Administration and Supervision	5	5
126S-2 Personality Development II	2	2
210S-2 Typewriting VI	3	2
214S-5 Co-operative Secretarial Experience	15	5

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirement. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 101B-7 Accounting I
- 102B-5 Accounting II
- 102K-3 Calculating Machines II
- 136G-5 Introductory Sociology
- 101N-3 Drawing and Composition I
- 102N-3 Drawing and Composition II
- 227R-3 Personnel Management
- 279R-3 Public Relations
- Mus. 100-3 Music Understanding

LEGAL SECRETARIAL CURRICULUM

This curriculum requires a minimum of 107 quarter hours for graduation. It provides a proper balance in the secretarial skills and in the special and general knowledge a trained legal secretary needs. It is designed to contribute to the graduate's success as a citizen as well as in the special field of a legal secretary. Students in this curriculum may choose a full schedule of classes in the sixth term, or they may choose co-operative part-time work experience in a lawyer's office. Graduates from this curriculum secure positions as legal secretaries with attorneys, judges, and legal consultants.

First Term	Clock Hours	Quarter Hours
100G-3 English Fundamentals	3	3
101S-3 Typewriting I	5	3
121G-5 Problems of American Democracy	5	5
107S-2 Filing	4	2
125S-2 Personality Development I	2	2
142G-4 Psychology of Human Relations	4	4

Second Term	Clock Hours	Quarter Hours
102G-3 English Problems Analysis	3	3
102S-3 Typewriting II	5	3

104S-7	Shorthand Theory	10	7
116G-4	Principles of Speech	4	4
	Elective		3
Third Term		Clock Hours	Quarter Hours
101G-3	Business Correspondence	3	3
103S-3	Typewriting III	5	3
204S-5	Dictation I	5	5
207S-2	Transcription I	5	2
101K-3	Calculating Machines I	5	3
Fourth Term		Clock Hours	Quarter Hours
127B-4	Business Law I	4	4
205S-3	Typewriting IV	5	3
225S-5	Medical Dictation I	5	5
226S-2	Medical Transcription I	5	2
104B-5	Secretarial Accounting	5	5
Fifth Term		Clock Hours	Quarter Hours
226B-4	Business Law II	4	4
224S-5	Legal Dictation Shortcuts	5	5
223S-5	Legal Office Procedures	5	5
230S-2	Legal Transcription I	5	2
126S-2	Personality Development II	2	2
Sixth Term		Clock Hours	Quarter Hours
233S-5	Dictation IV	5	5
234S-2	Transcription IV	5	3
210S-2	Typewriting VI	3	2
231S-2	Court Room Orientation	2	2
227B-5	Office Administration and Supervision	5	5
201X-2	Job Orientation	3	2
Alternative Sixth Term		Clock Hours	Quarter Hours
210S-2	Typewriting VI	3	2
231S-2	Court Room Orientation	2	2
227B-5	Office Administration and Supervision	5	5
232S-5	Work Experience	20	5

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 101B-7 Accounting I
- 102B-5 Accounting II
- 102K-3 Calculating Machines II
- 136G-5 Introductory Sociology
- 101N-3 Drawing and Composition I
- 102N-3 Drawing and Composition II
- 227R-3 Personnel Management
- 279R-3 Public Relations
- Mus. 100-3 Music Understanding

CO-OPERATIVE RETAIL TRAINING CURRICULA

Specialized retail training is offered in (1) Apparel and Department Store Merchandising, (2) Grocery and Food Merchandising, (3) Hardware, Furniture, Appliance, and Farm Implement Merchandising. Specialized courses are also available in Advertising, Display, and Retail Management Problems.

High school graduates planning to enter the field of retailing, and adults who are now employed who are seeking more rapid advancement, will be able to combine on-the-job experience with intensive, specialized study in classes under the direction of instructors experienced in retailing and expert in personnel training.

PURPOSE

First year program: To develop salespeople in the fields of men's wear, women's wear, children's wear, and shoe merchandising; grocery and food merchandising; and hardware, furniture, appliance and farm implement merchandising.

Second year program: To build sales ability, abilities in advertising, window display, buying, department management, and to build a solid foundation for future store management or store ownership.

Additional course offerings: Courses from advertising art, accounting, and wood technology provide added strength to the program or aid the student in further specialization in advertising, display, or accounting areas.

PLACEMENT

The Vocational-Technical Institute is in constant touch with the leading retail stores in Illinois, Indiana, Kentucky, and Missouri. The Placement Service of the University and the retail co-ordinators will aid its graduates in securing full-time employment.

APPAREL AND DEPARTMENT STORE MERCHANDISING CURRICULUM

This curriculum requires 96 weeks to complete and a minimum of 135 quarter hours for graduation.

First Year

First and Second Months (On Campus)	Clock Hours	Quarter Hours
181R-3 Textile Information I (Natural Fibers)	5	3
126R-3 Introduction to Retailing	5	3
125R-3 Customer Sales Relations	5	3
100G-3 English Fundamentals	5	3
104G-5 Mathematics Fundamentals	7	5
or		
105G-5 Algebra Fundamentals	3	2
Elective		2
Third and Fourth Months (Off Campus)	Clock Hours	Quarter Hours
101R-8 Co-operative Retail Experience	40	8
Fifth and Sixth Months (On Campus)	Clock Hours	Quarter Hours
182R-3 Textile Information II (Synthetic Fibers)	5	3
128R-2 Store Policies Affecting Salespeople	3	2

175R-3	Apparel Salesmanship	5	3
176N-1	Color, Line, and Design	4	1
180N-2	Show Card Lettering	8	2
116G-4	Principles of Speech	6	4

Seventh and Eighth Months (Off Campus)		Clock Hours	Quarter Hours
102R-8	Co-operative Retail Experience	40	8

Ninth and Tenth Months (On Campus)		Clock Hours	Quarter Hours
183R-3	Product Information (leathers, metals, etc.)	5	3
121G-5	Problems of American Democracy	5	5
177G-2	Economics of Distribution	3	2
178R-3	Non-selling Responsibilities	5	3
127R-3	Specialized Selling (e.g., how to sell hats, suits, coats, shoes, yard goods)	5	3

Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
103R-8	Co-operative Retail Experience	40	8

Second Year

First and Second Months (On Campus)		Clock Hours	Quarter Hours
279G-3	Public Relations-Community Problems	5	3
275R-3	Retail Advertising	5	3
281B-2	Retail Records I	3	2
127B-4	Business Law I	6	4
280R-3	Retail Credits and Collections	5	3

Third and Fourth Months (Off Campus)		Clock Hours	Quarter Hours
201R-8	Co-operative Retail Experience	40	8

Fifth and Sixth Months (On Campus)		Clock Hours	Quarter Hours
276R-3	Fundamentals of Buying	5	3
277G-2	Government Relations	3	2
284R-3	Window Display	5	3
282B-2	Retail Records II	3	2
225R-3	Department Management	5	3

Seventh and Eighth Months (Off Campus)		Clock Hours	Quarter Hours
202R-8	Co-operative Retail Experience	40	8

Ninth and Tenth Months (On Campus)		Clock Hours	Quarter Hours
226R-3	Establishing a Retail Business	5	3
101G-3	Business Correspondence	5	3
227R-3	Personnel Management	5	3
204R-3	Interior Display-Store Layout	5	3
283B-2	Retail Records III (Taxes, Insurance, Financial Reports, etc.)	3	2

Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
203R-8	Co-operative Retail Experience	40	8

Recommended electives:

- 140N-3 Advertising Illustration
- 101N-3 Drawing and Composition I
- 125N-3 Figure Drawing I
- 220N-3 to 12 Fashion Illustration I
- 130N-3 Lettering and Layout I
- 201N-3 to 12 Advertising Layout and Production I
- 134R-3 Display (Hard Lines) IIA
- 135R-3 Display (Grocery) IIB
- 234R-2 Merchandise Control Systems
- 232R-2 Retail Accounting Systems and Devices
- 101S-3 Typewriting I
- 101K-3 Calculating Machines I
- 126B-3 Fundamentals of Business
- 107G-5 Technical Mathematics
- 142G-4 Psychology of Human Relations

FOODS MERCHANDISING CURRICULUM

This curriculum requires 96 weeks to complete and a minimum of 135 quarter hours for graduation.

First Year

First and Second Months (On Campus)	Clock Hours	Quarter Hours
129R-2 Fruit and Vegetable Merchandise	3	2
126R-3 Introduction to Retailing (Special emphasis on the development of the modern retail food business)	5	3
125R-3 Customer Sales Relations	5	3
100G-3 English Fundamentals	5	3
104G-5 Mathematics Fundamentals	7	5
or		
105G-2 Algebra Fundamentals	3	2
Elective		2
Third and Fourth Months (Off Campus)	Clock Hours	Quarter Hours
101R-8 Co-operative Retail Experience	40	8
Fifth and Sixth Months (On Campus)	Clock Hours	Quarter Hours
130R-2 Frozen Food Merchandising	3	2
129R-2 Store Policies	3	2
176N-1 Color, Line, and Design	4	1
131R-3 Food Salesmanship	5	3
180N-2 Show Card Lettering	8	2
116G-4 Principles of Speech	6	4
Elective		2
Seventh and Eighth Months (Off Campus)	Clock Hours	Quarter Hours
102R-8 Co-operative Retail Experience	40	8

Ninth and Tenth Months (On Campus)		Clock Hours	Quarter Hours
183R-3	Product Information (Foods Departments Emphasis)	5	3
121G-5	Problems of American Democracy	5	5
177G-2	Economics of Distribution	3	2
178R-3	Non-Selling Responsibilities	5	3
127R-3	Specialized Selling	5	3
	Elective		2

Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
103R-8	Co-operative Retail Experience (Produce, Dairy, Bakery Goods, Grocery)	40	8

Second Year

First and Second Months (On Campus)		Clock Hours	Quarter Hours
279G-3	Public Relations-Community Problems	5	3
275R-3	Retail Advertising	5	3
281B-2	Retail Records I	3	2
127B-4	Business Law I	6	4
280R-3	Retail Credits and Collections	5	3
	Elective		2

Third and Fourth Months (Off Campus)		Clock Hours	Quarter Hours
201R-8	Co-operative Retail Experience	40	8

Fifth and Sixth Months (On Campus)		Clock Hours	Quarter Hours
276R-3	Fundamentals of Buying	5	3
277R-2	Government Relations	3	2
284R-3	Window Display	5	3
282B-2	Retail Records II	3	2
225R-3	Department Management (Grocery)	5	3
	Elective		2

Seventh and Eighth Months (Off Campus)		Clock Hours	Quarter Hours
202R-8	Co-operative Retail Experience	40	8

Ninth and Tenth Months (On Campus)		Clock Hours	Quarter Hours
226R-3	Establishing a Retail Business	5	3
101G-3	Business Correspondence	5	3
227R-3	Personnel Management	5	3
204R-3	Interior Display-Store Layout	5	3
283B-2	Retail Records III (Taxes, Insurance, Financial Reports)	3	2
	Elective		2

Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
203R-8	Co-operative Retail Experience	40	8

Recommended electives:

- 140N-3 Advertising Illustration
- 101N-3 Drawing and Composition I

125N-3	Figure Drawing I
220N-3	to 12 Fashion Illustration I
130N-3	Lettering and Layout I
201N-3	to 12 Advertising Layout and Production I
134R-3	Display (Hard Lines) IIA
135R-3	Display (Grocery) IIB
234R-2	Merchandise Control Systems
232R-2	Retail Accounting Systems and Devices
101S-3	Typewriting I
101K-3	Calculating Machines I
126B-3	Fundamentals of Business
107G-5	Technical Mathematics
142G-4	Psychology of Human Relations

HARDLINE MERCHANDISING CURRICULUM

This curriculum requires 96 weeks to complete and a minimum of 135 quarter hours for graduation.

First Year

First and Second Months (On Campus)	Clock Hours	Quarter Hours
133R-3 Hardline Information I (Hardware, Ceramics, Glassware, Furniture, Plastics, Appliances, etc.)	5	3
126R-3 Introduction to Retailing	5	3
125R-3 Customer Sales Relations	5	3
100G-3 English Fundamentals	5	3
104G-5 Mathematics Fundamentals	7	5
or		
105G-5 Algebra Fundamentals	3	2
Third and Fourth Months (Off Campus)	Clock Hours	Quarter Hours
101R-8 Co-operative Retail	40	8
Fifth and Sixth Months (On Campus)	Clock Hours	Quarter Hours
184R-3 Product Information II (Appliances, etc.)	5	3
128R-2 Store Policies Affecting Salespeople	3	2
132R-3 Hardline Setting	5	3
176N-1 Color, Line, and Design	4	1
180N-2 Show Card Lettering	8	2
116G-4 Principles of Speech	6	4
Elective		2
Seventh and Eighth Months (Off Campus)	Clock Hours	Quarter Hours
102R-8 Co-operative Retail Experience	40	8
Ninth and Tenth Months (On Campus)	Clock Hours	Quarter Hours
185R-3 Product Information III	5	3
177G-2 Economics of Distribution	3	2
178R-3 Non-Selling Responsibilities	5	3

127R-3	Specialized Selling (e.g., How to sell appliances, home furnishings, glassware, ceramics, plastics, hardware, etc.)	5	3
121G-5	Problems of American Democracy	5	5
Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
103R-8	Co-operative Retail Experience	40	8

Second Year

First and Second Months (On Campus)		Clock Hours	Quarter Hours
279G-3	Public Relations-Community Problems	5	3
275R-3	Retail Advertising	5	3
281B-2	Retail Records I	3	2
127B-4	Business Law I	6	4
280R-3	Retail Credits and Collections	5	3
Third and Fourth Months (Off Campus)		Clock Hours	Quarter Hours
201R-8	Co-operative Retail Experience	40	8
Fifth and Sixth Months (On Campus)		Clock Hours	Quarter Hours
276R-3	Fundamentals of Buying	5	3
277G-2	Government Relations	3	2
284R-3	Window Display	5	3
282B-2	Retail Records II	3	2
225R-3	Department Management	5	3
Seventh and Eighth Months (Off Campus)		Clock Hours	Quarter Hours
202R-8	Co-operative Retail Experience	40	8
Ninth and Tenth Months (On Campus)		Clock Hours	Quarter Hours
226R-3	Establishing a Retail Business	5	3
101G-3	Business Correspondence	5	3
227R-3	Personnel Management	5	3
204R-3	Interior Display-Store Layout	5	3
283B-2	Retail Records III (Taxes, Insurance, Financial Reports, etc.)	3	2
Eleventh and Twelfth Months (Off Campus)		Clock Hours	Quarter Hours
203R-8	Co-operative Retail Experience	40	8

Recommended electives:

140N-3	Advertising Illustration
101N-3	Drawing and Composition I
125N-3	Figure Drawing I
220N-3-12	Fashion Illustration I
130N-3	Lettering and Layout I
201N-3-12	Advertising Layout and Production I
134R-3	Display (Hard Lines) IIA
135R-3	Display (Grocery) IIB
234R-2	Merchandise Control Systems

232R-2	Retail Accounting Systems and Devices
101S-3	Typewriting I
101K-3	Calculating Machines I
126B-3	Fundamentals of Business
142G-4	Psychology of Human Relations
107G-5	Technical Mathematics

ASSOCIATE IN TECHNOLOGY DEGREE PROGRAMS

The purpose of the associate degree programs in technology is to give the student a broad foundation in special subjects in the technical field, together with sufficient knowledge of theoretical principles to prepare him for successful participation in the industrial world.

The programs also include courses in the field of general education to enable the student to gain an understanding of problems encountered in living and working within his community.

Graduates are qualified for positions such as estimators, technical assistants, draftsmen, engineering aides, commercial artists, servicemen, factory representatives, and technicians in the fields of radio, electronics, television, building construction, dental laboratory, industrial woodworking, machine tool, and printing.

The courses are taught by instructors who have had industrial experience in their respective fields in addition to their professional education. The laboratories are equipped with the modern instruments and machines comparable to those used in industry and reflecting the needs in technical employment. Associate programs in technology are six quarters or more in length and require a minimum of 104-110 quarter hours for graduation.

ARCHITECTURAL DRAFTING AND DESIGN TECHNOLOGY

The architectural drafting and design curriculum requires a minimum of 107 quarter hours for graduation. It provides training for students in architectural design and building construction. The curriculum contains a well-balanced program of general and technical courses in architecture which will provide the student with the basic knowledge required in the architectural profession and in the building industry.

The curriculum leads to employment as designers, draftsmen, and junior engineers in architects offices, residential builders, building inspectors and as draftsmen, estimators, detailers, and as construction supervisors in the construction and building materials organizations.

First Term		Clock Hours	Quarter Hours
146D-3	Architectural Rendering I	6	3
110D-7	Architectural Projections I	15	7
150D-3	Introduction to Architecture	3	3
104G-5	Mathematics Fundamentals	5	5
or			
105G-2	Algebra Fundamentals	2	2
Second Term		Clock Hours	Quarter Hours
147D-3	Architectural Rendering II	6	3
121D-4	Architectural Design I	12	4

280D-3	Architectural History	3	3
121G-5	Problems of American Democracy	5	5
107G-5	Technical Mathematics	5	5
100G-3	English Fundamentals	3	3

Third Term		Clock Hours	Quarter Hours
148D-3	Architectural Rendering III	6	3
220D-6	Architectural Design II	12	6
151D-3	Materials and Methods of Construction I	6	3
152D-2	Site Engineering	4	2
111G-4	Basic Physics I	6	4

Fourth Term		Clock Hours	Quarter Hours
246D-3	Architectural Rendering IV	6	3
221D-6	Architectural Design III	12	6
250D-3	Materials and Methods of Construction II	6	3
142G-4	Psychology of Human Relations Elective	4	4

Fifth Term		Clock Hours	Quarter Hours
222D-6	Architectural Design IV	12	6
251D-3	Materials and Methods of Construction III	6	3
258D-4	Structural Elements	4	4
201X-2	Job Orientation Elective	3	2
			3 to 6

Sixth Term		Clock Hours	Quarter Hours
259D-7	Architectural Design V	15	7
252D-7	Materials and Methods of Construction V	15	7
254D-4	Mechanical Equipment of Buildings	4	4

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

285D-3	Architectural Design Analysis I
282D-3	Interior Design I
283D-3	Architectural Construction Analysis I
284D-3	Structural Design of Buildings I
232G-4	Management and Labor Relations Problems
116G-4	Principles of Speech
101G-3	Business Correspondence
126B-3	Fundamentals of Business
101S-3	Typewriting I
125F-4	Production and Processing Methods
110G-3	Trigonometry

AUTOMOTIVE TECHNOLOGY

The automotive technology curriculum requires a minimum of 107 quarter hours for graduation. It provides an opportunity for the student to receive technical training in the maintenance areas of front end alignment, hydraulic and power brakes, power steering, automotive refinishing, engine rebuilding, carburetion, electrical testing, motor tune-up, testing and repair of electrical accessories, and drive trains, including the several automatic transmissions. This program prepares the student for employment in service and maintenance departments of automobile dealers and garages.

First Term		Clock Hours	Quarter Hours
101A-7	Auto Shop I	15	7
125A-5	Theory of Internal Combustion Engines	5	5
104G-5	Mathematics Fundamentals	5	5
	or		
105G-2	Algebra Fundamentals	2	2
100G-3	Fundamentals of English	3	3
Second Term		Clock Hours	Quarter Hours
102A-7	Auto Shop II	15	7
126A-5	Chassis and Brake Systems	5	5
111G-4	Basic Physics I	6	4
	Elective		3
Third Term		Clock Hours	Quarter Hours
103A-7	Auto Shop III	15	7
127A-5	Theory of Ignition and Carburetion	5	5
128A-3	Transmissions and Drive Trains	3	3
142G-4	Psychology of Human Relations	4	4
Fourth Term		Clock Hours	Quarter Hours
201A-7	Auto Shop IV	15	7
220A-5	Automatic Transmissions	5	5
121G-5	Problems of American Democracy	5	5
116G-4	Principles of Speech	4	4
Fifth Term		Clock Hours	Quarter Hours
202A-7	Auto Shop V	15	7
226A-3	Auto-Body Rebuilding and Refinishing	3	3
229B-2	Record Keeping	5	2
	Elective		3
Sixth Term		Clock Hours	Quarter Hours
203A-7	Auto Shop VI	15	7
227A-3	Engine Rebuilding	3	3
201X-2	Job Orientation	3	2
	Electives		3-6

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in

lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 107G-5 Mathematics III
- 175M-3 Basic Machine Shop Practice
- 175W-3 Oxy-Acetylene and Electric Arc Welding
- 101S-3 Typewriting I
- 175D-3 Technical Drafting I
- 125R-3 Customer Sales Relations
- 275B-5 Credits and Collections
- 232G-4 Management and Labor Relations Problems
- 107G-5 Technical Mathematics

BUILDING CONSTRUCTION TECHNOLOGY

The building construction technology curriculum requires a minimum of 107 quarter hours for graduation. It provides training for positions in the maintenance, production, construction, sales and management fields of the building industry. The courses provide training in the basic fundamentals and the construction methods, materials, equipment, procedures, and structures that are essential in a successful building operation. Training of personnel for home building, the nation's largest industry, is emphasized, although specialization for another field is possible through careful selection of electives.

The courses are designed to train the technician who is the link between the architect and the craftsman who executes the work. Appropriate periods of gaining practical experience and knowledge are necessary to supplement the academic training before the education of the building construction technician is completed. A minimum of ten weeks practical field experience of an approved nature is required prior to graduation. Subsequent to graduation, the student should plan to spend an additional period gaining practical experience which is essential for positions of leadership in the home building industry.

The well-balanced program of studies and training leads to positions as: active home builders, supervisors, foremen, estimators, building inspectors, timekeepers, building materials salesmen, and materials expeditors in the industry.

First term	Clock Hours	Quarter Hours
154D-3 Introduction to Residential Building	3	3
115D-7 Residential Architecture I	15	7
146D-3 Architectural Rendering I	6	3
104G-5 Mathematics Fundamentals	5	5
or		
105G-2 Algebra Fundamentals	2	2
Second Term	Clock Hours	Quarter Hours
151D-3 Materials and Methods of Construction I	6	3
116D-3 Residential Architecture II	6	3
121G-5 Problems of American Democracy	5	5

100G-3	English Fundamentals	3	3
107G-5	Technical Mathematics	5	5
200C-2	Economics for Home Builders	2	2
Third Term		Clock Hours	Quarter Hours
250D-3	Materials and Methods of Construction II	6	3
117D-3	Residential Architecture III	6	3
152D-2	Site Engineering	4	2
142G-4	Psychology of Human Relations	4	4
247D-4	Mechanics and Strength of Materials	6	4
265D-2	Sanitary Services for Residential Buildings	3	2
Fourth Term		Clock Hours	Quarter Hours
251D-3	Materials and Methods of Construction III	6	3
258D-4	Structural Elements	4	4
153D-3	Site Planning and Construction I	6	3
266D-2	Electrical Services for Residential Buildings	3	2
210D-3	Construction I Elective	6	3 3
Fifth Term		Clock Hours	Quarter Hours
252D-7	Materials and Methods of Construction IV	15	7
201X-2	Job Orientation	3	2
250B-3	Real Estate for Home Builders	3	3
267D-2	Heating and Air Conditioning for Residential Buildings	3	2
211D-3	Construction II Elective	6	3 3
Sixth Term		Clock Hours	Quarter Hours
260D-5	Materials and Methods of Construction V	9	5
232G-4	Labor Management Relations Problems	4	4
251B-3	Record Keeping for Home Builders	3	3
201G-2	Ethics for Home Builders	3	2
212D-3	Construction III	6	3

Students are required to take a comprehensive examination in technical subjects prior to graduation. The examination will be based on subject matter covered in the technical courses required of all students enrolled in this curriculum. Results of this examination will be available to prospective employers.

Electives may be taken upon recommendation of the student's adviser to complete the total credit hour requirements. Electives may also be taken in lieu of any of the required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 101S-3 Typewriting I
- 127B-3 Business Law I
- 130F-2 Lumber Seasoning
- 131F-2 Lumber Grading
- 128F-2 Wood Identification
- 282D-3 Interior Design I
- 284D-3 Structural Design of Building I
- 101G-3 Business Correspondence
- 116G-4 Principles of Speech
- 229F-4 Wood Finishing and Preservation
- 101K-3 Calculating Machines I
- 237B-3 Real Estate Appraisal
- 236B-5 Insurance Principles I

COMMERCIAL ART

Experienced commercial artists receive excellent incomes in an ever-growing field of art. This field of work offers continuous advancement for persons of ability and ambition. Graduates are demanded by a great variety of business firms such as publishers, printers, advertising agencies, department stores and television studios.

The curriculum requires a minimum of 102 quarter hours for graduation. It provides training and experience in sketching, drawing, and designing applied to commercial art. A professionally equipped commercial art studio is used for training purposes. Each student will be required to prepare a portfolio of his work before graduation.

One, or a combination of any two major fields, may be selected for special emphasis: (1) Advertising Layout and Production, (2) Advertising and Story Illustration, (3) Fashion Illustration, and (4) Lettering and Design.

First Term	Clock Hours	Quarter Hours
101N-3 Drawing and Composition I	6	3
125N-3 Figure Drawing I	6	3
130N-3 Lettering and Layout I	6	3
140N-3 Advertising Illustration I	6	3
100G-3 English Fundamentals	3	3
150N-3 Art Appreciation	3	3
Second Term	Clock Hours	Quarter Hours
102N-3 Drawing and Composition II	6	3
126N-3 Figure Drawing II	6	3
131N-3 Lettering and Layout II	6	3
141N-3 Advertising Illustration II	6	3
121G-5 Problems of American Democracy	5	5
Third Term	Clock Hours	Quarter Hours
103N-3 Drawing and Composition III	6	3
127N-3 Figure Drawing III	6	3
132N-3 Lettering and Layout III	6	3
142N-3 Advertising Illustration III	6	3
142G-4 Psychology of Human Relations	4	4

Fourth Term		Clock Hours	Quarter Hours
201N-3-12	Advertising Layout & Production	6-24	3-12
210N-3-12	Advertising & Story Illustration	6-24	3-12
220N-3-12	Fashion Illustration	6-24	3-12
230N-3-12	Lettering and Design I	6-24	3-12
	Elective		4
Fifth Term		Clock Hours	Quarter Hours
202N-3-12	Advertising Layout and Production	6-24	3-12
211N-3-12	Advertising & Story Illustration	6-24	3-12
221N-3-12	Fashion Illustration	6-24	3-12
231N-3-12	Lettering and Design II	6-24	3-12
	Elective		6
Sixth Term		Clock Hours	Quarter Hours
203N-3-12	Advertising Layout & Production	6-24	3-12
212N-3-12	Advertising & Story Illustration	6-24	3-12
222N-3-12	Fashion Illustration	6-24	3-12
232N-3-12	Lettering and Design III	6-24	3-12
201X-2	Job Orientation	3	2
	Elective		5

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

125J-5	Print Shop Theory I
175D-3	Technical Drafting I
146D-3	Architectural Rendering
225N-3	Figure Drawing IV
226N-3	Figure Drawing V
227N-3	Figure Drawing VI
183R-3	Product Information
275R-3	Advertising Apparel Merchandise
279R-3	Public Relations
280D-3	History of Architecture
282D-3	Interior Design
116G-4	Principles of Speech
101G-3	Business Correspondence

DENTAL LABORATORY TECHNOLOGY

An individual trained and educated to perform one or more phases of the dental laboratory procedures required in the fabrication of dental prosthetic appliances is a dental technician. The dental technician may work directly in a dentist's office or he may find employment in an approved dental laboratory.

The dental technology program requires a minimum of 104 quarter hours for graduation. It is designed to meet the high standards approved by the Council on Dental Education and the Council on Dental Trade and Laboratories of the American Dental Association.

First Term	Clock Hours	Quarter Hours
Dental Laboratory Practice I	17	8
Dental Laboratory Theory I	3	3
English Fundamentals	3	3
Mathematics Fundamentals	5	5
or		
Algebra Fundamentals	2	2
Second Term	Clock Hours	Quarter Hours
Dental Laboratory Practice II	17	8
Dental Laboratory Theory II	3	3
Chemical and Physical Principles	5	3
Oral Anatomy	2	2
Elements of Human Biology	2	2
Third Term	Clock Hours	Quarter Hours
Dental Laboratory Practice III	17	8
Dental Laboratory Theory III	3	3
Metallurgy—Precious Metals	5	3
Inorganic and Organic Chemistry	5	3
Fourth Term	Clock Hours	Quarter Hours
Dental Laboratory Practice IV	17	8
Dental Laboratory Theory IV	3	3
Problems of American Democracy	5	5
Metallurgy—Ferrous and Non Ferrous	5	3
Fifth Term	Clock Hours	Quarter Hours
Dental Laboratory Practice V	17	8
Dental Laboratory Theory V	3	3
Psychology of Human Relations	4	4
Elective		3
Sixth Term	Clock Hours	Quarter Hours
Dental Laboratory Practice VI	17	8
Dental Laboratory Theory VI	3	3
Orientation—Ethics and Jurisprudence	2	2
Electives		5

INDUSTRIAL WOOD TECHNOLOGY

The industrial wood technology curriculum requires a minimum of 104 quarter hours for graduation. It is designed to prepare students for employment as wood technicians in saw mills, plywood plants, sash, door and millwork factories, and furniture industries. Graduates will be well grounded in all phases of woodworking machine operation, maintenance, knife and saw grinding, materials handling, seasoning and quality control.

Training, with emphasis on production methods, will be carried out in the wood products pilot plant which duplicates the most modern wood using plants in the country. The plant is operated jointly by the U. S. Forest Service and the Institute.

Opportunities for specialization may be available for those students interested in taking courses beyond the minimum quarter hour requirement.

First Term	Clock Hours	Quarter Hours
101F-7 Industrial Woodworking I	15	7
125F-4 Production and Processing Methods I	5	4
104G-5 Mathematics Fundamentals	5	5
or		
105G-2 Algebra Fundamentals	2	2
175D-3 Technical Drafting I	5	3
Second Term	Clock Hours	Quarter Hours
102F-7 Industrial Woodworking II	15	7
126F-4 Production and Processing Methods II	5	4
100G-3 English Fundamentals	3	3
111G-4 Basic Physics I	6	4
Third Term	Clock Hours	Quarter Hours
103F-7 Industrial Woodworking III	15	7
127F-4 Production and Processing Methods III	5	4
229F-4 Wood Finishing and Preservative	8	4
131F-2 Lumber Grading	2	2
Fourth Term	Clock Hours	Quarter Hours
201F-7 Industrial Woodworking IV	15	7
225F-4 Production and Processing Methods IV	5	4
121G-5 Problems of American Democracy	5	5
142G-4 Psychology of Human Relations	4	4
Fifth Term	Clock Hours	Quarter Hours
202F-7 Industrial Woodworking V	15	7
226F-4 Production and Processing Methods V	5	4
Electives		6
Sixth Term	Clock Hours	Quarter Hours
203F-7 Industrial Woodworking VI	15	7
227F-4 Productions and Processing Methods VI	5	4
201X-2 Job Orientation	3	2
Electives		3 to 5

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 128F-2 Wood Identification
- 130F-2 Lumber Seasoning
- 125R-3 Customer Sales Relations
- 116G-4 Principles of Speech
- 101S-3 Typewriting I
- 146D-3 Architectural Rendering I
- 229B-2 Record Keeping
- 232G-4 Management and Labor Relations Problems
- 101G-3 Business Correspondence

MACHINE DRAFTING AND DESIGN TECHNOLOGY

The machine drafting and design curriculum requires a minimum of 103 quarter hours for graduation. It is organized to provide students with the basic knowledges and abilities for employment in industry as draftsmen, machine and tool designers, planners, detailers and inspectors.

In this curriculum the students learn the language of engineering; the composition, the properties, and the heat treatment of materials; the applied mathematics; mechanisms; and the art and sciences of the design of those machines which are essentials of manufacturing processes.

First Term	Clock Hours	Quarter Hours
101D-7 Machine Drafting and Design I	15	7
125D-3 Machine Drafting and Design Theory I	3	3
104G-5 Fundamentals of Mathematics	5	5
or		
105G-2 Algebra Fundamentals	2	2
100G-3 English Fundamentals	3	3
Second Term	Clock Hours	Quarter Hours
102D-7 Machine Drafting and Design II	15	7
126D-3 Machine Drafting and Design Theory II	3	3
107G-5 Technical Mathematics	5	5
176M-3 Manufacturing Processes I	5	3
Third Term	Clock Hours	Quarter Hours
103D-7 Machine Drafting and Design III	15	7
127D-3 Machine Drafting and Design Theory III	3	3
110G-3 Trigonometry	3	3
117M-3 Manufacturing Processes II	5	3
Fourth Term	Clock Hours	Quarter Hours
201D-7 Machine Drafting and Design IV	15	7
225D-3 Machine Drafting and Design Theory IV	3	3
111G-4 Basic Physics I	6	4
275M-3 Elementary Metallurgy	5	3
Fifth Term	Clock Hours	Quarter Hours
202D-7 Machine Drafting and Design V	15	7
226D-3 Machine Drafting and Design Theory V	3	3
142G-4 Psychology of Human Relations	4	4
121G-5 Problems of American Democracy	5	5
Sixth Term	Clock Hours	Quarter Hours
203D-7 Machine Drafting and Design VI	15	7
227D-3 Machine Drafting and Design Theory VI	3	3
201X-2 Job Orientation	3	2
Electives		5 to 8

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

112G-4	Basic Physics II
101G-3	Business Correspondence
229B-2	Record Keeping
185W-3	Oxygen-Acetylene and Electric Arc Welding
101S-3	Typewriting I
116G-4	Principles of Speech
127M-3	Precision Measurement
232G-4	Management and Labor Relations Problems

MACHINE TOOL TECHNOLOGY

The machine tool curriculum requires a minimum of 103 quarter hours for graduation. It is planned to prepare the students for employment as operators of mechanical equipment, machines and machine tools, tool inspectors, planners, and tool room supervisors.

This curriculum includes those phases of machine shop practice as performed either by the use of hand tools or by power driven machine tools. In addition, the students will use precision measuring instruments and will be required to work within specified tolerances relevant to industrial standards.

The machine shop practice will be supplemented by courses designed to further acquaint the students with the necessary technical information pertaining to the machine tool industry.

First Term	Clock Hours	Quarter Hours
101M-7 Machine Shop I	15	7
125M-5 Lathe and Bench Work Theory	5	5
104G-5 Mathematics Fundamentals	5	5
or		
105G-2 Algebra Fundamentals	2	2
175D-3 Technical Drafting I	5	3
Second Term	Clock Hours	Quarter Hours
102M-7 Machine Shop II	15	7
126M-3 Shaper and Planer Theory	3	3
100G-3 English Fundamentals	3	3
142G-4 Psychology of Human Relations	4	4
Third Term	Clock Hours	Quarter Hours
103M-7 Machine Shop III	15	7
127M-3 Precision Measurement	3	3
121G-5 Problems of American Democracy	5	5
107G-5 Technical Mathematics	5	5
Fourth Term	Clock Hours	Quarter Hours
201M-7 Machine Shop IV	15	7
225M-3 Milling Machine Theory	3	3
176D-3 Technical Drafting II	5	3
111G-4 Basic Physics I	6	4
Fifth Term	Clock Hours	Quarter Hours
202M-7 Machine Shop V	15	7
226M-3 Grinding Techniques	3	3

275M-3	Elementary Metallurgy	5	3
	Elective		3
Sixth Term		Clock Hours	Quarter Hours
203M-7	Machine Shop VI	15	7
227M-3	Production Machines and Tooling	3	3
201X-2	Job Orientation	3	2
	Electives		6

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

110G-3	Trigonometry
112G-4	Basic Physics II
116G-4	Principles of Speech
101G-3	Business Correspondence
175W-3	Oxygen-Acetylene and Electric Arc Welding
232G-4	Management and Labor Relations Problems
229B-2	Record Keeping
177D-3	Technical Drafting III

PRINTING TECHNOLOGY

Employment opportunities in the graphic arts industry, composed of printing, publishing, and allied businesses, are available to students who have college training and are familiar with the technical processes of printing.

The printing technology curriculum requires a minimum of 105 quarter hours for graduation. It provides the opportunity for the students to become acquainted with all phases of letterpress printing. Students may specialize in floor work, press work, slug-casting machines, hand composition, etc.

First Term		Clock Hours	Quarter Hours
101J-7	Print Shop I	15	7
125J-5	Print Shop Theory I	5	5
100G-3	English Fundamentals	3	3
121G-5	Problems of American Democracy	5	5
Second Term		Clock Hours	Quarter Hours
102J-7	Print Shop II	15	7
126J-3	Print Shop Theory II	3	3
102G-3	English Problems Analysis	3	3
104G-5	Mathematics Fundamentals	5	5
	or		
105G-2	Algebra Fundamentals	2	2
Third Term		Clock Hours	Quarter Hours
103J-7	Print Shop III	15	7
127J-3	Print Shop Theory III	3	3
152J-3	Proofreading	3	3
153J-3	Printing Layout and Design	3	3

Fourth Term		Clock Hours	Quarter Hours
201J-7	Print Shop IV	15	7
225J-3	Print Shop Theory IV	3	3
142G-4	Psychology of Human Relations	4	4
101G-3	Business Correspondence	3	3
Fifth Term		Clock Hours	Quarter Hours
202J-7	Print Shop V	15	7
226J-3	Print Shop Theory V	3	3
130N-3	Lettering and Layout	6	3
	Electives		5
Sixth Term		Clock Hours	Quarter Hours
203J-7	Print Shop VI	15	7
227J-3	Print Shop Theory VI	3	3
251J-3	Estimating Costs	3	3
201X-2	Job Orientation	3	2
	Electives		3

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 127B-4 Business Law
- 127R-3 Specialized Selling
- 140N-3 Advertising and Illustration
- 177G-2 Economics of Distribution
- 116G-4 Principles of Speech
- 201N-3-12 Advertising Layout and Production

RADIO AND TELEVISION TECHNOLOGY

The radio and television curriculum requires a minimum of 105 quarter hours for graduation. It is planned to prepare students for employment in radio and television repair and maintenance as field technicians, shop repairmen, shop foremen, service managers, and shop owners. In addition, it provides the basic background for employment in the field of industrial electronics.

The course includes experiments of basic circuits and shop practice on radio, audio amplifier and television receivers using the test methods and instruments as recommended by the industry. The shop work will be supplemented by courses designed to furnish the necessary background and technical information pertaining to the radio, television, and electronic industry.

First Term		Clock Hours	Quarter Hours
101T-7	Radio and Television Shop I	15	7
125T-5	Principles of Radio and Electronics	5	5
104G-5	Mathematics Fundamentals	5	5
	or		
105G-2	Algebra Fundamentals	2	2
100G-3	English Fundamentals	3	3

Second Term		Clock Hours	Quarter Hours
102T-7	Radio and Television Shop II	15	7
126T-5	Communications	5	5
107G-5	Technical Mathematics	5	5
Third Term		Clock Hours	Quarter Hours
103T-7	Radio and Television Shop III	15	7
127T-5	Radio Service and Repair	5	5
112G-4	Basic Physics II	6	4
	Electives		3
Fourth Term		Clock Hours	Quarter Hours
201T-5	Radio and Television Shop IV	10	5
225T-5	Radio and Television Instruments	5	5
177D-3	Technical Drafting III	5	3
229B-2	Record Keeping	5	2
101G-3	Business Correspondence	3	3
Fifth Term		Clock Hours	Quarter Hours
202T-5	Radio and Television Shop V	10	5
226T-5	Television Theory and Test Methods	5	5
121G-5	Problems of American Democracy	5	5
142G-4	Psychology of Human Relations	4	4
Sixth Term		Clock Hours	Quarter Hours
203T-5	Radio and Television Shop VI	10	5
227T-5	Television Receivers	5	5
201X-2	Job Orientation	3	2
	Electives		3 to 5

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 125R-3 Customer Sales Relations
- 127R-3 Specialized Selling
- 111G-4 Basic Physics I
- 101S-3 Typewriting I
- 175D-3 Technical Drafting I
- 232G-4 Management and Labor Relations Problems
- 110G-3 Trigonometry
- 116G-4 Principles of Speech

CERTIFICATE PROGRAMS

BOOKKEEPING-CLERICAL CURRICULUM

This curriculum requires a minimum of 50 quarter hours for completion. It is offered for those students who are planning to enter business on the non-stenographic level. This curriculum leads to such jobs in business as clerk-typist, payroll clerk, inventory clerk, stock record clerk, and other general office clerical occupations.

First Term		Clock Hours	Quarter Hours
104-5	Mathematics Fundamentals	5	5
	or		
105G-2	Algebra Fundamentals	2	2
101S-3	Typewriting I	5	3
111L-5	Clerical Procedures	5	5
100G-3	English Fundamentals	3	3
101K-3	Calculating Machines I	5	3
Second Term		Clock Hours	Quarter Hours
102S-3	Typewriting II	5	3
121G-5	Problems of American Democracy	5	5
101B-7	Accounting I	10	7
125S-2	Personality Development I	2	2
126B-3	Fundamentals of Business	3	3
Third Term		Clock Hours	Quarter Hours
103S-3	Typewriting III	5	3
102K-3	Calculating Machines II	5	3
126S-2	Personality Development II	2	2
107S-2	Filing	4	2
201X-2	Job Orientation	3	2
	Electives		4

Electives may be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

116G-4	Principles of Speech
101G-3	Business Correspondence
127G-5	Economic Principles
103K-3	Calculating Machines III
109B-7	Departmental Accounting
136G-5	Introductory Sociology
101N-3	Drawing and Composition I
102N-3	Drawing and Composition II
125R-3	Customer Sales Relations
107G-5	Technical Mathematics

CALCULATING MACHINES CURRICULUM

This curriculum requires a minimum of 50 quarter hours for completion. It is planned to give training in calculating machine operation for those students who wish to become occupationally proficient. Considerable emphasis and drill is placed on proficiency in the operation of the major types of machines ordinarily used in business offices. This curriculum leads to such jobs in business as comptometer operator, audit clerk, bank posting machine operator, billing machine operator, and invoice clerk.

First Term		Clock Hours	Quarter Hours
100G-3	English Fundamentals	3	3
101K-3	Calculating Machines I	5	3

107S-2	Filing	4	2
101S-3	Typewriting I	5	3
104G-5	Mathematics Fundamentals	5	5
	or		
105G-2	Algebra Fundamentals	2	2
Second Term		Clock Hours	Quarter Hours
102K-3	Calculating Machines II	5	3
121G-5	Problems of American Democracy	5	5
102S-3	Typewriting II	5	3
125S-2	Personality Development I	2	2
	Electives		7
Third Term		Clock Hours	Quarter Hours
103K-3	Calculating Machines III	5	3
111L-5	Clerical Procedures	5	5
116G-4	Principles of Speech	4	4
126S-2	Personality Development II	2	2
201X-2	Job Orientation	3	2

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 142G-4 Psychology of Human Relations
- 107G-5 Technical Mathematics
- 101G-3 Business Correspondence
- 127G-5 Economic Principles
- 101B-7 Accounting I
- 109B-7 Departmental Accounting
- 136G-5 Introductory Sociology
- 101N-3 Drawing and Composition I
- 102N-3 Drawing and Composition II
- 125R-3 Customer Sales Relations
- 126B-3 Fundamentals of Business

COSMETOLOGY CURRICULUM

The Cosmetology curriculum requires a minimum of 59 quarter hours for completion.

Cosmetology is one of the registered trades under the supervision of the Department of Registration and Education of the State of Illinois. The standards for the trade are established by state law.

The course in cosmetology offered by the Institute meets State of Illinois standards as to the total time, teaching staff, equipment, facilities, library, and course content. The course is offered to meet the requirement of 1,000 hours of training.

Shampooing	Theory: Practical class theory; practical	50 hrs.
Facial Massage	Theory: Practical class theory; anatomy	120 hrs.
Electrical Devices	Theory: Practical class theory	40 hrs.

Scalp Treatment	Theory: Practical class theory; practical lectures	65 hrs.
Hair Tinting; Coloring; Bleaching	Theory: Practical class theory; practical	150 hrs.
Permanent Waving; Hair Pressing	Theory: Practical class theory; practical lectures	170 hrs.
Hairdressing	Thinning; trimming; shaping; all methods of curling except permanent waving and marcelling	275 hrs.
Sanitation and use of Antiseptics; Personal Hygiene	Theory: Practical	75 hrs.
First Aid; Duties of Dispensary Clerk		35 hrs.
Written Tests		
Study of Illinois Beauty Culture Laws; Department Rulings; Health Board Rules; Labor Laws; Workmen's Compensation Act, Etc.		12 hrs.
Salesmanship		36 hrs.

The curriculum, as outlined, is recommended. However, those students who must complete the requirements in three regular 12 weeks quarters should see the adviser of cosmetology to work out a training schedule.

First Term	Clock Hours	Quarter Hours
101C-6-12 Cosmetology Laboratory I	12-24	6-12
125C-5 Cosmetology Theory I	5	5
100G-3 English Fundamentals	3	3
Second Term	Clock Hours	Quarter Hours
102C-6-12 Cosmetology Laboratory II	12-24	6-12
126C-5 Cosmetology Theory II	5	5
127R-3 Specialized Selling	3	3
Third Term	Clock Hours	Quarter Hours
103C-6-12 Cosmetology Laboratory III	12-24	6-12
127C-5 Cosmetology Theory III	5	5
229B-2 Record Keeping	5	2
Fourth Term	Clock Hours	Quarter Hours
104C-6-12 Cosmetology Laboratory IV	12-24	6-12

PRACTICAL NURSING CURRICULUM

Practical nursing is now one of the registered trades under the licensing procedures of the State of Illinois Department of Registration and Education. The standards for the trade are established by this department.

In January, 1954, the Board of the National League for Nursing adopted the following definition of a practical nurse:

“A person prepared to care for the sick in a team relationship with registered professional nurses in hospitals and other institutions, public health agencies and industries, and also as a private practitioner in the homes of selected convalescent, subacutely and chronically ill patients. She gives household assistance when such assistance is necessary to the patient’s health and well-being. A practical nurse works only under the direct orders of a licensed physician or under the supervision of a registered nurse.”

The practical nursing program offered by the Vocational-Technical Institute meets the standards as set forth by the Department of Registration and Education as to time, staff, equipment, co-operating hospital facilities, and course content. The following procedures are included in the program:

- Maintaining suitable environment of the patient
- Maintaining good personal hygiene of the patient
- Providing for the maintenance of physical and mental well-being
- Carrying out or assisting with diagnostic procedures
- Carrying out therapeutic procedures

The practical nursing program includes 16 weeks of class work, and 32 weeks of hospital training in actual bedside care of patients in local affiliated hospitals. During clinical periods a minimum amount of earnings will be possible.

STENOGRAPHIC CURRICULUM

The stenographic curriculum requires a minimum of 62 quarter hours for completion. It contains only minimum essentials required in an initial stenographic position in business. This is an intensive curriculum in order to give practical training in a short time.

First Term	Clock Hours	Quarter Hours
100G-3 English Fundamentals	3	3
101S-3 Typewriting I	5	3
121G-5 Problems of American Democracy	5	5
107S-2 Filing	4	2
Electives		4
Second Term	Clock Hours	Quarter Hours
102G-3 English Problems Analysis	3	3
102S-3 Typewriting II	5	3
104S-7 Shorthand Theory	10	7
116G-4 Principles of Speech	4	4
125S-2 Personality Development I	2	2
Third Term	Clock Hours	Quarter Hours
101G-3 Business Correspondence	3	3
103S-3 Typewriting III	5	3
204S-5 Dictation I	5	5
207S-2 Transcription I	5	2
101K-3 Calculating Machines I	5	3
126S-2 Personality Development II	2	2

Fourth Term	Clock Hours	Quarter Hours
206S-5 Dictation II	5	5
220S-2 Transcription II	5	2
223S-5 Secretarial Office Procedures	5	5
201X-2 Job Orientation	3	2
Electives		1-5

Electives may be taken upon recommendation of the student's adviser to complete total credit hour requirements. Electives may also be taken in lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

104B-5	Secretarial Accounting
205S-3	Typewriting IV
208S-2	Typewriting V
142G-4	Psychology of Human Relations
102K-3	Calculating Machines II
136G-5	Introductory Sociology
127G-5	Economic Principles
101N-3	Drawing and Composition I
125R-3	Customer Sales Relations

WELDING

This curriculum requires a minimum of 54 quarter hours for completion. It provides training in the various types of welding equipment, the welding of mild steel in all positions, machine cutting, hand cutting, testing of welds and welding of non-ferrous metals. Each student is given individual attention in his shop training. This course has been designed to prepare the students for employment as tool room welders, construction welders, job shop welders, and welding inspectors.

First Term	Clock Hours	Quarter Hours
101W-7 Oxy-Acetylene Welding Shop	15	7
125W-5 Theory of Oxy-acetylene Welding	5	5
100G-3 English Fundamentals	3	3
104G-5 Mathematics Fundamentals	5	5

Second Term	Clock Hours	Quarter Hours
102W-7 Arc Welding Shop I	15	7
127W-5 Theory of Arc Welding	5	5
175D-3 Technical Drafting I	5	3
121G-5 Problems of American Democracy	5	5

Third Term	Clock Hours	Quarter Hours
103W-7 Arc Welding Shop II	15	7
275M-3 Elementary Metallurgy	5	3
201X-2 Job Orientation	3	2
Electives		4

Electives may be taken upon recommendation of the student's adviser to complete total credit hours requirements. Electives may also be taken in

lieu of any of the above required courses upon evidence of proficiency in an Institute placement test. Recommended electives are:

- 107G-5 Technical Mathematics
- 111G-4 Basic Physics I
- 112G-4 Basic Physics II
- 110G-3 Trigonometry
- 142G-4 Psychology of Human Relations
- 101G-3 Business Correspondence
- 229B-2 Record Keeping
- 116G-4 Principles of Speech

INSTITUTE COURSES

- 101A-7, 102A-7, 103A-7, 201A-7, 202A-7, 203A-7. *Auto Shop I, II, III, IV, V, VI.* Shop courses I through VI are correlated with the auto theory classes in order to provide the student an opportunity to apply technical information at the time it is acquired. Repair work on automobiles is conducted under closely supervised conditions according to factory specifications and methods, using modern testing and repair equipment.
- 125A-5. *Internal Combustion Engines, Theory of.* The theory of the operation of internal combustion engines; the history and development of engine-factors that influence development; improvements; nomenclature; factors affecting power output; two stroke cycle; four stroke cycle; diesel; and, major differences in construction are included in this course. Also included is a study of engine lubrication and cooling.
- 126A-5. *Chassis and Brake Systems.* A study of springs, shock absorbers, axles, independent front end suspensions, steering gears and linkages, factors of wheel alignment, corrections for alignment, wheel alignment specifications, brake requirements, types of brakes, energization, mechanical application, hydraulic application and power brakes.
- 127A-5. *Ignition and Carburetion, Theory of.* The theory of basic electricity; magnetism, induction and electric current, principles of direct current generation, principles of simple alternating current generation, electrical measurement and electrical circuits. Theory of construction and operation, repair, adjustment, maintenance, and inspection of modern carburetors.
- 128A-3. *Transmissions and Drive Trains.* A study of synchromesh and overdrive transmissions, including planetary gears. Also universal joints, drive shafts and differential assemblies.
- 220A-5. *Automatic Transmissions.* A study of fluid couplings, torque converters and hydraulically shifted transmissions such as dynaflo, hydramatic, powerglide, and fordomatic.
- 226A-3. *Auto Body Rebuilding and Refinishing.* A study of rebuilding methods which includes planning repairs of damaged metal parts, straightening body panels, repair methods, body welding, repair of wrecked automobiles, damaged frames and the planning of shop lay-outs. Included is a study of the preparation for spray painting,

types of finishes, refinishing procedures, causes for spray-painting troubles and color matching. This course includes the use and care of oxy-acetylene welding equipment, the removal of dents and restoration of original contours, shrinking and expanding of the sheet metal, the leveling of ripped and folded panels, torch and lead paddling, basic finishing procedures, preparation for painting and painting procedures.

- 227A-3. *Engine Rebuilding*. The development and operating characteristics of the many types of automotive engines. Operating principles of internal combustion engines. A study of cylinder heads and oil pans, cylinder blocks and crankcase, crankshafts and flywheels, pistons and connecting rods, valves and valve-operating mechanisms, engine lubrication, cooling, mounting and the dis-assembly, re-machining and rebuilding of the complete automotive engine.
- 101B-7. *Accounting I*. A study of the balance sheet, profit and loss statements, trial balance, journalizing and posting, sales, purchases, adjusting and closing entries, and periodic summaries.
- 102B-5. *Accounting II*. A continuation of Accounting I, applying the principles developed in the preceding course to partnerships and corporations. Notes and interest, valuation of assets, the voucher system, payroll and tax accounting, and prepaid items are also studied in this course.
- 103B-5. *Accounting III*. Corporate organization and records, stocks and bonds, surplus and dividends, departmental and branch accounting, accounting for manufacturing analysis, and interpretation of financial statements.
- 104B-5. *Secretarial Accounting*. In this course the basic principles of accounting are presented from the viewpoint of the secretary. The accounts of private individuals, professional men, institutions, and small business firms of various types are studied.
- 109B-7. *Departmental Accounting*. In this course the student uses books of original entry, special ledgers, and auxiliary ledgers which are used in accounting in special departments, such as sales, purchasing, payroll, real-estate holdings, insurance, and equipment. Special monthly reports are also prepared.
- 126B-3. *Fundamentals of Business*. A survey of business services, organizational charts, occupational possibilities and requirements. The various departments of business are discussed with emphasis on their relationship to one another. Emphasis is placed on the American concept of business operation, with particular emphasis to our system of free private enterprise.
- 127B-4. *Business Law I*. Introduction of torts, contracts, sales, liens, negotiable instruments, law of insurance agency, master and servant, real property and landlord and tenant.
- 201B-4. *Accounting IV*. An advanced study of accounting records, merchandising and manufacturing accounts, end of year procedures, corrections of profits of prior periods, accounting statements, analysis of working capital, analytical and comparative per cents, analytical ratios.

- 202B-4. *Accounting, Cost.* The relation of cost accounting to management for control; general principles involved in constructing a cost system; distribution of cost-materials, labor, and burden; cost records; operating reports; joint and by-product cost and budgetary control. Prereq, Accounting II.
- 203B-4. *Accounting V.* A continuation of Intermediate Accounting Principles I. An advanced study of current assets, investments, tangible fixed assets, intangible fixed assets, liabilities, reserves, and the statement of application of funds. Prereq, Intermediate Accounting I.
- 204B-4. *Cost Accounting II.* Process cost accounting; costing by-products and joint products; budgeting; estimated cost systems; standard cost; cost control and analysis. Prereq, Cost Accounting I.
- 226B-4. *Business Law II.* A continuation of Business Law I, with special emphasis on applying principles of the law to particular business problems. Prereq, Business Law I, or equivalent.
- 227B-4. *Office Administration and Supervision.* A study of the flow of work and its purpose. The work of an office from the managerial viewpoint. Problems of organization and co-operation between management and the workers for inside and outside activities.
- 229B-2. *Record Keeping.* The complete cycle of records necessary in running a business in buying, selling, inventories, payroll, and stock control.
- 230B-5. *Auditing.* The preparation of the audit program, working papers, and reports are considered. In addition, selected problems dealing with various asset, liability and capital accounts are worked and discussed. Prereq, Cost Accounting.
- 233B-5. *Federal Taxes.* Considerable emphasis is placed on the effect of various business transactions, such as dealing in securities, on taxable income. The procedure to be followed by a taxpayer who has been assessed additional income tax. Prereq, Accounting II.
- 234B-3. *Real Estate Principles.* Introduces student to real estate fundamentals and principles. Topics considered are: real estate economics, terminology and definitions, real estate law, real estate investment.
- 235B-4. *Business Statistics.* This course covers the collection, tabulation, and graphic presentation of data, averages and index numbers, economic trends, cycles, correlation and application.
- 236B-5. *Insurance Principles I.* The beginning course introduces the student to insurance fundamentals and principles. Major topics included are: history, ethics, and economics of insurance; types of insurance; Illinois State laws relating to transactions of insurance; agency and brokerage contracts; types of casualty and property insurance.
- 237B-3. *Real Estate Appraisal.* The practical approach to solving appraisal problems of residential, rural, urban, and commercial properties. The course includes on-the-site analysis of properties.
- 238B-5. *Life Insurance.* Objectives of this course are to provide thorough knowledge of the principles underlying the structure of life in-

- insurance and its various operations, and to give an understanding of ways in which life insurance can be applied to the needs for personal estate, property estate, and business.
- 239B-3. *Fire and Inland Marine Insurance*. General principles of insurance are treated with emphasis upon fire insurance and inland marine insurance.
- 240B-4. *Property and Casualty Insurance I*. Covers principles of insurance as applied to illnesses, injuries, and property damage claims.
- 241B-4. *Property and Casualty Insurance II*. Subjects included are first party claims, third party claims, policy coverages, damage appraisals, law of torts, legal doctrines, and injury evaluations.
- 250B-3. *Real Estate for Home Builders*. A survey of the real estate field with emphasis on the essentials that concern the consumer. The purpose is to develop a full understanding of realty as a commodity and to equip the student with the fundamentals essential to a successful building operation.
- 251B-3. *Record Keeping for Home Builders*. The fundamental training in business practice and record keeping. A study of business records and papers; recording transactions; classification and interpretation of cost data; special problems; preparation of financial statements and reports.
- 275B-5. *Credits and Collections*. Organization and operation of the credit department including the sources and analysis of credit information, collection methods, and correspondence. Retail credit management emphasized.
- 279B-2. *Graphic Analysis*. Preparation of graphs to represent factual information. Interpretation of graphs as useful business aids.
- 281B-2. *Retail Records I*. (Inventory and Merchandise Control.) This series deals with problems of recording and interpreting the transactions in the apparel and variety stores. Work is centered on the records needed to properly control the merchandise in the store.
- 282B-2. *Retail Records II*. (Payroll Methods and Payroll Control.) Similar to the above course but with emphasis on payroll and related problems.
- 283B-2. *Retail Records III*. (Taxes, Insurance, Financial Reports.) Also similar to the above courses but with emphasis as noted.
- 101C-6 to 12, 102C-6 to 12, 103C-6 to 12, 104C-6 to 12. *Cosmetology Laboratory I, II, III, and IV*. Includes laboratory practices in learning the skills involved in giving a permanent wave, pin curl and finger wave, scalp treatment, haircut, facial massage, hand and arm mold, hair tint and bleach, and manicure.
- 125C-5. *Cosmetology Theory I*. Study of the skin and hair and how each is affected by massage and treatment. Elementary chemistry of the various materials used in the treatment of the scalp, hair, and skin. Disorders of hair, scalp and skin. Sanitation and sterilization as applied to cosmetology. That part of Illinois law pertaining to cosmetology is introduced.
- 126C-5. *Cosmetology Theory II*. Includes a further study of Illinois law affecting cosmetology. A study is made of the circulation of blood

and lymph. Hair tints and bleaches are studied and demonstrated. Neurology, including the affect of massage upon the nerves. The use of electricity in the treatment of hair, scalp, and skin.

- 127C-5. *Cosmetology Theory III*. Salon management including location, equipment, ventilation, sanitation, supplies, inventories, purchasing, and personnel problems. Salesmanship with special emphasis on the selling of personal service.
- 101D-7. *Machine Drafting and Design I*. Practice in the drawing room on multiview drawings (on the principle planes of projection), sectional views, primary auxiliary views, and dimensioning (with special attention paid to the avoiding of cumulative tolerances). Techniques for securing accuracy, legibility, speed, and neatness are constantly stressed.
- 102D-7. *Machine Drafting and Design II*. Practice in the drawing room on pictorial drawings, evolutions, secondary auxiliary views, intersections, developments, and the design of bent parts for economical production.
- 103D-7. *Machine Drafting and Design III*. Practice in the drawing room on the representation of screw threads, fasteners, springs, and other machine elements, on detail and assembly drawings of mass-produced products involving precision fits, on welded assemblies, on inking, and on printmaking.
- 110D-7. *Architectural Projections*. Use of the instruments, lettering, projections, intersections, oblique, isometric, shades and shadows, and perspective and developments.
- 115D-7. *Residential Architecture I*. Lettering, use of instruments, projections, isometric drawings, perspective and presentation drawings, study and development of basic residential floor plans.
- 116D-3. *Residential Architecture II*. Study and development of projects in contemporary residential design; basic influence with environment, materials, psychological and physical functions exert on man's development of shelter.
- 117D-3. *Residential Architecture III*. Study and development of projects in contemporary residential design of a complex nature; emphasis on proper orientation, materials, environment, psychological and physical functions as the solution to the problem.
- 121D-4. *Architectural Design I*. Beginning study of architectural planning, design, composition, and presentation.
- 125D-3, 126D-3, and 127D-3. *Machine Drafting and Design Theory I, II, and III*. These courses include related information on such topics as: the machine draftsman and his language—technical drawing; importance and characteristics of good lettering; selection, use, and care of drawing instruments and materials; techniques for rapid producing accurate, legible, and neat drawing; sketching techniques; manufacturing processes; conventional representations and practices; drafting room procedures; importance of interchangeable manufacture and the resultant demands upon the draftsman; the use of welding symbols; and the use of a machinist's handbook.

- 146D-3. *Architectural Rendering I*. Pencil drawing from still life and landscape; use of the elements of drawing.
- 147D-3. *Architectural Rendering II*. Pencil drawing and water color from still life and landscape.
- 148D-3. *Architectural Rendering III*. Water color from still life and landscape.
- 150D-3. *Introduction to Architecture*. Introduction to the profession of architecture, illustration of basic forms and their organizations, discussion of professional ethics, conduct of architectural practice, methods of making estimates, contracts and contract documents.
- 151D-3. *Materials and Methods of Construction I*. Comprehensive study of light frame construction including foundations; manufacture and performance characteristics of materials; framing systems; finish materials; development of construction details and working drawings.
- 152D-2. *Site Engineering*. Site selection considerations; land surveys; survey computations, contours, uses of contours, leveling, computations of cut and fill, drainage and grading, staking out buildings and roads, check list for site plans.
- 153D-3. *Site Planning and Construction I*. Elementary problems emphasizing physical development of specific sites involving population densities, architectural forms, grading, public utilities, traffic and parking, and functioning street patterns.
- 154D-3. *Introduction to Residential Building*. A survey of the home building industry with emphasis on the common problems; economic outlook, design and construction trends, financing, special housing, labor, and legislation.
- 175D-3. *Technical Drafting I*. Fundamental principles and practices involved in the use of drafting instruments in making orthographic projections, including auxiliary and sectional views, development of surface and intersections of solids, pictorial representation, lettering dimensioning, titles, and notes, geometrical instruction, technical drafting and design information.
- 176D-3. *Technical Drafting II*. This course is designed for the students majoring in a trade such as machine shop, and includes the basic elements of drafting. Emphasis is placed upon blue-print reading and shop sketching. Other topics included are orthographic projections, sectioning, auxiliary projection, tolerances, isometric sketching and geometric constructions. The object of this course is to give the student a foundation in the visualization of views and the ability to express himself by means of free hand sketches.
- 177D-3. *Technical Drafting III*. Preparing and understanding schematics and diagrams of circuits, etc., in order to be able to build or rebuild radio-television receivers and other equipment.
- 201D-7, 202D-7, 203D-7. *Machine Drafting and Design IV, V, and VI*. Practice on advanced problems in detail and assembly drawings, on gear and cam design problems, on other machine design problems, and on tool design problems.

- 210D-3. *Construction I*. A technical study of masonry, concrete, metal, and synthetics used in home construction. Time for the development of skills will be provided but is limited to the very basic processes and tools.
- 211D-3. *Construction II*. A course in the fundamentals of bench wood-working, carpentry, and cabinetmaking with emphasis on the skills and knowledge common to home building construction.
- 212D-3. *Construction III*. A continuation of Construction II with the addition of finishing and preservation.
- 220D-6. *Architectural Design II*. Continuation of architectural design and planning with emphasis on small structures.
- 221D-6. *Architectural Design III*. Continuation of architectural design with emphasis on more complex structures and building groups.
- 222D-6. *Architectural Design IV*. Continuation of architectural design and planning with emphasis on more complex structures and building groups.
- 225D-3, 226D-3, and 227D-3. *Machine Drafting and Design Theory IV, V, and VI*. The fundamental or simpler phases of mechanical engineering which are needed for the solution of design problems assigned in the drawing room and which are intended to develop the draftsman who can truly be a technical assistant to the mechanical designer. Some typical subjects of instruction in these courses are: mechanisms, applied mechanics, and fundamental stress analysis.
- 246D-3. *Architectural Rendering IV*. Water color from still life and landscape.
- 247D-4. *Mechanics and Strength of Materials*. An elementary technical study of force systems, centroids of areas, moment of inertia of areas; deformation and stress; flexure and deformation of beams; combined stresses in short blocks; columns.
- 250D-3. *Materials and Methods of Construction II*. Semi-fireproof construction; manufacture and performance characteristics of materials; framing systems and foundations; finished materials; development of construction details and drawings.
- 251D-3. *Materials and Methods of Construction III*. Fireproof construction; long span systems; industrial and commercial structures; finish materials; preparation and interpretation of construction details and working drawings.
- 252D-7. *Materials and Methods of Construction IV*. Selected problems in architectural construction with emphasis on working drawings; detailing; schedules and specifications; quantity surveys. Report of individual investigations and study required.
- 254D-4. *Mechanical Equipment of Buildings*. Code requirements and specifications affecting mechanical equipment; design and installation of plumbing; heating, ventilating, and air conditioning equipment; electrical wiring; illumination and vertical transportation.
- 258D-4. *Structural Elements*. Structural design as a correlated part of the design and planning. Analysis of building loads; action of forces;

- strength of materials; theories of shear, flexure and deflection; design of wood, steel, and concrete structural members.
- 259D-7. *Architectural Design V*. Selected problems in architectural design.
- 260D-5. *Materials and Methods of Construction V*. Selected problems in building construction with emphasis on working drawings; detailing; construction equipment; contract documents; construction on costs and estimates. Report of individual investigations and study required.
- 265D-2. *Sanitary Services for Residential Buildings*. Study of design and installation of sewage and water supply systems; plumbing estimates and costs; rough layouts; code requirements and trade practices affecting plumbing installations.
- 266D-2. *Electrical Services for Residential Buildings*. Study of design and installation of electrical wiring, illumination and special electrical services; electrical estimates and quantity surveys; code requirements and trade practices affecting electrical installations.
- 267D-2. *Heating and Air Conditioning for Residential Buildings*. Study of design and installation of modern heating, ventilating and air conditioning equipment, estimates and costs; selection of equipment; code requirements and trade practices affecting installations.
- 280D-3. *History of Architecture*. An analysis of the development of architecture from the ancient to the present time as it is related to the environmental and cultural setting.
- 282D-3. *Interior Design I*. Selected individual or group projects in the design of interior spaces and furnishings. Prereq, permission of the instructor.
- 283D-3. *Architectural Construction Analysis I*. Selected individual or group projects in materials and methods of architectural construction as applied to the selection and use in contemporary architecture.
- 284D-3. *Structural Design of Buildings I*. Selected individual or group projects in the design and analysis of structural framing members as applied in contemporary architecture.
- 285D-3. *Architectural Design Analysis I*. Selected individual or group projects in architectural design. Prereq, permission of the instructor.
- 101F-7. *Industrial Woodworking I*. Includes air drying and kiln drying of lumber, material handling, maintenance of yard and materials handling equipment.
- 102F-7. *Industrial Woodworking II*. Shall include operation of the basic woodworking machines, safety, maintenance, machining characteristics of various species of wood, materials handling, and lumber grading.
- 103F-7. *Industrial Woodworking III*. Includes advanced work in the operation of the basic woodworking machines, introduction to specialized machines, practical training in production scheduling, materials handling on the production line, and assembly work.
- 125F-4. *Production and Processing Methods I*. Lectures directly related to Industrial Woodworking I will include air drying; kiln drying;

materials handling in the lumber yard; wood identification; basic physical and mechanical properties of wood as it relates to seasoning and rough construction; maintenance of yard and materials handling equipment; layouts of lumber yard facilities; safety; orientation of the student with the lumbering industry as a whole.

- 126F-4. *Production and Processing Methods II*. Lectures related to Industrial Woodworking II will cover basic woodworking machines, their operation, function, limitations, nomenclature, and maintenance; safety; behavior of wood in various machining operations; wood identification; lumber grading; seasoning; additional work in the physical and mechanical properties of wood.
- 127F-4. *Production and Processing Methods III*. Class work directly related to Industrial Woodworking III shall include advanced machine operation; production scheduling; routing; glues; joints; materials handling in production machine; wood identification; assembly of products.
- 128F-2. *Wood Identification*. An advanced course in identification of various species of wood both native to the United States and foreign, and commercially important.
- 130F-2. *Lumber Seasoning*. Advanced work in air drying and kiln drying for the student who desires to specialize in lumber seasoning. Kiln operation, tune up, maintenance, and design will constitute the major part of this course. A full size kiln at the Wood Products Pilot Plant will be available for practical seasoning work.
- 131F-2. *Lumber Grading*. The student shall become familiar through study and actual practice with the National Hardwood Rules, Southern Pine Rules, and West Coast Rules. Tally methods and grading for special products shall also be covered.
- 201F-7. *Industrial Woodworking IV*. Includes advanced machine operation of basic and specialized woodworking machines, cabinet and millwork practices, gluing; basic finishing techniques, saw filing, knife grinding, and wood preservation practice.
- 202F-7. *Industrial Woodworking V*. Shall include practice in advanced cabinet works, assembly, advanced finishing methods, quality control practice, and advanced maintenance work.
- 203F-7. *Industrial Woodworking VI*. Includes advanced work in seasoning, machine operation, finishing, assembly, and production and quality control methods.
- 225F-4. *Production and Processing Methods IV*. Lectures related to Industrial Woodworking IV will include machine operation with emphasis on the beginnings of production cabinet and millwork practices, production scheduling, stock control, knife grinding, saw filing, quality control, safety, finishing, preservation, and assembly of products.
- 226F-4. *Production and Processing Methods V*. Lectures related to Industrial Woodworking V will include advanced work in production machining of cabinet, case, and millwork parts; assembly; advanced finishing; materials handling of finished parts; quality control; safety; maintenance of machines and accessories.

- 227F-4. *Production and Processing Methods VI*. Lectures related to Industrial Woodworking VI shall include advanced production methods, quality control from mill to finished product, industrial safety programs, plant layouts, marketing of wood products, and general review of industrial woodworking procedures.
- 229F-4. *Wood Finishing and Preservation*. This course shall include the study and use of all types of wood finishes, their application, durability, and testing. A portion of the term will be devoted to a study of various wood preservatives, their use, limitations, and methods of application. Actual work with finishes and preservatives will be conducted at the wood products pilot plant. In addition field trips will be arranged for visiting commercial installations using finishing equipment or preservatives.
- 100G-3. *English Fundamentals*. A course requiring writing practice, mostly expository, the student using chiefly his own ideas and materials and aiming at the development of skill in organizing and arranging these ideas and materials; emphasis upon unity coherence in the whole composition; and an acquaintance with the library; an amount of directed reading, studies of the structure of the sentence; and conferences on the work. Student to be excused upon satisfactory score on Institute placement test.
- 101G-3. *Business Correspondence*. After a brief review of fundamentals, a complete study is made of letter forms and letter mechanics. A study is made of various types of business letters and report writing with adequate practice in writing application sales, adjustment, inquiry, and credit letters. Prereq, Fundamentals of English, or equivalent.
- 102G-3. *English Problems Analysis*. This course is designed for the student who will specialize in stenographic and secretarial occupations. Individual problems in punctuation, spelling and grammatical construction are analyzed for the purpose of development of high skill in word-usage.
- 104G-5. *Mathematics Fundamentals*. A course designed to be a refresher on the mathematical tools needed by the student in his work and in his later courses. Includes a review of arithmetic and some of the basic topics of elementary algebra.
- 105G-2. *Algebra Fundamentals*. A briefer refresher course than 104G in which most of the time is devoted to algebra.
- 107G-5. *Technical Mathematics*. A course which takes up the study of algebra with specific orientation to the vocational needs of the students. Separate sections for the various curricula as designated in the schedule of classes.
- 110G-3. *Trigonometry*. A course covering the usual topics of trigonometry.
- 111G-4. *Basic Physics I*. A study of mechanics, mechanical vibrations, sound, wave motion, and light. Planned to give a basic understanding of these phases of physical science.
- 112G-4. *Basic Physics II*. A study of heat, magnetism, electricity, and sound covering the basic laws of heat measurements and transfers, fundamentals of magnetism, electrical charges and currents, electrical measurement, and fundamentals of acoustics.

- 116G-4. *Principles of Speech*. Development of an understanding of basic principles and proficiency in the skills involved in everyday communication.
- 121G-5. *American Democracy, Problems of*. Emphasis given to problems pertaining to civil liberties, pressure groups and propaganda, the electoral system, and general governmental organization and procedures.
- 127G-5. *Economic Principles*. The economic system, markets, production, value, price, distribution, the cycle, comparative systems.
- 136G-5. *Introductory Sociology*. Survey of sociology. Interrelationships of personality, social organization, and culture; major social processes; structure and organization of groups.
- 141G-5. *Introduction to Physiology*. A survey of the functions of the human body. Designed for students in various fields desiring a basic but comprehensive knowledge of human physiology.
- 142G-4. *Psychology of Human Relations*. Training in development of personality, ability to analyze problems involving human relations, and the development of good foundations for personnel relations. Actual cases of human relations problems in business and industry are studied with a view toward developing the technique of working with superiors, associates and subordinates.
- 177G-2. *Economics of Distribution*. A review of our economic system, markets, production value, price, etc. A study of this problem will give the student a better understanding of the place and function of distribution in our national and world economy.
- 200G-2. *Economics for Home Builders*. An introduction to the science of economics; examination of fundamental principles; understanding of value, price, cost, rent, interest, wages, profit, and business cycles.
- 201G-2. *Ethics for Home Builders*. Ethical standards and theories of right and justice underlying business relations. Stress is laid on problems involving social morality, the profit motive, prices and unfair competition.
- 232G-4. *Labor Management Relations Problems*. Personnel policies, selection and employment, employee benefits, labor organizations and governmental activities, employee-employer relations, grievance procedure, wage and salary standards, and use of practical industrial psychology.
- 279G-3. *Public Relations-Community Problems*. A study of how a retail business can execute its responsibilities in the community and develop good will for the store and the trading area in general.
- 101H-3, 102H-3, 103H-3, 201H-3, 202H-3, 203H-3. *Congressional Dictation I - VI*. Material from the Congressional Record is dictated at graduated speeds to give the student practice in vocabulary and context peculiar to this type of practice.
- 104H-3, 105H-3, 106H-3, 204H-3, 205H-3, 206H-3. *Literary Dictation I - VI*. Material taken from the best literature, at graduated speeds, is used to build vocabulary and to help in building overall speed in taking dictation.

- 107H-3, 108H-3, 109H-3, 207H-3, 208H-3, 209H-3. *Two-Voice Testimony*. Two people dictate, alternating their questions and answers, to give the student practice in taking dictation under these conditions which are found in court procedure.
- 110H-5. *Indoctrination I*. This course gives the student the initial information of forms of transcripts, methods of taking court testimony, methods of vocabulary building, and general procedure of preparing material for the court.
- 111H-4, 114H-4, 115H-4, 216H-4, 217H-4, 218H-4. *Transcription VI, VII, VIII, IX, X, XI*. Two-voice and four-voice testimony and congressional material is transcribed under timed conditions in the prescribed form and manner which is acceptable with court procedure. All copy is prepared with the prescribed number of copies as required in actual court reporting work.
- 112H-3, 113H-3, 212H-3, 213H-3, 214H-3. *Jury Charge I - V*. Material is dictated from actual jury charges from official records. Since this form is different from ordinary dictation, it is necessary for the prospective court reporter to have this practice.
- 215H-2, 219H-2. *Four-Voice Testimony I - II*. Four voices with alternating dictation are used in this course. This procedure is comparable with court procedure where the opposing attorneys, judge, and witness enter into the testimony.
- 101J-7, 102J-7, 103J-7, 201J-7, 202J-7, 203J-7. *Print Shop I, II, III, IV, V, VI*. Laboratory experience in the use of printing tools and machines, progressively upgraded projects and instruction in the operation of typical printing machines used in commercial shops and newspapers. Industrial practices; related technical information.
- 125J-5. *Print Shop Theory I*. Theory of the point system, printers' measure, and spacing. A thorough study of the printers' system of measure, correct spacing, and justification.
- 126J-3. *Print Shop Theory II*. Theory of print shop rule and tabular composition. A study of rule and tabular composition, correct method of setting rules, borders, and ornaments.
- 127J-3. *Print Shop Theory III*. Theory of slug casting machine keyboard. A study of the correct keyboard system for the slug casting machine, word division, etc.
- 152J-3. *Proofreading*. A study of word division, spelling, punctuation, and how they apply to printing.
- 153J-3. *Printing Layout and Design*. Training in the making of layouts for advertisements, direct mail pieces, etc. A study of type faces, use of white space, etc.
- 225J-3. *Print Shop Theory IV*. Theory of slug casting machine maintenance. A study of the problems of Linotype and Intertype maintenance, adjustments, and advanced keyboard problems.
- 226J-3. *Print Shop Theory V*. Theory of print shop ink-paper-press problems. A study of the correct ink to use with different papers, problems of the different presses, makeready, etc.
- 227J-3. *Print Shop Theory VI*. Theory of print shop bindery problems. A study of bindery problems, folding, stitching, paper-cutting, etc.

- 251J-3. *Estimating and Costs in Printing*. A study of correct methods of pricing printing jobs. The Porte catalog will be used as a basic text.
- 101K-3. *Calculating Machines I*. Training in the operation of the Burroughs calculator, Marchant calculator, comptometer, Monroe and Friden calculators, adding listing machines, and bookkeeping machines used in small business establishments.
- 102K-3. *Calculating Machines II*. A continuation of training in skill building in the operation of key-stroke and rotary-type calculators. Specialization is the objective. Prereq, Calculating Machines I.
- 103K-3. *Calculating Machines III*. High speed drills to develop occupational competency in the operation of the comptometer and the Burroughs calculator, also in the other key-driven business machines.
- 111L-5. *Clerical Procedures*. In this course the non-stenographic skills in record-keeping are practiced. Preparation of stock records, perpetual inventories, invoices, bills of lading, checks, receipts, and statements are included. The process of auditing invoices and proving petty cash are an integral part of this course.
- 101M-7, 102M-7, 103M-7. *Machine Shop I, II, and III*. These courses serve to introduce the basic operations which are performed on the following machines and hand tools: drill press, engine lathe, shaper and planer, contour saw, off-hand grinding and precision measuring instruments.
- 125M-5. *Engine Lathe and Bench Work Theory*. This course consists of lectures and demonstrations of operations which are being performed in the machine shop. The emphasis is placed upon shop procedures and practical mathematical problems involving decimals, fractions, and formulas used in engine lathe and bench work operations.
- 126M-3. *Shaper and Planer Theory*. Demonstrations and lecture on types and construction of shapers and planers, work holding devices, speeds and feeds, types of tools and setups.
- 127M-3. *Precision Measurement*. Demonstrations and lecture on the following: history and basic principles, fixed gages, dial gages, gage blocks, angular measurement, optical instruments, non-destructive testing. Practical mathematics will be used to compute typical problems of inspection set-ups.
- 175M-3. *Basic Machine Shop Practice*. A basic course in machine shop for the allied trades stressing the use of hand tools, drilling and basic lathe work.
- 176M-3, 177M-3. *Manufacturing Processes I and II*. A study of a variety of shop processes such as: layout work; machine tool operations on engine lathe, shaper, planer, milling machine, and grinder; precision measurement, and inspection. Emphasis is placed on how jobs are performed rather than on the development of skill in doing them.
- 201M-7, 202M-7, 203M-7. *Machine Shop IV, V, and VI*. These courses are a continuation of the first year courses. The additional machines and hand tools used by the student are: milling machines, grinding machines, turret lathe, bore-matic and filing machines. The student will participate in the following work: tool and die, jig and fixture, machine repair and construction, tool and cutter grinding.

- 225M-3. *Milling Machine Theory*. Types and construction, accessories, attachments, speeds and feeds, types and shapes of cutters, hold location, special set-ups, and the mathematics of indexing and gearing.
- 226M-3. *Grinding Techniques*. All phases of grinding including: tool grinding; cutter grinding; surface, internal and cylindrical grinding; form tool grinding; the manufacture of abrasives and the selection of wheels as to type, size, kind of abrasive, structure, bond, grain size and grade; cutting wheel speeds, feeds and use of coolants. The handling, storage and inspection of wheels as well as safety factors are stressed.
- 227M-3. *Production Machines and Tooling*. Modern methods of automatic and semi-automatic metals processing; a study of tools, dies, jigs, and fixtures and their application.
- 275M-3. *Elementary Metallurgy*. The properties of metals, the theory of alloys, heat treatment of steel, surface treatment of steel, tool steels, classification of steels, and the testing of hardness are included in this basic metallurgy course.
- 101N-3, 102N-3, 103N-3. *Drawing and Composition I, II, and III*. The student learns to draw any object in any position through a study of perspective and other form concepts. He learns to bring objects together in relationships that are both dynamic and balanced through a study of line, form, value, color, and texture as elements of design. Studio problems and field sketching.
- 125N-3, 126N-3, 127N-3, 225N-3, 226N-3, 227N-3. *Figure Drawing I, II, III, IV, V, and VI*. Study of the human figure for action, proportions, and construction. Sketches from life and costumed models reveal the relationships of the body to clothing. Interpretation of the figure and apparel are studied in relation to advertising and fashion illustration.
- 130N-3, 131N-3, 132N-3. *Lettering and Layout I, II, and III*. Development of professional skill in lettering techniques commencing with showcard brush lettering and progressing through finished hand-lettering, paste-up lettering, and the selection of type for use in advertising. Preparation of rough idea sketches and finished layouts for newspaper advertising, catalogs, brochures, posters, displays, and television art.
- 140N-3, 141N-3, 142N-3. *Advertising Illustration I, II, and III*. Practical problems to meet the specific needs of advertising design and illustration. Students develop skill in the use of the pen, brush, ink, and wash. They gain experience in modern techniques for preparing art for reproduction in black and white and color. This includes training in the use of color and screen-tint overlays, masking, photo retouching, airbrush, paste-up, and mark-up of art for engraving and printing.
- 150N-3. *Art Appreciation*. Development of understanding of art through a survey of fine arts with emphasis upon its relationship to daily environment and the field of commercial art.

- 176N-1. *Color, Line, and Design*. Presentation of the aesthetic qualities of softlines merchandise and an appreciation and recognition of art in retailing. Training in applying this knowledge to customer needs.
- 180N-2. *Show Card Lettering*. Development of skill in preparation of ordinary feature cards and price cards for window and counter use. Pen and brush.
- 201N-3 to 12, 202N-3 to 12, 203N-3 to 12. *Advertising Layout and Production I, II, III*. The student develops skill in the detailed planning and production of advertising. This includes the preparation of layouts, the planning of copy and typography, and much of the finished art work. The student also learns how to provide instructions to those who work with the advertising and production man in the preparation of advertising.
- 210N-3 to 12, 211N-3 to 12, 212N-3 to 12. *Advertising and Story Illustration I, II, III*. This course emphasizes the development of skill in the rendering of illustrations of merchandise for advertising as well as decorative illustrations and stylized cartoons for advertising, story illustration, greeting cards, children's books, and television art.
- 220N-3 to 12, 221N-3 to 12, 222N-3 to 12. *Fashion Illustration I, II, III*. Emphasis is placed upon the development of style and taste in the illustration of fashion apparel and accessories in mediums appropriate to newspaper, magazine, and catalog advertising.
- 230N-3 to 12, 231N-3 to 12, 232N-3 to 12. *Lettering and Design I, II, III*. Practical problems in design and lettering as applied to posters, window and interior displays, television backgrounds, as well as the opportunity of electing problems in the design of merchandise labels, wallpaper, wrapping paper, and textile design.
- 101R-8, 102R-8, 103R-8. *Co-operative Retail Experience*. Full-time work experience in an approved work station. Special emphasis will be placed on the sales function.
- 125R-3. *Customer Sales Relations*. This course deals with the fundamentals of salesmanship and responsibilities of the sales person to the customer, to the store, and to himself.
- 126R-3. *Introduction to Retailing*. This is the introductory course to all retail merchandising and management courses in the apparel and variety series. A general study of business organizations with emphasis on softlines businesses, functions and duties in the major divisions of the apparel and variety business.
- 127R-3. *Specialized Selling*. To improve and develop more effective methods of selling specific items of merchandise, e.g., how to sell men's hats, coats, suits, accessories; how to sell fashion merchandise. How to sell children's wear, how to sell shoes. Each student will study and practice as his needs and interests demand.
- 128R-2. *Store Policies Affecting Salespeople*. Understanding store service, price, quality, advertising, merchandising, return and adjustment policies and interpreting them correctly to the customer.
- 132R-3. *Hardline Selling*. The study and practice of selling hardware merchandise to the consumer; selecting the proper merchandise, dem-

- onstrating its uses, meeting objections, closing the sale, and suggestion selling with emphasis on hardware.
- 133R-3. *Hardline Information I*. A detailed study of case goods, upholstered furniture and other modern non-wood furniture items. How they are made, their qualities, care, and uses.
- 134R-3. *Display (Hardlines) IIA*. Application of principles of display to hardline merchandise and further development of skills used in display.
- 135R-3. *Display (Grocery) IIB*. Application of principles of display to grocery merchandise and further development of skills used in display.
- 175R-3. *Apparel Salesmanship*. The study of selling apparel and variety merchandise to the consumer; selecting the proper merchandise, demonstrating its uses, meeting objections, closing the sale, and suggestion selling.
- 178R-3. *Non-Selling Responsibilities*. A study of customer services, store system, uses and conservation of supplies, merchandise and store protection, with emphasis on stocking.
- 181R-3. *Textile Information I*. (Natural Fibers.) A detailed study of woolen, cotton, linen, and other natural fibers. How they are woven, their qualities, care and uses.
- 182R-3. *Textile Information II*. (Synthetic Fibers.) Same as Textile Information I except a study is made of such fibers as rayon, nylon, orlon, etc.
- 183R-3, 184R-3, 185R-3. *Product Information*. Group study and student projects concerning manufacturing processes, care and use facts of the non-textile merchandise carried in the typical apparel and department stores. (e.g., metals, plastics, leathers, etc.) Students in each program will do their special projects on merchandise carried by their type store.
- 201R-8, 202R-8, 203R-8. *Co-operative Retail Experience*. Full-time experience in an approved work station. Special emphasis will be placed on work experience that meets the special interest and capabilities of the student training with junior executive as goal.
- 204R-3. *Interior Display-Store Layout*. Study of theory and laboratory practice in interior display and store layout for the apparel and variety stores.
- 225R-3. *Department Management*. An analysis of the job duties and records of a typical department or type of retail unit that would be managed by one person.
- 226R-3. *Establishing a Retail Business*. Deciding what type of business to begin, selecting a location, building or renting, equipment, fixtures, layout, legal problems, management controls, government restrictions, etc.
- 227R-3. *Personnel Management*. Retail personnel management, employee relations, policies and techniques. Methods of recruitment, selection, placement and training.
- 232R-2. *Retail Accounting Systems and Devices*. Selecting the proper accounting system for an apparel, department store, hardware

store, or grocery store. Streamlining retail accounting systems, use of cash register, and multiple sales slips and forms.

- 234R-2. *Merchandising Control System and Services*. This unit deals with the problems in store operation. Stock records in a unit drug store, unit hardware, shoe, etc. Model stock plan merchandise classification, sales records, inventory methods.
- 275R-3. *Advertising Apparel Merchandise*. Fundamentals of advertising softlines merchandise in newspapers, radio, television, catalogs, and direct mail.
- 276R-3. *Fundamentals of Buying*. Duties of the buyer, planning, forecasting, marketing, buying techniques, sources, selecting merchandise, deciding on price lines and brands.
- 277R-2. *Government Relations*. The study of government controls, necessary reports, methods of compliance, and retailings' responsibilities in formulating government policies as they affect the industry.
- 280R-3. *Retail Credits and Collections*. Modern consumer credit management, consumer credit sales practices, collection procedures, legal aspects, human relations in the credit department, credit letters, trends.
- 284R-3. *Window Display*. Theory and practice in the classroom laboratory. Selecting merchandise to be displayed, building backgrounds, using proper lighting, developing knowledge and skill in use of color, design, etc. A display shop is available with woodworking machines and tools, painting equipment, and display materials.
- 101S-3. *Typewriting I*. Introduction of the keyboard and covers the basic theory of touch typewriting with some emphasis on speed and accuracy development. Typing of simple type business letters is introduced.
- 102S-3. *Typewriting II*. This course provides for the development of basic skill. Special consideration to mechanics of writing in preparation of student in transcription. Business letters and their various styles are introduced. Prereq, Typewriting I or equivalent.
- 103S-3. *Typewriting III*. Included in this course are advanced letter writing problems of the usual business forms, manuscript and report typing. Prereq, Typing II or equivalent.
- 104S-7. *Shorthand Theory*. A thorough study of the principles of Gregg shorthand through blackboard demonstrations, drill on work lists, and practice in reading material. Intensive drill of brief forms, phrases, and word families. Correct reading and writing techniques are emphasized. Students are gradually introduced to dictation.
- 107S-2. *Filing*. The basic principles of modern filing systems are covered; alphabetic, subject, numeric, and geographic. The student works with practice filing equipment, learning the rules of indexing, cross referencing, coding, chargeouts, color devices, and setting up a modern system.
- 125S-2. *Personality Development I*. This course is designed to help students improve their personalities. Consideration will be given to units such as social usage, personal appearance, and good groom-

- ing; living and working with others; emotional and social maturity; and the effect of good nutrition and health on personality.
- 126S-2. *Personality Development II*. A continuation of Personality Development I dealing with the adapting of one's self to office regimen, with emphasis on voice modulation, diction, correct posture, poise, effective attitudes, social amenities, and correct grammar.
- 204S-5. *Dictation I*. This course provides for learning and automatic vocabulary of brief forms, special forms, and word families. Writing practice on familiar material and introduction of new material in dictation are provided. Prereq, Shorthand Theory.
- 205S-3. *Typewriting IV*. This course consists of intermediate speed drills combined with rapid straight typing for the building of competent business typing skill. The major part of the course emphasizes accuracy and speed building, with review of office production typing. Prereq, Typewriting III or equivalent.
- 206S-5. *Dictation II*. Speed building in dictation, with emphasis on mailable transcripts. Sustained writing practice, building speed up to 100 words per minute. Prereq, Dictation I or equivalent.
- 207S-2, 220S-2, 221S-2. *Transcription I - III*. Instruction in the principles of transcription, placement of letters, punctuation, spelling, vocabulary building, and application of grammar. Transcription of business letters and reports according to business standards.
- 208S-2. *Typewriting V*. A continuation of speed and accuracy building through the use of intensive drills and exercises. One day per week is given to office production typing under timed condition. Prereq, Typewriting IV or equivalent.
- 209S-5. *Dictation III*. Additional speed building in advanced dictation. Emphasis on dictation for transcription under timed conditions. Builds shorthand speed up to 120 words per minute. Prereq, Dictation II or equivalent.
- 210S-2. *Typewriting VI*. High-speed typing drill is employed in this course using speed sentences, phrases, continuity paragraphs. One day per week is given to time production office typewriting problems. Prereq, Typewriting V or equivalent.
- 213S-5. *Co-operative Secretarial Work-Study Problems and Techniques*. The student spends half days in a seminar with the co-ordinator of the secretarial-stenographic work study plan to improve techniques as used in the co-operative part-time position; to study problems and activities as they are met in the work-study plan. Remedial work is planned where it is found necessary for students on an individual basis, depending on the type of work and problems which are met in the part-time placement under the co-operative plan.
- 214S-5. *Co-operative Secretarial Experience*. In this phase of the secretarial course the student spends either half days, or two weeks at a time, in an office to gain actual experience in the field of his major. This may be in stenographic, non-stenographic, accounting, or office machines. The half day plan is used within a radius of

20 miles of the Institute; in others, part-time placement is planned in the student's home town, or environs, whenever possible.

- 215S-4. *Work Study Problems and Techniques*. The student spends half days in a seminar with the co-ordinator of the work-study plan to improve techniques as used in the co-operative part-time position; to study problems and activities as they are met in the work-study plan. Remedial work is planned where it is found necessary for students on an individual basis, depending on the type of work problems which are met in the part-time placement under the co-operative plan.
- 218S-5. *Co-operative Medical Secretary-Technician Experience*. In this phase of the course the student spends either half days, or two weeks at a time, in an office of a doctor, dentist, or hospital to gain actual experience in the field of his major. The half day plan is used in offices within a radius of 20 miles of the Institute; in others, part-time placement is planned in the student's home town, or environs, whenever possible.
- 222S-5. *Legal Office Procedure*. This course includes training in preparation of legal documents, special transcription procedure, techniques appropriate to the legal office, taking of depositions, and general office practice applicable to a legal office.
- 223S-5. *Secretarial Office Procedures*. Lectures and laboratory practice in handling office work in a detailed manner. The student is required to assume the responsibility of the reception of callers, handling correspondence, planning itineraries, care of appointments, preparation of legal documents, personnel records, and telephone technique. Techniques of successful placement for employment are integrated with the placement counselor of the Institute.
- 224S-5. *Legal Dictation Shortcuts*. Special dictation, involving special legal terms, vocabulary building, shortcuts in writing legal terms in Gregg shorthand, or in machine shorthand. Many special forms are taught involving phrasing, advanced brief forms, and technical terms needed in legal secretarial work.
- 225S-5. *Medical Dictation*. Advanced dictation involving medical terminology, phrasing, and vocabulary. Special terms and definitions are used in preview of materials found in the dictation for transcription.
- 226S-2, 228S-2. *Medical Transcription I, II*. In this course, conducted on the laboratory basis, the student transcribes from dictated notes, using medical terminology from general medicine, and specialized related areas. Attention is given to the preparation of medical case histories, x-ray reports, post-operative diagnosis, etc.
- 227S-5. *Medical Dictation II*. In this course the student is expected to gain higher rates of proficiency, using more advanced medical terms and nomenclature. Preparation of special types of case histories are also covered in such medical fields as psychiatry, for example.
- 230S-2. *Legal Transcription I*. This course includes transcription from dictation notes with content peculiar to the work of a legal secre-

- tary or court stenographer. Special work is done in preparation of briefs, court testimony, and legal documents with the State of Illinois standard form.
- 231S-2. *Court Room Orientation*. Designed particularly for the legal secretary who may, at times, spend time in the courtroom. Particular attention is given to court attitude, courtesies, behavior, and correct procedures demanded by the presiding judge.
- 232S-5. *Work Experience*. The student spends half-days on the job to gain actual experience in the special field. This work-experience is coordinated by a staff member to discuss the student's advancement on the job with the employer or supervisor.
- 233S-5. *Dictation IV*. This course provides considerable drill and instruction in the use of Gregg shorthand dictation shortcuts in order for the student to attain skill up to 120-140 words per minute.
- 234S-2. *Transcription IV*. In this course the student transcribes from high-speed dictation notes, using business, commercial, and industrial vocabulary. Considerable attention is given to word usage, sentence structure, punctuation, and spelling.
- 101T-7. *Radio and Television Shop I*. The first term shop contains experiments that are directly related to the following: electron theory, color code applications, parts identification, D.C. circuit theory, Ohms Law, magnetism, operation of the V.T.V.M., A.C. circuit theory, resonance and tuning theory, principles of the vacuum tube, transformer power supplies, audio amplifier circuits, use of the oscilloscope, T.R.F. receiver theory.
- 102T-7. *Radio and Television Shop II*. Experiments that are directly related to the following: radio receiver power supplies (A.C., A.C.-D.C., and selenium), bridge circuits, audio frequency amplifiers, advanced sound systems, acoustics, lateral disc recording, tape recording, automatic record changers, oscillators, phono oscillators, superhetrodyne receiver theory, phase shift circuits, and transistor circuits.
- 103T-7. *Radio and Television Shop III*. Includes the servicing of commercial, home, and automobile receivers by signal substitution, voltage analysis, resistance analysis, and signal tracing.
- 125T-5. *Principles of Radio and Electronics*. Electron theory color code application, parts application, parts identification, D.C. circuit theory, Ohms Law, magnetism, operation of the V.T.V.M., A.C. circuit theory, resonance and tuning theory, principles of the vacuum tube, transformer power supplies, audio amplifier circuits, use of the oscilloscope, T.R.F. receiver theory.
- 126T-5. *Communications*. Radio receiver power supplies (A.C., A.C.-D.C., and selenium), bridge circuits, audio frequency amplifiers, advanced sound systems, acoustics, lateral disc recording, tape recording, automatic record changers, oscillators, phone oscillator, superhetrodyne receiver theory, phase shift circuits, and transistor circuits.
- 127T-5. *Radio Service and Repair*. A study of the various methods of servicing home and automobile receivers including signal tracing.

Particular emphasis is placed on the superheterodyne type of receiver.

- 201T-5. *Radio and Television Shop IV.* Experience in the maintenance and use of service instruments. Included is the repair and calibration of instruments and checking response curves in FM receivers. Laboratory practice with oscilloscope, sweep frequency generators, and square wave generators.
- 202T-5. *Radio and Television Shop V.* Laboratory practice in tracing circuits and testing. Television front ends, video IF., sound IF., video det. video amplifiers, FM det., audio amplifiers, sync sections, vertical sweep sections, horizontal sweep sections, high voltage power supply, low voltage power supply, and cathode ray tubes. Antenna installation and methods of testing.
- 203T-5. *Radio and Television Shop VI.* Trouble shooting for defective sections and stages in television receivers. Complete alignment of television receivers. Practice in use of sweep generators, scopes, AM generators, frequency calibrators, marker generators, square wave generators, fly back and yoke testers, cathode ray tubes testers. Short cut service methods.
- 225T-5. *Radio and Television Service Instruments.* A study of the operation, maintenance and use of radio and television service instruments with application to radio, FM and television receivers. Included are the oscilloscopes, sweep generators, marker generators, square wave generators. V.T.V.M.A., calibrators, field strength meters, cross hatch generators, tracers.
- 226T-5. *Television Theory and Test Methods.* Types and kinds of television antennas, types and kinds of television transmission lines, matching stubs and wave length calculations. Choosing the proper antenna for an area. Theory of circuitry and methods of testing—front ends, video IF, sound IF, video detector, video amplifiers, FM detector, AF amplifiers, sync. amplifiers and clippers, vertical sweep sections, horizontal sweep sections, high voltage power supply, low voltage power supply, and cathode ray tubes.
- 227T-5. *Television Receivers.* Analysis and diagnosis of trouble in television front end section, IF sections, video amplifier sections, sound sections, sweep sections, sync. sections, and cathode ray tube circuit. Locating defective stages and components. Complete alignment methods. Use of scopes, sweep generators, AM generators, marker generators, square wave generators, frequency calibrators, fly back and yoke testers, and cathode ray tube testers.
- 101W-7. *Oxy-acetylene Welding Shop.* Actual shop experience in oxy-acetylene welding under instructor's supervision.
- 125W-5. *Theory of Oxy-acetylene Welding.* The proper use of oxy-acetylene equipment involving generators, torches, tanks, regulators, and manufacturing of oxygen and acetylene; the weldability of ferrous and non-ferrous metals and the theory of shielded arc welding.
- 102W-7. *Arc Welding Shop I.* Introduction of metallic arc welding giving the student actual experience in both AC and DC welding. Weld-

ing in the various positions are introduced.

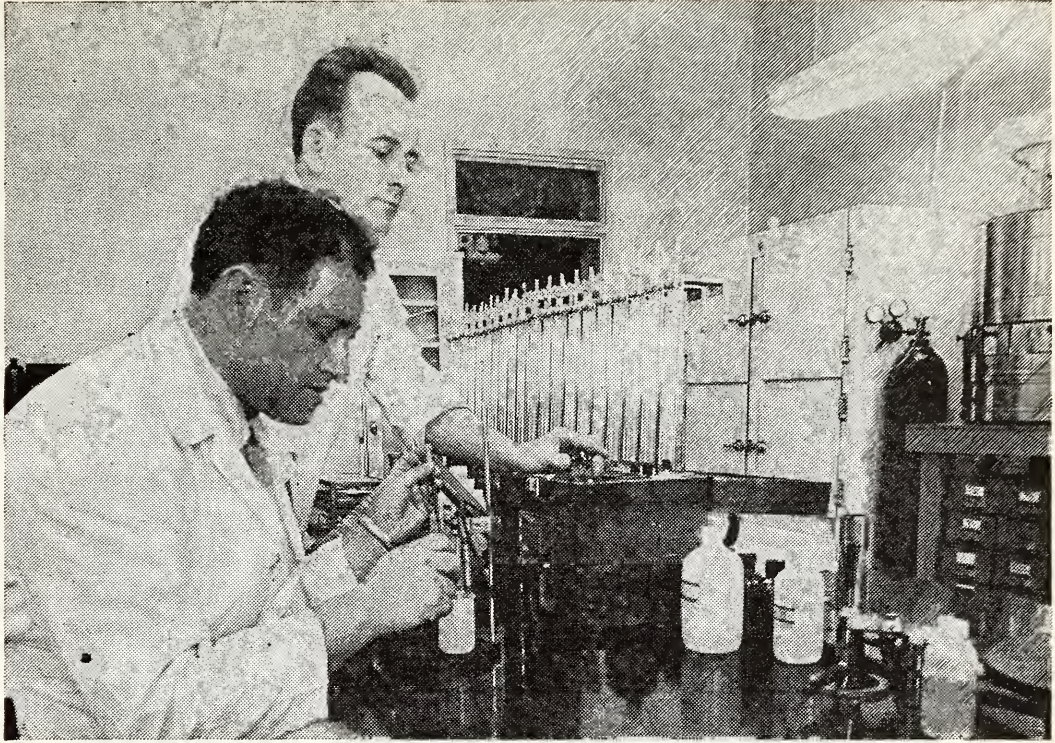
- 127W-5. *Theory of Arc Welding*. The study of metallic arc welding and its equipment for both AC and DC machines. The types of electrodes, their uses, their identification is also taught as is the methods of welding inspection with actual testing in the shop.
- 103W-7. *Arc Welding Shop II*. Further shop work in position welding with special emphasis on special application electrodes and their application. Also semi-automatic welding.
- 175W-3. *Oxy-acetylene and Electric Arc Welding*. This is a combined course in gas and arc welding to provide the machinist or other tradesman with enough welding experience to make repairs and fabricate simple assemblies. Emphasis is placed on the building up of worn parts and the repair of broken parts. The use of low temperature rods is included to make the repair of machine shop tools, such as milling cutters, possible.
- 201X-2. *Job Orientation*. Each student will prepare a portfolio consisting of a personal data sheet, and analysis of prospective employing firms, sample letters of application, and an acceptance or refusal, in the development of his projected plans for professional growth, advancement, and service. Practice is given in being interviewed by representatives of business and industry.

GRADUATE SCHOOL

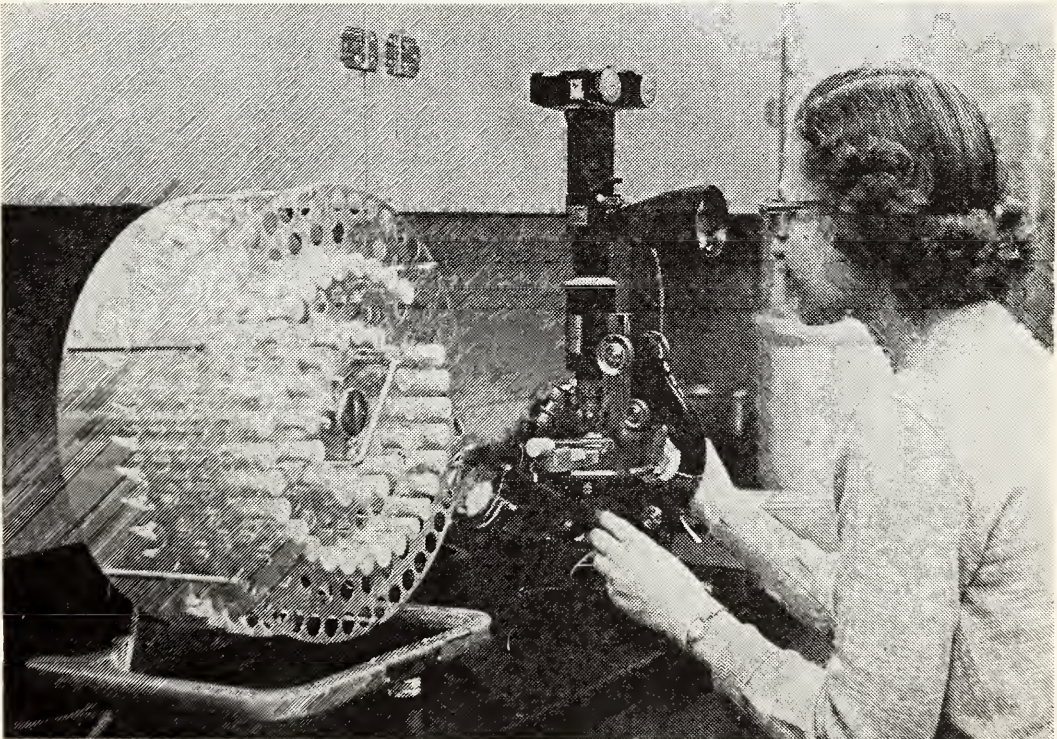
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ADMINISTRATION OF THE GRADUATE SCHOOL
RESEARCH
COURSES IN THE GRADUATE SCHOOL



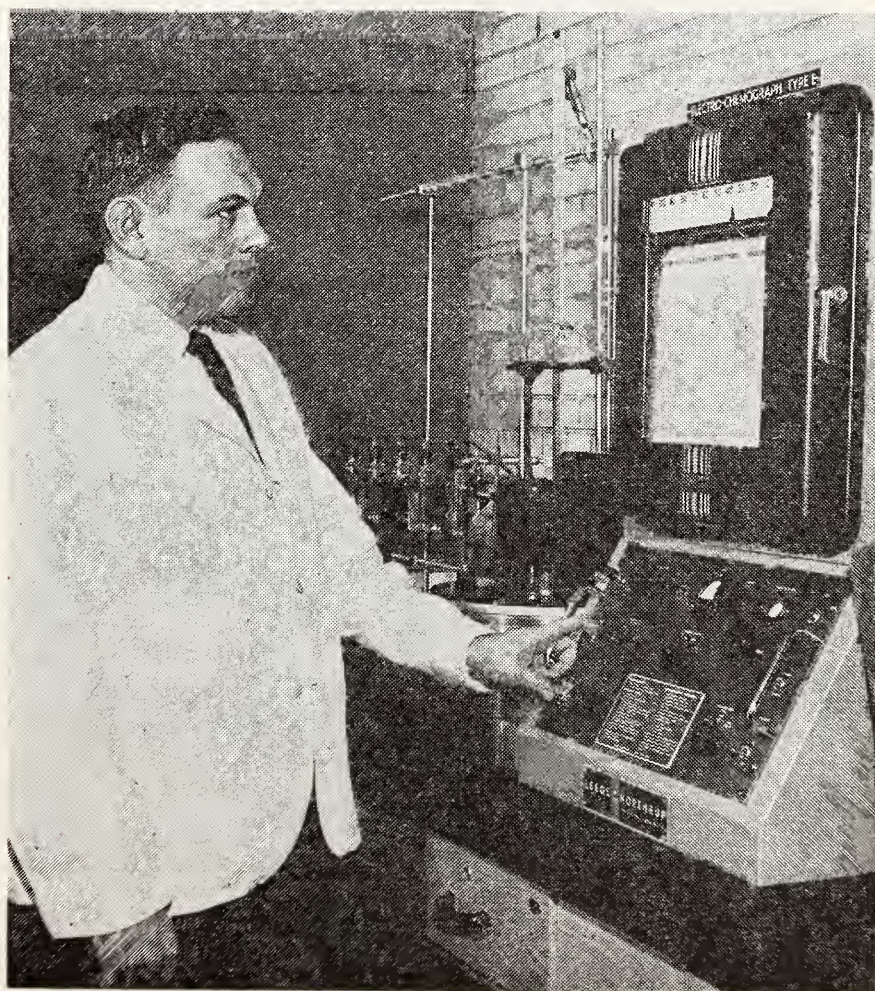
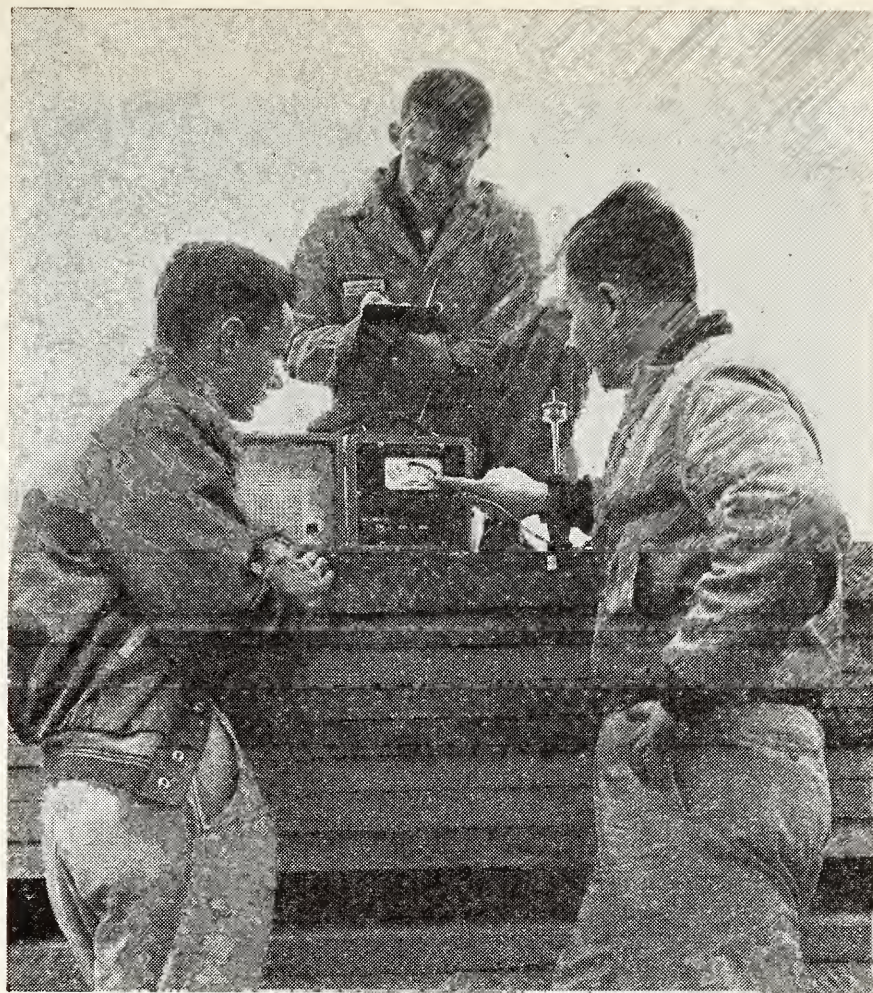
SOUTHERN ILLINOIS UNIVERSITY



RESEARCH









THE GRADUATE SCHOOL

OFFICERS OF INSTRUCTION

PRESIDENT D. W. MORRIS, PH.D. (IOWA)	1948
VICE-PRESIDENT FOR INSTRUCTION CHARLES D. TENNEY, PH.D. (OREGON)	1931
DEAN WILLIS G. SWARTZ, PH.D. (IOWA)	1930
ASSISTANT DEAN AND CHIEF GRADUATE ADVISER DAVID T. KENNEY, PH.D. (ILLINOIS)	1951
REGISTRAR AND DIRECTOR OF ADMISSIONS ROBERT A. McGRATH, PH.D. (IOWA)	1949

THE PURPOSE OF GRADUATE STUDY

"A Graduate College necessarily must be a center of research and of creative work in order to maintain the atmosphere essential to adequate graduate instruction. It is the obligation of the Graduate College, therefore, to encourage investigation and to promote all forms of scholarly activity on the part of the faculty. From the standpoint of the student the purpose of the college is to make possible a more comprehensive grasp of a field of knowledge, and to develop the power of independent thought and ability in research. One of the chief privileges of the graduate student is the intimate association with older scholars who are ready to guide him in advanced study and to imbue him with scholarly ambition.

"The library and laboratory facilities of the university are important agencies for the furthering of graduate work. The graduate student is expected to take the initiative and to assume full responsibility for carrying on his work. Class work should be regarded as furnishing the basis for wide reading and independent study, for the graduate student must keep in mind that even though a considerable amount of his work may be in courses admitting undergraduates, he is expected not merely to recite upon class assignments but to master subjects. A higher degree is conferred not alone in consideration of the number of credit hours accumulated but rather for high attainment in some major field and a thorough grounding in cognate branches."¹

HISTORY AND GENERAL INFORMATION

The Graduate School of Southern Illinois University is one of ten instructional divisions on the campus. Since the summer of 1944, graduate courses have been offered leading to the degree Master of Science in Education; and in 1948, the University was authorized to offer work leading to the degrees Master of Arts and Master of Science. In 1952 the Master

¹University of Oklahoma Bulletin—Issue for the Graduate College, Norman: University of Oklahoma Press, 1949.

of Fine Arts degree was established. A Sixth Year Program of graduate work was authorized by the Board of Trustees in 1953. In it work beyond the master's degree can be taken in certain fields toward a Specialist's Certificate. In 1955, the Board of Trustees authorized the Master of Music and the Doctor of Philosophy degrees.

By 1956, a total of 892 masters' degrees had been conferred. Of these, 127 were the Master of Arts, 45 the Master of Science, 713 the Master of Science in Education, and 7 the Master of Fine Arts. The first Specialist's Certificate was awarded in 1955.

ADMINISTRATION OF THE GRADUATE SCHOOL

THE GRADUATE COUNCIL

Willis G. Swartz, <i>Chairman</i>	Robert A. Harper, 1958
David T. Kenney, <i>Secretary</i>	Henry J. Rehn
T. W. Abbott	Clarence D. Samford, 1956
Ernest E. Brod, 1957	Burnett H. Shryock
Robert D. Faner, 1957	C. Horton Talley
Eugene D. Fitzpatrick, 1956	Charles D. Tenney
John E. Grinnell	John W. Voigt, 1958

The administration of the Graduate School is carried on by the Graduate Council. Its members are appointed by the President of the University in consultation with the Dean of the Graduate School, who is *ex officio* chairman of the Council. The Faculty of the Graduate School is composed of the President of the University, the Dean of the Graduate School, and members of the University faculty who are designated by a committee consisting of the deans of Colleges and Schools providing courses for the graduate program, the Vice-President for Instruction, and the Dean of the Graduate School.

CHAIRMEN OF DEPARTMENTS OFFERING GRADUATE WORK

Art.....	Burnett H. Shryock (Acting Chairman)
Botany.....	Walter B. Welch
Business Administration.....	Henry J. Rehn (Acting Chairman)
Chemistry.....	James W. Neckers
Economics.....	Robert G. Layer (Acting Chairman)
Education.....	Fount G. Warren
English.....	William B. Schneider
Foreign Language.....	Vera L. Peacock
Geography.....	Floyd F. Cunningham
Geology.....	Stanley E. Harris (Acting Chairman)
Government.....	Orville Alexander
Guidance and Special Education.....	Eugene D. Fitzpatrick (Acting Chairman)
Health Education.....	Donald N. Boydston
History.....	T. W. Abbott (Acting Chairman)
Home Economics.....	Eileen E. Quigley
Industrial Education.....	Ralph O. Gallington
Journalism.....	Howard R. Long
Mathematics.....	Wilbur C. McDaniel

Microbiology.....	Carl C. Lindegren
Music.....	Henry Allen Bruinsma
Philosophy.....	Willis Moore
Psychology.....	Noble H. Kelley
Physical Education.....	Dorothy Davies Edward J. Shea
Physics.....	Charles J. Brasefield
Physiology.....	Harold M. Kaplan
Recreation and Outdoor Education.....	William H. Freeberg
Speech.....	C. Horton Talley
Sociology and Anthropology.....	Joseph K. Johnson
Zoology.....	Harvey I. Fisher

OTHERS RESPONSIBLE FOR APPROVING MAJORS

In Educational Administration.....	Woodson W. Fishback Clarence D. Samford
In Instructional Supervision.....	Woodson W. Fishback
In Elementary Education.....	Victor R. Randolph
In the Internship Program in Education.....	Charles D. Neal
In the Sixth Year Program.....	Clarence D. Samford
In Rehabilitation Counseling.....	Guy Renzaglia

RESEARCH

The Graduate Council allocates funds available for research to individual faculty members, to departments, and to special research agencies of the University. It also assists in acquiring research funds from foundations and other outside sources. The supervision of research generally is a responsibility of the Dean of the Graduate School.

BIOLOGICAL RESEARCH LABORATORY

DIRECTOR CARL C. LINDEGREN, PH.D. (CALIFORNIA INSTITUTE OF TECHNOLOGY)	1947
ASSOCIATE PROFESSOR MAURICE OGUR, PH.D. (COLUMBIA)	1953
ASSISTANT PROFESSOR DAN O. McCLARY, PH.D. (WASHINGTON UNIVERSITY)	1951

Work in this laboratory is devoted to the genetical, cytological, biochemical, and radiobiological study of yeast and other microorganisms. The laboratory is well-equipped with modern apparatus for these investigations. It is staffed by three principal investigators holding the doctorate degree, and several assistants. The laboratory is frequently visited by other scientists interested in learning the techniques that have been developed here.

The laboratory is supported principally by the University, with grants coming from Anheuser-Busch, Inc., the United States Public Health Service, the Atomic Energy Commission, the National Cancer Institute of the National Institutes of Health, the Office of Naval Research, and the American Cancer Society.

Publications from the laboratory have appeared in a number of the

leading biological journals in the United States, Japan, India, Switzerland, the Netherlands, Sweden, and England.

CO-OPERATIVE ATOMIC AND CAPACITOR RESEARCH

DIRECTOR OTIS B. YOUNG, PH.D. (ILLINOIS) 1929

Research is conducted to develop special criteria and methods of delta ray counting, and capacitor research is performed co-operatively with the Capacitor Division of the Sangamo Electric Company to measure resistance, capacitance, dielectric constants, power factors, and breakdown voltages. University research funds are supplemented by financial support provided by a Research Corporation Grant and a Sangamo Electric Grant.

CO-OPERATIVE CLIMATOLOGY RESEARCH

ASSOCIATE PROFESSOR DALIAS A. PRICE, PH.D. (WISCONSIN) 1947

This project is designed primarily to gather, analyze, and conduct research of rainfall characteristics of the Crab Orchard Watershed and includes operation of one of the largest dense network rain gauge systems in the country.

CO-OPERATIVE FISHERIES MANAGEMENT RESEARCH

ASSOCIATE PROFESSOR WILLIAM M. LEWIS, PH.D. (IOWA STATE) 1949

This is a program for surveying fisheries resources of Southern Illinois and investigating possible management procedures for the improvement of recreational fishing. University research funds are supplemented by financial support provided by the Division of Fisheries, Illinois Department of Conservation, and the Sport Fishing Institute.

CO-OPERATIVE FORESTRY RESEARCH

ASSISTANT PROFESSOR JOHN FRANK HOSNER, M.F. (DUKE)	1950
INSTRUCTOR MILTON SHUTE, M.S. (CORNELL)	1955
RESEARCH ASSOCIATE DAVID E. HERRICK, B.S. (IOWA STATE)	1955
ADJUNCT PROFESSOR RICHARD D. LANE, M.S. (IOWA STATE)	1954
ADJUNCT PROFESSOR LEON S. MINCKLER, PH.D. (NEW YORK STATE COLLEGE OF FORESTRY)	1954

In co-operation with the Central States Forest Experiment Station of the U. S. Department of Agriculture Forest Service, Southern Illinois University is carrying on investigations of the woodlands and woodlots of Southern Illinois, the possibilities of reforestation, and the development of forest products industries. The co-operating agencies share expenses, staff, equipment, and the responsibility for communicating their results to the public.

CO-OPERATIVE WILDLIFE RESEARCH

ASSOCIATE PROFESSOR W. D. KLIMSTRA, PH.D. (IOWA STATE)	1949
ASSISTANT PROFESSOR HOWARD STAINS, PH.D. (KANSAS)	1955
ADJUNCT PROFESSOR THOMAS G. SCOTT, PH.D. (IOWA STATE)	1955

The basic function of this project is to investigate the life history, ecology, taxonomy, and management of wildlife for better understanding and management on local, state, and federal levels. University research funds are supplemented by financial support provided by the Illinois Natural History Survey, Illinois Department of Conservation, Wildlife Management Institute, Illinois Coal Strippers' Association, Truax Traer Coal Company, United Electric Coal Company, and United States Fish and Wildlife Service.

VOCATIONAL-REHABILITATION TRAINING PROGRAM

ASSOCIATE PROFESSOR GUY A. RENZAGLIA, PH.D. (MINNESOTA) 1955

This training program at the graduate level is for rehabilitation counselors. Funds are provided by the Office of Vocational Rehabilitation under the Department of Health, Education, and Welfare.

GRADUATE FELLOWSHIPS AND ASSISTANTSHIPS

Graduate fellowships are available in the departments of art, botany, business administration, chemistry, economics, education, English, foreign languages, geography, geology, government, guidance and special education, history, home economics, industrial education, journalism, and mathematics, microbiology, music, philosophy, physical education, physics, physiology, psychology, recreation and outdoor education, sociology and anthropology, speech, zoology, and in the Extension Division, Museum, offices of the Personnel deans, and the University Library.

Graduate fellowships are awarded upon the basis of scholarship. Recipients are permitted to carry normal graduate schedules. The stipend for the academic year is \$1080, plus remission of tuition. Applications should be made, if possible, before March 15 preceding the academic year for which the fellowship is desired. Inquiries may be addressed to the Dean of the Graduate School.

Graduate assistantships are available in a number of departments and research agencies. These positions pay a monthly stipend of approximately \$180.00, with the exact amount depending upon the assignment, plus remission of tuition. Service of twenty hours a week, or a corresponding load in teaching or research, is required. Inquiries should be addressed to the chairman of the appropriate department.

Research assistantships are available in a number of research agencies and projects. They pay approximately \$120.00 per month, with the exact amount determined by the assignment, plus remission of tuition. Service equivalent to twenty hours a week is required. Inquiries should be addressed to the appropriate departmental chairman or research director. A limited number of research assistantships are awarded to majors in student personnel work who are also resident fellows. Recipients are limited to twelve quarter hours of course work per quarter, and receive room, board, remission of tuition, and a stipend of approximately \$80.00 per month.

Inquiries concerning assistantships, both graduate and research, should be made before March 15 preceding the year for which the assignment is sought.

FEES

Matriculation Fee (not charged to graduates of Southern)	\$ 5.00
Graduate Aptitude Test Fee	3.00
Tuition for residents of Illinois (per term)	20.00
Half-time (8 quarter hours) or less	10.00
Tuition for non-residents (per term)	50.00
Half-time	25.00
Book rental fee (per term)	3.50
Book rental fee half-time or less	1.75
Student Union Building Fund (per term)	1.00 *
Activity Fee (per term). Optional for graduate assistants and fellows	9.50

ADMISSION

Admission to the Graduate School is granted by the Registrar and the Dean of the Graduate School, but approval for majoring in a particular department can be given only by its chairman or his designated representative. Field majors must be approved by the chairman of each department concerned. Unconditional admission to the Graduate School is granted only to graduates of fully accredited colleges and universities; graduates of institutions of limited accreditation, however, may be given conditional admission, depending upon the merit of the institution concerned. Students whose undergraduate records are not such as to indicate ability to do high quality work should not expect unconditional admission to the Graduate School.

Forms upon which application may be made for admission to the Graduate School may be obtained from the Office of the Graduate School. With the application, the applicant must submit an official transcript (sent directly from the college or university from which the degree was received) of all his undergraduate work and of any graduate credits which he may wish to transfer.

A student who wishes to enter the Graduate School immediately after graduation may submit, during the final term of undergraduate work, a transcript bearing an indication of the courses he is taking, together with a statement from his registrar that graduation will follow successful completion of his current enrollment. A supplementary transcript which records all completed courses and the degree earned must be submitted before full admission can be granted. A student who has completed his undergraduate work and has been recommended for graduation may be admitted to the Graduate School before the bachelor's degree is conferred. Credentials submitted to the University become permanent property and are placed on file in the Registrar's Office.

An undergraduate student who is within one term's work (sixteen quarter hours) of meeting requirements for the bachelor's degree may take courses for graduate credit by applying for admission to the Graduate School and obtaining approval for the proposed major from the departmental chairman. Undergraduates who take such courses for graduate credit must

* Will increase to \$3.00 per term effective with Winter Quarter, 1956-57, and to \$4.00 effective Fall Quarter, 1957-58.

also obtain the approval of the Dean of the Graduate School at the time of registration.

A person who holds the bachelor's degree and who does not wish to become a candidate for a higher degree or for another bachelor's degree, but who wishes to take work in the University, should apply for admission as an unclassified graduate student. In such a capacity he may enroll in graduate or undergraduate courses for which he has had the prerequisites. No course can be credited toward a master's degree unless the student, at the time the course is taken, has applied for admission to the Graduate School as a regular graduate student.

ADMISSION TO FULL GRADUATE STANDING

Written approval for each student to major in the department of his choice must be obtained, at the time of his first registration in the Graduate School, from the chairman of the department or his representative. If this is not done, the student will have no assurance that courses taken in that department will lead to a major or be applied toward a master's degree at this University. The process by which a proposed major is approved is initiated by the Dean of the Graduate School, who informs each student of the action taken by the departmental chairman and of any conditions which must be fulfilled before the major can be finally approved.

The student attains full graduate standing when he has fulfilled the prerequisites of his major department, has made a satisfactory score upon the Graduate Aptitude Test or has completed half the work for the Master's degree with an average of "B" or better in the event that his score is not satisfactory, and has satisfied the English Usage requirement of the Graduate School. In no case is a successful completion of half the required work to be considered an acceptable alternative to taking the Graduate Aptitude Test.

ADVISEMENT

To each student admitted to the Graduate School is assigned, by the Dean of the Graduate School, one or more advisers representing the student's major and minor fields. The adviser or advisers assist the graduate student in making out his program of studies, both term-by-term and long-range. For this reason a conference should be arranged, as early as possible in the student's career, between him and his adviser or advisers, so that his over-all program may be planned. Later conferences should be scheduled whenever they become necessary. As soon as the student selects his thesis topic and thesis director, the director is designated as chairman of the final examination committee. This committee advises the student in the preparation of the thesis, evaluates the thesis when completed, and supervises the final examination, written or oral or both. In cases where no thesis is written, the chairman of the final examination committee is named by the Dean of the Graduate School. In any case the members of the final examining committee are named by the Dean of the Graduate School.

The maximum burden of course work for graduate students during a regular term is eighteen quarter hours; twelve is considered to be a normal load. Maximum for graduate assistants, research assistants, and assistant

instructors, who are employed half-time, is fourteen quarter hours; for persons who are otherwise employed full time, eight (graduate fellows may in ordinary circumstances carry full loads.) These maxima may be exceeded only with the written permission of the Dean of the Graduate School.

A number of graduate courses, particularly in education and in guidance and special education, are scheduled for evenings and Saturdays, for the benefit of those who are employed during the day. Courses on the 400 level which carry four quarter hours' credit, are required to meet for sixteen, two-and-one-half hour sessions during the term, rather than for only one session per week.

A graduate student is expected to plan his work carefully; hence program changes after registration should seldom be necessary. Such changes must be approved by the student's chief adviser and the Dean of the Graduate School, and may involve the payment of a program change fee. Program change cards may be obtained from the Graduate Office.

Ordinarily a graduate student is expected to select both a major and a minor field. This is particularly true of those who major in the field of educational administration. Most of these majors do part-time teaching after receiving the degree and find it to their advantage to complete a minor in an academic field. A student may be permitted by his advisory committee and the Dean of the Graduate School to concentrate his efforts in one particular area of study. The graduate major consists, in most fields, of a minimum of thirty quarter hours of credit in the area of special concentration; some departments, however, require as many as forty quarter hours for the major, in which case no minor is required. The graduate minor consists of a minimum of fifteen quarter hours. A student may have a double major recorded on his transcript upon completing the necessary number (sixty quarter hours) of courses. One who has a master's degree in a field other than education from another institution, and who wishes to obtain a master's degree in education from Southern Illinois University, may count his major of the first degree as his minor for the second. In this case the student must demonstrate his competence in that major by taking a graduate course in it at Southern Illinois University.

Grades are recorded by the letters A, B, C, D, and E. An average of B (4.0) in all courses taken for graduate credit is a prerequisite of the master's degree. Credit for any course for which the grade given is below C will not be counted toward the degree. If the graduate student fails to complete a course by the end of the term, he may be given a grade of "deferred." If the deficiency is removed by the end of the eighth week of the following term, the "deferred" is replaced with a letter grade; otherwise it then becomes a "W," followed by the grade earned in that portion of the course which was completed.

Each candidate for the master's degree shall either write a thesis, which may be counted for not more than nine nor fewer than five quarter hours' credit, carry out a special project, or take specific courses on the graduate level, as may be recommended by his advisory committee and approved by the Dean of the Graduate School. Each student who does not write a thesis must submit to the Graduate Office, for its permanent records, a copy of a research paper as evidence of his knowledge of formal research techniques.

The subject of the thesis is to be approved by the chairman of the advisory committee and the Dean of the Graduate School at least two terms before the date of graduation, and is to be reported to the Graduate Office by the student. The completed thesis shall be submitted for evaluation to the members of the student's advisory committee at least two weeks before the final examination. If possible it should be submitted, at some time before the examination, to all the committee members who administer the final examination. Two copies of the approved thesis (the original and first carbon) must be presented to the Graduate Office at least two weeks prior to the date of graduation, to be bound and shelved in the University Library.

Each candidate for a master's degree must pass a comprehensive examination covering all his graduate work, including the thesis. This examination may be written or oral, or both, as determined by the student's advisory committee. If a written examination is required, at least half of it shall be of a subjective nature. The committee for the oral examination shall be appointed by the Dean of the Graduate School and shall consist of four or more members of the Graduate Faculty, usually with one outside the student's major and minor fields of specialization. The duration of the oral examination shall be one to two hours.

The graduate student must file his application for graduation at least three weeks prior to the date of graduation. One copy of the application is to be presented to the Graduate Office and one to the Registrar. Application forms may be secured from either of these offices. At the same time, the student should make arrangements with the Bursar's Office for payment of the graduation fee.

The graduate student must assume responsibility for his progress by keeping an up-to-date record of the courses he has taken and by checking periodically with his adviser and the Graduate Office. Responsibility for errors in program or in interpretation of regulations of the Graduate School rests entirely with the student.

Candidates are expected to meet requirements in force during the year of graduation, but due consideration will be given the fact that a student may have been admitted and may have planned his work when other requirements were current. Important changes in requirements are put into effect gradually. Any change in intention, no matter how minor, should be reported to the Graduate Office, so that records may be accurately kept. It is especially important that the following data should be kept up to date on the student's record in the Graduate Office: the major and the minor, the degree for which the student is a candidate or a potential candidate, the chairman of the advisory committee, and the thesis adviser.

GRADUATE DEGREES

Graduate degrees are available in the following fields and departments:

1. Master of Arts—Art, Biological Sciences, Botany, Chemistry, English, Foreign Languages, Geography, Government, History, Journalism, Mathematics, Microbiology, Philosophy, Physical Sciences, Physics, Psychology, Sociology and Anthropology, Speech, and Zoology.
2. Master of Fine Arts—Art.

3. Master of Music—Music.
4. Master of Science—Art, Biological Sciences, Botany, Chemistry, Economics and Business, English, Foreign Languages, Geography, Government, History, Home Economics, Industrial Education, Journalism, Mathematics, Microbiology, Physical Sciences, Physics, Sociology and Anthropology, Speech, and Zoology.
5. Master of Science in Education—Art, Biological Sciences, Economics, Educational Administration, Elementary Education, English, Foreign Languages, Guidance and Counseling, Health Education, Home Economics, Industrial Education, Instructional Supervision, Mathematics, Music, Physical Education, Physical Sciences, Secondary Education, Social Sciences, Special Education, and Speech.

A minor in economics may be counted toward the degrees, Master of Arts and Master of Science. A minor in geology may be counted toward any one of the three degrees listed above (except numbers 2 and 3). A minor in business administration may be counted toward the degrees, Master of Science and Master of Science in Education. A minor in recreation and outdoor education may be taken toward the degree, Master of Science in Education.

Courses for which graduate credit is given are numbered from 400 to 499 when they are open to advanced undergraduates as well as to graduate students. When they may be taken only by the latter, they are numbered from 500 to 599. No course numbered below 400 may be taken for graduate credit.

GENERAL REQUIREMENTS FOR THE MASTER'S DEGREE

Forty-eight quarter hours of acceptable graduate credit are required for the master's degree, except in fine arts where sixty quarter hours are necessary, and in psychology and rehabilitation counseling where seventy-two quarter hours are required. At least twenty-four quarter hours must be earned in courses numbered 500 or above. No more than sixteen quarter hours earned for work done in extension may be counted toward the degree; however, as much as twenty-four quarter hours of credit earned at a Southern Illinois University residence center will be accepted. A maximum of sixteen quarter hours of graduate credit ("B" or above) earned in another fully-accredited institution may be transferred to count toward the master's degree. Transfer and extension credits together may exceed sixteen quarter hours, only when work is taken at a residence center. In every case at least twenty-four quarter hours of credit must be earned on the Carbondale campus. No credit toward the degree may be earned in correspondence; and only credits earned within a six-year period preceding the completion of requirements for the degree will be counted toward it.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

A reading knowledge of a modern foreign language is required in all cases for the Master of Arts degree. The requirement also applies for the Master of Science degree in those departments which have an undergraduate language requirement. The major department will determine

whether the requirement is satisfied by one year of successful course work in the chosen language, or whether a special language examination, given by the foreign languages department, will be required. The foreign language requirement is to be fulfilled at least three months prior to graduation.

The requirement that a thesis be submitted is administered for each individual student by the chairman of the major department, the student's chief adviser, and the Dean of the Graduate School. In most cases the requirement is met by the presentation of a formal thesis, written in the conventional manner, rather than by the substitution of specific courses or special projects.

REQUIREMENTS FOR THE DEGREE—MASTER OF FINE ARTS

Sixty quarter hours of acceptable graduate credits are required for the Master of Fine Arts degree, of which a minimum of twenty-four quarter hours must be on the 500 level. Further information may be obtained by writing the Graduate School or the Department of Art.

REQUIREMENTS FOR THE DEGREE—MASTER OF MUSIC

Forty-eight quarter hours of acceptable graduate credits are required for the Master of Music degree, of which a minimum of twenty-four must be on the 500 level.

REQUIREMENTS FOR THE DEGREE—MASTER OF SCIENCE IN EDUCATION

Forty-eight quarter hours of credit are required for the Master of Science in Education degree. One who is a candidate for the degree, and a prospective teacher in the public schools of Illinois, must meet the minimum educational requirements for teaching in Illinois, as laid down by the State Teacher Certification Board: twenty-four quarter hours of Education, including eight quarter hours of student teaching and specific courses listed in the general catalog of the University. Any exception to this rule must be approved by the Dean of the College of Education and the Dean of the Graduate School. The student should seek counsel regarding the completion of these courses before his first enrollment for graduate work.

The thesis requirement will be administered for each individual student by the chairman of the major department, the student's chief adviser and the Dean of the Graduate School. For majors in educational administration and elementary education, Education 500 and Guidance and Special Education 420 or 421 or 422 will be required in lieu of the thesis. There is no foreign language requirement for the degree Master of Science in Education.

REQUIREMENTS FOR THE SPECIALIST'S CERTIFICATE (Sixth Year Program)

Forty-five quarter hours of work beyond the Master's degree, selected with particular regard for each candidate's training and experience, are required for the Specialist's Certificate, which may now be earned in the fields of educational administration, instructional supervision, elementary education, and guidance and counseling. (Eventual authorization of work in other fields is expected.) No transfer or extension credit will be accepted.

It is desirable for all credit to be taken in full-time residence and highly recommended that not more than sixteen quarter hours be allowed for evening and Saturday courses. Students enrolled full-time on campus may earn as much as twelve hours per quarter. Those who are executing the duties of a regular teaching or administrative position may carry no more than one course per quarter. Candidates for the Specialist's Certificate may ordinarily take no more than eight hours at the 400 level.

A field study is required of each candidate for the Specialist's Certificate. Its nature and the number of hours credit it will carry are determined in each case by an advisory committee, which is named by the Dean of the Graduate School. Credit for the field study will range from six to nine hours.

Applicants should have had three years of successful teaching or administrative experience and must have had two. Candidates are to continue their specialization in the same areas in which their majors and minors were earned at the master's level. The advisory committee will design a course of study to fit the needs of each candidate in terms of his educational background and plans for the future.

REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY DEGREE

Those interested in obtaining a doctor's degree should watch for special announcements from time to time, consult the Graduate Bulletin, or request to have their names placed on the Graduate School mailing list. Candidates for the Doctor of Philosophy degree in Government or Speech Correction may be accepted beginning with the Fall Quarter of 1956; candidates for the Doctor of Philosophy degree in Education or Psychology may be accepted beginning with the Fall Quarter of 1957.

CURRICULA FOR MASTER'S DEGREE MAJORS

IN COLLEGE STUDENT PERSONNEL WORK

This is a two-year program with seventy-two hours of credit required. The student, in co-operation with his adviser, develops a program of studies as follows: (1) 16-20 hours of general or breadth courses selected from Curriculum and Administration in Higher Education, Advanced Psychology, Statistics, Mental Hygiene, Tests and Measurements, Research Methods, the College as a Community, and Home and Family Life; (2) 20-24 hours of courses in the major field composed of Student Personnel Work in the Resident Halls, Philosophy and Techniques in Student Personnel Work, the Living Center, Administration of College Student Personnel Services, Case Methods, Group Dynamics, Counseling, and Individual Research; (3) 16-20 hours of course work selected from the various practicums. These courses provide practical experience under supervision in the areas of counseling, group activities, housing, student aids, administration, and measurement. The student is limited to not more than 8 hours in any one area; (4) 12-16 hours of electives. Graduates of this program are trained in both the theoretical and practical aspects of student personnel work.

IN EDUCATIONAL ADMINISTRATION

Students majoring in educational administration are required to take Educ. 424, 456 or 556, 460, 500, 533 or 534; Guid. 420 or 421 or 422. In

addition elective hours may be taken in Educ. 412 or 523, 557, 564; Guid. 442, so as to total at least 32 quarter hours in these two areas.

Those students who have had any of the above 400 level courses at the undergraduate level will be expected to substitute other graduate courses from the next succeeding listing in order to complete a forty-eight hour degree requirement. Since it is not mandatory that a minor be declared, an additional sixteen quarter hours may be selected from courses in the succeeding listing. Only those who are now actively engaged in positions involving school administration or those who contemplate such placement should follow this curriculum: Educ. 430, 432, 470, 501-510, 535, 539, 540, 554, 575, 597-599; Guid. 542, 562.

IN ELEMENTARY EDUCATION

The graduate major in elementary education consists of 40 quarter hours of guided electives. Students who have not had Guidance and Special Education 422 (or its equivalent) in their undergraduate work will be required, in lieu of the thesis, to take this course and Education 500 (formerly 499). Majors in this area should take at least 40 quarter hours from the following courses offered by the Department of Education: 430, 432, 433, 457, 461, 465, 470, 500, 501-510, 523, 533, 534, 535, 540, 541, 542, 543, 550, 554, 555, 556, 557, 561, 563, 575, 597-599.

Courses in the Department of Guidance and Special Education from which up to eight quarter hours may be taken to be applied toward the major in elementary education are as follows: 414, 420, 422, 425, 426, 442, 515, 526, 528, 536, 562.

IN GUIDANCE AND COUNSELING

A 32 quarter hour major is required and a 48 quarter hour major is recommended. Courses listed as required are mandatory unless the student is advised otherwise by the chairman of the advisory committee.

Required courses for elementary school guidance workers: Guid. 421 or 422, 442, 526 or 426, 542, 543.

Recommended electives: Guid. 414, 420, 425, 500-510, 515, 520, 524, 545, 562, 564, 570, 576, 580; Educ. 437 or 540.

Required courses for secondary school and college guidance workers: Guid. 421 or 422, 442, 523, 526 or 426, 541, 542, 543.

Recommended electives: Guid. 414, 420, 425, 440, 500-510, 515, 520, 528, 545, 562, 564, 570, 576, 580; Educ. 437 or 540.

IN INSTRUCTIONAL SUPERVISION

The major in instructional supervision consists of a minimum of 32 quarter hours of approved graduate credit in the area, plus a 16 quarter hour minor or that number of credits in guided electives. Students who major in instructional supervision are expected to take 32 quarter hours from the following courses: Educ. 424, 456 or 556, 460, 461, 462 or 550, 500, 575; Guid. 420 or 421 or 422, 515.

Students will be expected to satisfy a 16 quarter hour minor or that number of credits in guided electives. Selection should be from: Educ. 437,

441, 442, 465, 470, 540, 541, 542, 543, 554, 555; Guid. 414, 442, 513, 520, 523, 525, 542, 562.

A major in instructional supervision may also be earned under the graduate internship program described below.

IN SECONDARY AND COLLEGE EDUCATION

Those who wish to work in the area of secondary and college education should take a major of at least thirty quarter hours of credit in an academic department or field, and a minimum of sixteen quarter hours in the Department of Education or in the Department of Guidance and Special Education. The major may be obtained in art, the biological sciences, English, foreign languages, health education, home economics, industrial education, mathematics, music, physical sciences, social sciences, and speech. If work in two academic departments is combined in a field major, no fewer than ten quarter hours of credit may be counted in either. If the field major comprises work in three departments, at least eight quarter hours of credit are required in each.

IN SPECIAL EDUCATION

No particular group of courses is listed for the major in special education, since each student must specialize in one particular area, such as deaf and hard of hearing. Among the more general courses which majors in special education will take, however, are these, in the Department of Guidance and Special Education: 413, 414, 417, 428, 515, 562, 577.

Other courses will be selected by the adviser in each particular case, according to the area in which the student is specializing.

THE GRADUATE INTERNSHIP PROGRAM

The Southern Illinois University Teacher-Supervisor-Administrator Internship Program is designed to meet the needs of graduate students who desire to obtain practical experience in a public school while working toward the degree Master of Science in Education, the Professional Certificate in Education on the six-year program, or the degree Doctor of Philosophy. Graduate students may enroll in either a teaching, a supervising, or an administrative curriculum, and may major on either the secondary or the elementary level. The form upon which application for admission is made may be secured from the Director of Teacher Training and Graduate Internship, and should be completed and returned to him at the earliest possible date. Interns will be admitted in the order in which their applications are approved.

The schedule according to which credits in the Graduate Internship Program for the Master of Science in Education Degree and the Professional Certificate in Education on the six-year program are earned is as follows:

	Quarter hours
1. Summer term on campus	12
2. The regular school year (during this period the student will be working under the supervision of a consultant from the office of the Director of Teacher Training and Graduate Internship).	

- | | |
|--|----|
| a. A field study | 4 |
| b. Two Saturday or evening courses | 8 |
| c. Teaching, supervisory, or administrative duties assigned by the public school and the University consultant acting together, on a half-time basis. The co-operating public school will pay the intern a salary of approximately one-half that which would be received for full-time work. | 0 |
| d. One-half-time devoted to a "practicum" assigned by the consultant. | 12 |
| 3. Summer term on campus | 12 |

Students working on the Doctor of Philosophy Degree (when available) will work on a schedule designed to meet their individual needs.

Prerequisites for participation in the Graduate Internship Program are as follows:

1. The application for admission should be filed with the Director of Teacher Training and Graduate Internship no later than the beginning of the spring quarter which precedes the summer session immediately prior to the actual internship.
2. In order for the applicant to be accepted, the application must receive the approval of the Dean of the Graduate School, the Director of Teacher Training and Graduate Internship, and the administrator of one of the public schools approved for the program.
3. In order for the application to be approved, the applicant must be a graduate of an accredited college or university, with a minimum of thirty-two quarter hours of education including student teaching, and must be certified to teach in the State of Illinois.
4. Following acceptance, the applicant must meet with the Director of Teacher Training and Graduate Internship and an adviser so that a suitable curriculum can be designed.
5. Such factors as emotional maturity, adherence to democratic principles, moral character, and scholarship will be taken into consideration in the admission of applicants to the Graduate Internship Program.

A GRADUATE STUDENT'S TIMETABLE

The following dates are for the guidance of the student, who is advised to plan to finish each task well in advance of the deadline, and reminded that failure to meet an established deadline may result in postponement of graduation.

1. The Graduate Aptitude Test is to be taken the first term in which the student is enrolled in a course given on the campus.
2. Any general or departmental foreign language requirement is to be met at least three months prior to graduation.
3. The thesis subject is to be approved by the chairman of the advisory committee at least two terms (twenty weeks) before the date of graduation and is to be reported by the student to the Graduate School Office.

4. The student is to supply a copy of his thesis to each member of the final examination committee at least two weeks before the final examination.
5. The preliminary checkup and application for graduation are to be made at least three weeks prior to the graduation date, with the Graduate School Office and the Registrar.
6. The final examination must be taken at least two weeks before the date of graduation.
7. The completed thesis must be approved by the Dean of the Graduate School at least ten days prior to graduation. Since the Dean may require certain changes, it should be presented for his inspection at an earlier date.

COURSES IN THE GRADUATE SCHOOL

Graduate courses are in two categories:

1. Courses numbered 400 to 499 are open to both advanced undergraduate and graduate students. Seniors who wish to receive graduate credit for a 400 course during their last term of undergraduate study must apply for admission to the Graduate School and must obtain, at the time of registration, the approval of the instructor and the Dean of the Graduate School; and the instructor must indicate on the grade sheet which is submitted to the Registrar at the end of the term that the student has earned graduate credit in the course.
2. Courses numbered 500 to 599 are open only to graduate students. Undergraduates of advanced senior standing who are within sixteen quarter hours of graduation may take 500 courses for graduate credit, during the last term of undergraduate study, by making application to the Graduate School.

A minimum of twenty-four quarter hours of credit earned in 500 courses is required for the master's degree.

ART

Graduate courses in art may be taken leading to the degrees Master of Fine Arts, Master of Science, and Master of Science in Education. Additional information may be secured by writing the Graduate School or the Department of Art.

- 465-2 to 12. *Research in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E).*
- 490-2 to 12. *Studio in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E).*
- 500-2 to 12. *Seminar in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E).*
- 510-2 to 12. *Research in Painting (A), Pottery (B), Metal Construction (C), Art Education (D), or Print Making (E).*
- 599-5 to 9. *Thesis.*

BOTANY

Graduate courses in botany may be taken as a major or minor leading to the degrees Master of Arts and Master of Science, or as a part of a biologi-

cal science major leading to the degrees Master of Arts, Master of Science, and Master of Science in Education.

- 403-2 to 5. *Advanced Taxonomy*. An advanced study of any division of the plant kingdom, both native and cultivated. Laboratory and field work. Transportation charges, \$10.00. Prereq, 101, 203.
- 407-4. *Introduction to Statistical Inference*. (Same as Math. 407.) A basic introduction to the simpler problems in an applied field. Descriptive statistics; elementary probability; binomial, poisson, normal distributions; confidence limits of parameters; significance tests. Prereq, Math 113.
- 411 (302)-5. *The Bryophytes and Pteridophytes*. A study of the structure, development, and relationships of the liverworts and mosses, and the ferns and fern allies. Laboratory, Prereq, 101, 202.
- 412 (303)-5. *The Spermatophytes*. A study of the structure, development, and relationships of the gymnosperms and angiosperms. Laboratory. Prereq, 101, 202, 203.
- 425-5. *Advanced Plant Physiology I*. A study of the water relations, mineral nutrients, and colloidal phenomena in plants. Laboratory. Prereq, 101, 202, 210, 320. Desirable antecedents, year of chemistry, some physics.
- 426a-3. *Biochemistry and Physiology of Microorganisms*. (Same as Microbiology 425.) 3 hours lecture. Prereq, Micro. 311 and organic chemistry. Fall.
- 426b-2. *Biochemistry and Physiology of Microorganisms*. (Same as Microbiology 426.) 4 hours laboratory. Fall.
- 430-5. *Advanced Plant Physiology II*. A study of photosynthesis, plant pigments, plant foods, enzymes, respiration, growth, and movement. Laboratory. Prereq, 101, 202, 210, 320. Desirable antecedents, year of chemistry, some physics.
- 450-5. *Plant Geography*. A world survey of natural areas of vegetation. Evolution of floras and present distribution. Prereq, 101, 202, 203, or approval of instructor.
- 450a-5. *Grasses*. Taxonomy, distribution, and uses of grasses. Prereq, 101, 202, 203, or permission of instructor.
- 470-4. *Methods in Biology*. (Same as Zoology 470.) A study of methods, objectives, types of courses. Laboratory and field trips to Southern Illinois high schools.
- 480 (380)-4. *Classic Principles of Botany*. A consideration of theories, principles, and developments in the various divisions of the plant sciences. Prereq, 101, 131 or 350.
- 510-5. *Bio-Ecology*. (Same as Zoology 510.) A study of the composition and development of biotic communities, and of the relationships of plants and animals to their environment. Prereq, approval of dept. Laboratory and field trips. Field trip cost to the student \$10-20.
- 520-5. *Physiology of the Fungi*. A study of the environmental and nutritional factors involved in the growth, reproduction and metabolism of the fungi. Prereq, approval of dept.
522. *Advanced Histological Technique*. A study in the preparation and

- presentation of research materials. Laboratory work only. Prereq, approval of dept. Credit on work completed.
- 525-5. *Cytology*. Microscopical study of protoplasm, including mitosis and meiosis; discussions of cytological behavior. Laboratory. Prereq, approval of dept.
- 540-5. *Advanced Ecology*. Ecology of grasses, grasslands, forests, and arable lands; studies in secondary succession. Field trips. Cost to students about \$10. Prereq, 340 or equivalent.
- 570-2 to 5. *Reading*.
- 590-2 to 4. *Introduction to Research*. Methods of presentation of research materials, including written reports, graphs, photographs, bibliographies
- 591-3 to 9. *Problems and Introduction to Research*. Assignments involving research and individual problems. Prereq, approval of dept. Students to register for not fewer than 3 hours per term not more than 3 terms.
- 599-3 to 9. *Thesis*. Work involved in the research for and presentation of a thesis. Not more than 9 hours nor fewer than 5 hours will be allowed on thesis work. Student advised to take no more than three hours per term. Before applying for the full nine hours, student should check the total hours in 591 and 599, which cannot exceed 15 hours.

BUSINESS ADMINISTRATION

Graduate courses in business administration and economics may be combined for a major leading to the degree, Master of Science. Graduate courses in business administration may be taken as a minor leading to the degrees, Master of Science and Master of Science in Education.

- 401-4. *Problems of Business Education*. A survey of the fundamentals of business education with particular reference to the history and status of business education and the problems related to the business curriculum, objectives, types of learning, instructional materials, and measurement and standards of achievement. Prereq, permission of instructor.
- 402-4. *A review of Research in Business Education*. A study of business education based on the findings of research in the field. Attention given to the problems studied, the investigational procedures used, and the major findings and conclusions of the outstanding research workers in business education. Prereq, permission of instructor.
- 403 (302)-3. *The Teaching of Typewriting*. A study of methods, materials, tests, programs, and other aspects of the teaching of typewriting in high schools. Prereq, 213, or equivalent.
- 404 (303)-3. *The Teaching of Shorthand*. A study of methods, materials, tests, programs, and other aspects of the teaching of shorthand in high schools. Prereq, 216, or equivalent.
- 405 (304)-3. *The Teaching of Basic Business Subjects*. A study of methods, materials, tests, programs, and other aspects of the teaching of high school business subjects other than shorthand or typewriting. Prereq, permission of instructor.

- 459-4. *Internship in Accounting*. Supervised work experience in professional accounting. Prereq, outstanding record in accounting and recommendation of the committee on internship.
- 471-4. *Business Organization and Management*. A study of business organization and management, theory, and practice. Prereq, 370.
- 472-5. *Small Business*. A study of the position of small business in the national economy, including the organization, financing, location, personnel policies, merchandising practices, records, government regulations, and taxes.
- 473-4. *Business Enterprise and Public Policy*. Some major problems of social control of business arising out of the operation of business in modern society; the necessity for control, types of control from business self-regulation to government ownership, the effect of control on business, and the general effect of control on the well-being of society.
- 475-4. *Budgeting and System*. Budgeting and system as aids in co-ordinating and directing business operation. Prereq, 253 and 320.
- 479-2 to 8. *Problems in Business and Economics*. Application of economic theory to practical business problems. Open to undergraduate majors in business administration or economics, or to graduate minors in business administration or economics.
- 500-2 to 5. *Readings in Business Administration*. Direct readings in classical and current writings on selected topics.
- 501-2 to 5. *Individual Research in Business Administration*. Directed research in selected areas of Business Administration.
- 599-2 to 9. *Thesis*.

The following graduate courses in economics may also be counted toward a minor in business administration or toward a combined business administration-economics major: 416, 440, 450, 470, 481, 500, 501.

CHEMISTRY

Graduate courses in chemistry may be taken as part of a physical science major leading to the degrees, Master of Arts, Master of Science, and Master of Science in Education. Graduate chemistry courses may be taken alone as a major or minor toward the degrees, Master of Arts and Master of Science.

- 411-3. *Advanced Inorganic Chemistry*. Modern inorganic chemistry involving atomic structure, chemical bonds, complexes and chelate structures; chemistry of familiar and less familiar elements. Prereq, 221, 231, 232, 342.
- 431-3. *Quantitative Organic Chemistry*. The determination of functional groups and elements commonly found in organic compounds by selected methods of analysis; illustration of general method of procedure in the field of quantitative organic chemistry. Prereq, 231, 232, and 343. Fall.
- 435-2 to 5. *Instrumental Methods of Analysis*. Theory and practice of instrumental analytical measurements. Included are spectropotometry, refractometry, potentiometry, polarography and others. Lect.; lab. Prereq, 231, 232, and one year of physics.

- 441-4. *Qualitative Organic Analysis*. A systematic study of the separation and identification of organic compounds by a procedure based on solubility and classification reagents. Prereq, 221 and 343. Winter.
- 451-4. *Biological Chemistry*. A study of carbohydrates; fats and related substances; proteins and amino acids, enzymes, digestion, absorption, and detoxication. Prereq, 306 or 343, or registration in 343. Mr. Scott. Spring.
- 452-4. *Biological Chemistry*. A study of the blood and lymph; acid-base regulation; metabolism of carbohydrates, lipids, and proteins; urine; calorimetry and energy metabolism; nutrition and vitamins; and hormones. Analysis of urine and blood. Prereq, 232 and 451. Mr. Scott. Summer.
- 461-4. *Physical Chemistry*. Lecture and laboratory. A study of gases, liquids, solids, solutions, homogeneous and heterogeneous equilibria. Prereq, 231, 232, and 343; Mathematics 252; Physics 106, 107, and 108. Mr. Van Lente. Fall.
- 462-4. *Physical Chemistry*. Lecture and laboratory. A continuation of 461, including a study of chemical kinetics, electrical conductance, electromotive force, and electrolytic equilibrium. Prereq, 461. Mr. Van Lente. Winter.
- 463-4. *Physical Chemistry*. Lecture and laboratory. A continuation of 462, including chemical thermodynamics, the quantum theory, nuclear structure, photochemistry, atomic structure, and molecular structure. Prereq, 462; Physics 306. Mr. Van Lente. Spring.
- 471-4. *Industrial Chemistry*. A survey course on modern industrial chemistry, including a study of chemical literature, and an introduction to chemical research processes. Prereq, 342 and a reading knowledge of German (or French). Mr. Hadley. Spring.
- 475-1, 476-1. *Seminar*. Required of senior chemistry majors. Winter, Spring.
- 491-3 to 12. *Senior Research*. Chemical research on relatively simple problems under direction of staff members. Prereq, major in chemistry with "B" average and departmental approval. 10 hrs. of laboratory a week.
- 501-3. *The Chemical Bond*. Atomic structure based on a qualitative application of quantum mechanics. Ionic and covalent bonds; and structures of molecules. Lecture. Prereq, 343, 463, or equivalent.
- 511-3. *Advanced Inorganic Chemistry*. Modern valence theory applied to various types of structures and reactions, including some of the less familiar elements and compounds. Lecture. Prereq, 501 and a reading knowledge of German or French.
- 512-2. *Inorganic Preparations*. Preparations to stress points of theory and practice in techniques of synthesis involving volatile compounds and nonaqueous solvents. Lecture and Lab. Prereq, 511.
- 513-3. *Co-ordination Compounds*. A systematic study of co-ordination compounds, their structure and properties. Lecture and lab. Prereq, 511 and a reading knowledge of German or French.
- 531-5. *Advanced Analytical Chemistry*. A study of the more complex methods of analysis and separation, including gasometric and elec-

- trometric measurements. Lecture and lab. Prereq, 232 and 343 or equivalent.
- 535-2 to 4. *Current Topics in Analytical Chemistry*. Theory of analytical techniques and current industrial applications. Lecture. Prereq, 531.
- 541-3. *Advanced Organic Chemistry*. An advanced course with emphasis on principles, theories, mechanism of reactions, and electronic interpretations. Lecture. Prereq, 343, or equivalent.
- 542-3. *Advanced Organic Chemistry*. A continuation of Chem. 541. Lecture. Prereq, 541.
- 543-3. *Advanced Organic Chemistry*. Lectures and collateral reading on selected phases of Organic Chemistry. Lecture. Prereq, 343 or equivalent.
- 546-2. *Advanced Qualitative Organic*. Analyses of more complex mixtures, and with more specific derivatives. Lab. Prereq, 441 or its equivalent.
- 549-3 to 9. *Organic Syntheses*. Application of the newer and less common reactions to organic syntheses. Lab. Prereq, 343, 543, (or registration in 543).
- 553-3. *Biochemistry of Vitamins and Hormones*. The study of the role of vitamins and hormones. Lect. and Lab. Prereq, 452.
- 554-3. *The Chemistry of Enzymes*. The study of the nature, isolation, specificity, kinetics of their action, and the role of enzymes in metabolic processes. Lect. and lab. Prereq, 452.
- 563-3. *Electrochemistry—Theoretical*. The theory of electrochemistry. Lect. and lab. Prereq, 463 or equivalent.
- 564-2. *Electrochemistry—Applied*. The application of electrochemical processes. Lecture. Prereq, 563 or equivalent.
- 565-3. *Colloids*. A study of the colloidal state of matter. Lect. and lab. Prereq, 463 or equivalent.
- 591, 592, 593-3 each. *Research*. Research in the several fields of chemistry. 10 hours per week. Prereq, consent of the instructor.

ECONOMICS

Graduate courses in economics and business may be considered for a major leading to the degree Master of Science; graduate courses in economics may be taken as part of a social science major leading to the degree Master of Science in Education, and as a minor toward the Master of Arts, Master of Science, and Master of Science in Education degrees.

- 401-3 to 6. *Economic Readings*. Reading in books and periodicals, in a defined field, under direction of one or more staff members. Periodic written and oral reports. Prereq, approval of chairman.
- 411-4. *Collective Bargaining and Dispute Settlement*. Nature, issues, procedures, economic effects. Analysis of actual collective bargaining situations.
- 416-4. *Money and Banking II*. Emphasis upon the Federal Reserve and other banking systems. Prereq, 315.
- 432-3. *Fiscal Policy of the United States*. Countercyclical, secular, and emergency use of government expenditures, debt, and taxes.

- 436-3. *Government and Labor*. A study of labor relations and legislation considering both constitutional and economic aspects. Prereq, Econ. 205 and Govt. 101 or 231 or 300; or the consent of instructor. This course same as Government 436.
- 440-3. *Intermediate Theory*. A more intensive treatment of price and income theory.
- 450-3. *History of Economic Thought*. Great economists and the development of economic theory.
- 451-3. *Economic Theories*. A study of the theories of recent leading economists.
- 460-4. *Russian Economy*. A study of the development of Russian trade, agriculture, industry, government, finance, and standards-of-living in successive periods in relation to the historical, geographic, economic, and ideological background. Prereq, 205.
- 470-3. *Business Cycles*. Major business fluctuations in the United States—prices, employment, production, credit, inflation and deflation, and government action during the cycles. Prereq, 315 or 440.
- 481-3. *Comparative Economic Systems*. Capitalism, socialism, fascism, and other forms of the economy.
- 500-3 to 5. *Economics Seminar*. A study of a common, general topic in the field of economic theory, with individual reports on special topics.
- 501-3 to 5. *Economic Readings*. Contemporary books and periodicals in economics.
- 599-3 to 9. *Thesis*.

EDUCATION

Graduate courses in education may be taken for a major in educational administration, in instructional supervision, and in elementary education, all leading to the degree Master of Science in Education. Graduate education courses may also be taken as a minor in the area of secondary and college education, toward the Master of Science in Education degree; and a minor leading to the degrees, Master of Arts and Master of Science.

- 401-2. *Problems in Public School Reading*. Requirements: attendance at all sessions of a reading conference; preparation of a paper showing practical applications of theory to the student's own teaching situation. Summer.
- 404-4. *Library Materials for Adolescents*. Evaluation, selection, and use of books, magazines, recordings, films, and other materials suitable for the needs, interests, and abilities of young people 13 to 18 years old and for curriculum enrichment in secondary schools. Review of selected research in the field of young people's reading. Open to juniors, with consent of instructor.
- 405-4. *Library Materials for Children*. Evaluation, selection, and use of books, magazines, recordings, films, and other materials suitable for the needs, interests, and abilities of children and for curriculum enrichment in elementary schools. Review of selected research in the field of children's reading. Open to juniors, with consent of instructor.

- 412-4. *Illinois School Law*. Designed to provide (a) interpretation and understanding of Illinois school laws and (b) competency in fulfilling, administering, and evaluating provisions of the school laws of the State of Illinois. Includes study of Federal legislation and court decisions affecting Illinois public schools. Open to senior and graduate students.
- 424-4. *School Administration*. A course designed primarily for those who look forward to positions as supervisors, principals, or superintendents. Prereq, Guid. 305.
- 430-4. *History of Education*. To present the historical background of present day education; to trace the evolution of educational ideals and practice in response to social needs and to the contributions of philosophic and scientific thought. Prereq, Guid. 305.
- 432-4. *Public Opinion, Propaganda, and Education*. A course analyzing, classifying, and giving means of combating propaganda. Designed to show how public opinion is formed by use of current materials from the different channels of communication. The differences between propaganda and indoctrination.
- 433-4. *Workshop in Elementary Education*. A course designed to meet the immediate needs of in-service teachers in such areas as curriculum adjustment, remedial teaching, child development. No credit if student has had 333 or 390.
- 434-1 to 3. *Administrator's Workshop*. This is a special program for the consideration of administrative problems pertinent to superintendents, high school principals, and elementary school principals of Southern Illinois. The workshop is usually held during the week following the close of the Winter Quarter. Credit to be arranged and allowed only one time.
- 435-4 to 8. *Workshop in Elementary School Foreign Language Instruction*. Designed to assist elementary school teachers in integrating foreign languages into their teaching program as well as to encourage high school teachers to introduce or supervise foreign languages at the elementary school level. To count as foreign languages or education. Prereq, basic language credit.
- 437-4. *Problems in Reading*. Practices and trends in the teaching of reading; materials of instruction in reading, particularly remedial materials; techniques and materials for prevention of reading difficulties; diagnosis and remediation of reading difficulties. Prereq, Education 337. Not open to students having had 540.
- 441-4. *Teaching Elementary Science*. A workshop course for teachers of elementary school science.
- 442-4. *Materials and Methods in Elementary School Science*. Study of content and methods in elementary school science.
- 456-4. *School Supervision*. The function of the principal or supervisor in the improvement of instruction. Some activities, methods, and devices for improving the effectiveness of teaching. A course for present and prospective principals or supervisors who wish to familiarize themselves with accepted principles of supervision in

- elementary and secondary schools. Prereq, three courses in education.
- 460-4. *Curriculum*. Modern practices and procedures in curriculum development; principles and practice in evaluation and construction of curriculum areas, with attention to the professional, social, economic, and other major factors in curriculum planning. Prereq, consent of instructor. Not open to students having had 561.
- 461-4. *The Elementary School Curriculum*. A critical study of the reorganization, construction, and administration of the elementary school curriculum. The basic issues in realizing a sound curriculum, and to the installation, adaptation, and administration of the revised curriculum. Not open to students having had 460 or 561.
- 463-4. *Workshop in School Public Relations*. To meet the needs of teachers, supervisors, and administrators in the area of public relations.
- 465-4. *Seminar in Psychology of Elementary School Subjects*. Psychological principles of learning applied to the mastery of materials used in elementary school subjects. Prereq, 314, Guid. 305.
- 470-4. *Extra-Class Activities*. Student expected to specialize in one extra class activity in terms of his own interests and needs. Prereq, consent of instructor.
- 500-4. *Research Methods*. Practical training in research and writing techniques in the field of education. Bibliography materials, footnotes, use of the library. Recommended that students have had Guid. 420, 421, or 422.
- 501-510-4 hr. each. *Graduate Seminars in Education*. For majors and minors. How to choose research topics and how to conduct research activities. The selection of a subject for research and the presentation of it before the group.
502. *Seminar in Comparative Education*. A study of the educational ideas and practices of various countries of the world, both Eastern and Western, and their impact upon our culture and education.
506. *Seminar in Development of Curriculum in American Public Education*. To interpret the influence of socio-economic conditions in American history upon curricular content and method. It emphasizes the interpretation of curricular needs at all age levels in current education. Students select appropriate topics for research and present them to the class. Prerequisite, one graduate course in the area of curriculum.
- 511, 512, 512-4 hr. each. *Internship Practicum*. Courses of instruction aimed at closely relating the study of theory and practical experience, both being carried on simultaneously in conjunction with a co-operating public school and the College of Education. Open only to students who have been admitted to the internship program.
- 523-4. *Theory and Legal Basis of American Education*. Present-day objectives and principles of education in the light of the social theory upon which they rest. Guided reading and library research with individual and group conferences.
- 527-4 to 6. *Administrative Problems of Small Schools*. A field laboratory course for principals and superintendents, both elementary and

secondary, focused upon specific problems presented by the students. Two days a week devoted to visiting schools in the area, and the remaining days spent in research and in seminar. Problems of plant construction and maintenance, budgeting, evaluation, curriculum, classroom organization, office practice, and administration. Specialists used as consultants when possible. Limited to administrators.

- 533-4. *School Buildings*. A course dealing with those various phases of physical plant design and maintenance of concern to the school administrator. Students who have had Education 525 not to enroll in this course for credit. Recommended that students have had 424 or 563.
- 534-4. *School Finance*. A course dealing with the fiscal administration of public education at the national, state, and local levels. Students who have had Education 525 not to enroll in this course for credit. Prereq, 424.
- 535-4. *Research in Problems of Administration*. An intensive four-weeks course for school principals on theory and principles of administration for small schools, special administrative problems, school plant evaluation, curriculum revision, class scheduling, budgeting and school accounting, community relationships, supervision, pupil accounting, and evaluation of instructional services.
- 539-4. *Community Development Through the School*. A course requiring comprehensive survey of the resources of a particular community; the cataloguing of material for use by the teachers of the community, to help determine needed curriculum changes.
- 540-4. *Developmental Reading*. A course to give aid to the teachers of reading. Course so designed for teachers of reading that prerequisite courses are not necessary. Not open to students having had 337 or 437.
- 541-4. *Selected Teaching and Curriculum Problems in Elementary School Science*. A course designed to help teachers with the problems of teaching science in the elementary school: aims, methods, materials, and equipment. Special emphasis placed upon grade placement of materials and the use of community resources.
- 542-4. *Language Arts in the Elementary School*. A study of the practical bearing of investigation and theory on the improvement of current practices in the teaching of the language arts, other than reading. Attention given to evaluation of teaching materials in these areas.
- 543-4. *Teaching the Social Studies in the Elementary School*. Attention given to organization of material for teaching purposes, techniques of classroom presentation, bibliographies of materials, use of audio and visual aids to instruction, and techniques for evaluating student progress. Readings, lectures, and discussions related to required teaching experience.
- 550-4. *Core Curriculum in the Secondary School*. A course designed to help students gain a functional understanding of the core concept. Consideration given to techniques of selecting materials and to

- the co-operative planning of units of work. Critical study of current practices in this field. Prereq, 460.
- 554-4. *Contrasting Philosophies of Education*. A course dealing, both historically and contemporaneously, with the ideologies which have developed from different concepts of education; and emphasizing the alternatives facing American educators in the immediate future.
- 555-4. *Philosophical Foundations of Education*. A course examining, in the primary sources, the basic concepts which have influenced and are influencing modern education. (Not open to students who have had 355.)
- 556-4. *Seminar in Educational Supervision*. The major objectives of the course: to guide the student in research on present practice and experiment in supervision; to acquaint him with the theory and principles of supervision; to familiarize him with the courses of authoritative opinion and theory in the field; and to relate the theory and principles of supervision to those of teaching and administration. Prereq, 456.
- 557-4. *The Elementary Principalship*. This course is designed to meet many of the particular needs of persons interested in qualifying for appointments as elementary school principals. Other than considering the administrative responsibilities of the elementary principal, such topics as the grouping of pupils, the elementary school's curriculum, the evaluation of the school's program and personnel will be studied.
- 562-4. *Workshop in High School Curriculum*. This course is designed to permit students to work in groups on problems related to the high school curriculum. Such problems should originate in the schools where the students are employed or will shortly become staff members. The point of view maintained is that procedures should be very democratic. The instructor serves as a co-ordinator of activity; resource people are used freely. Prerequisite, one other graduate course in curriculum.
- 563-4. *Organization of the Elementary School*. An analysis of types of elementary school organization with special attention to influence of school organization upon the educational program. Application of research findings to selection and use of materials of instruction. Special consideration to students' professional problems.
- 564-4. *High School Principalship*. Designed to deal with problems met specifically by the high school principal. Emphasizes his role in relation to guidance, curriculum, schedule making, extra-curricular activities, public relations, budgeting of time, etc. Prereq, Educ. 424 and consent of instructor.
- 575-2 to 4. *Individual Research*. The selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental graduate staff. By special arrangement.
- 596-5 to 9. *Independent Investigation*. This is a field study required of each student working for the sixth year professional certificate. The work should be done in the setting of a school system where the student is employed or where full co-operation is extended.

The study will involve selecting of the problem, survey of pertinent literature, recording of results, and appropriate interpretations and summarizations.

599-5 to 9. *Thesis*. Minimum, 5 hr. credit; maximum, 9 hr. of total credit.

ENGLISH

Graduate courses in English may be taken for a major or a minor leading to the Master of Arts or the Master of Science degrees, and for a major toward the degree Master of Science in Education.

402-4. *Chaucer*.

403-4. *The English Language*. A history. Knowledge of German a desirable preparation for the course.

405-4. *Modern American Poetry*. A study of the important poets since Whitman.

406-4. *American Drama*. The rise of the theater in America, with reading of plays, chiefly modern.

407-4. *Literary Criticism in America*.

408-4. *Intellectual Background of American Literature*. The relationship of basic ideas in America to American literature. Prereq, 318.

424-4. *English Renaissance*. Non-dramatic literature.

431-4. *The Eighteen-Nineties*. Studies of English authors of the 1890's.

464-4. *Modern Continental Drama*. A survey of the continental drama of Europe since 1870; representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal.

467-4. *Studies in Prose Style*. Analysis of the methods and devices used by prose writers to obtain aesthetic and emotional effects.

468-4. *Aesthetics of Literature*. The basic principles of literary composition and appreciation, in the light of recent aesthetic theory.

469-4. *Modern Criticism*. Recent critics and critical attitudes, and practice in writing criticism.

485-4. *Problems in the Teaching of English*. Studies of the aims, methods, materials, tests, programs, and other aspects of English instruction in the high school.

492-4. *Advanced Creative Writing*. A laboratory course in creative writing. Prereq, 392, or consent of the instructor.

499-2 to 6. *Readings in English*.

500-2. *Materials and Methods of Research in English*. The principal tools of literary scholarship and the more important studies and journals. Practice in the preparation of selective bibliographies and scholarly reports.

501, 502, 503, 504, 505-4 to 8. *Individual American Writers*. Each course the intensive study of an American author selected for that term.

506-4. *Old English*. Old English grammar and readings. Credit for this course allowed only if the student also takes 516.

507-3. *Medieval Romances in English*.

508-4. *The Rise of Realism in American Fiction*. Extensive reading in American literature after the Civil War.

510-4. *Seminar*. Chaucer: Troilus and Criseyde and the Minor Poems.

- 511-4 to 8. *Studies. Problems in Middle English Literature.* Piers Plowman, Wycliff's tracts, Chaucerian and other works of the fourteenth century. Prereq, 403, History 322.
- 514-4. *Problems in Seventeenth-Century Literature.*
- 515-4. *Dr. Johnson and His Circle.* Personalities, critical attitudes, philosophies, politics, manners and customs, the development of Romanticism.
- 516-4. *Beowulf.* Prereq, 506.
- 517-4. *The Metaphysical Poets.* Donne, Herbert, Crashaw, Vaughan, and Traherne; their place in English poetry, their similarity to twentieth-century poets.
- 520-4. *The English Romantic Movement.*
- 521, 522, 523, 524, 525-4 to 8. *Individual English Writers.* Each course the intensive study of an English author selected for that term.
- 526-4 to 8. *Studies in the Victorian Essay.* Non-fiction prose of mid-nineteenth century England.
- 540-4. *The Essay.* The development of the essay from Sir Francis Bacon to the present.
- 545-4. *The Epic.* Epic poetry and its influence.
- 554-4. *Eighteenth-Century English Novels.* The origins of the novel, and its relation to other types of literature; the development of the novel through the eighteenth century; the early novel as an art form and a social instrument.
- 555, 557-4. *Studies in the Victorian Novel.* Reading, research, and reports. The first course to extend to about 1860; the second, to 1900.
- 560-4. *Elizabethan Drama.*
- 561-4. *The Restoration and Eighteen-Century Drama.* English drama from the Restoration to 1800.
- 562-4. *The Development of the Tragic Drama from Aeschylus to the Present Time.*
- 566-4. *Shakespeare.* A review of the works of Shakespeare, extensive work in the Shakespeare scholarship.
- 577-4. *Naturalism in the Novel and the Drama.* Philosophical and literary naturalism, from the late nineteenth century to the present.
- 580-4. *Traditional Themes in Literature.* Persistent themes and legends in literature—King Arthur, Faust, Utopia, and the like.
- 599-2 to 9. *Thesis.*

FOREIGN LANGUAGES

Graduate courses in French, Spanish, or German may be taken as a major or a minor leading to the degrees Master of Arts and Master of Science in Education.

Before receiving either the Master of Arts or Master of Science in Education degree with a foreign language specialization, the candidate, as part of his regular examinations for the degree, must satisfactorily pass a written examination in the literature of his language specialty and an oral examination in that language itself.

For the Master of Science in Education degree, Romance Philology 410 is required for both French and Spanish majors. For the Master of Arts degree, Romance Philology 410 and 515 are required for both French and

Spanish majors. All romance philology courses may be counted toward either French or Spanish majors. Other course requirements will be determined upon the basis of the student's undergraduate preparation.

Students may major in Latin by special arrangement with the department.

FOREIGN LANGUAGE

435-4 to 8. *Workshop in Elementary School Foreign Language Instruction.* Designed to assist elementary school teachers in integrating foreign languages into their teaching program as well as to encourage high school teachers to introduce or supervise foreign languages at the elementary school level. To count as education or foreign languages. Prereq, basic language credit.

FRENCH

- 440-2. *French Poetry of the Renaissance.* A study of the development of French poetry from 1550 to 1600.
- 500-2. *Seminar in Contemporary French Literature.* Intensive study of the "roman fleuve" as exemplified in the works of Duhamel, Martin du Gard, and Romains.
- 501-2. *Seminar on a Selected French Author.* Intensive study of one author—his life, his work, and his place in the literary and cultural developments of civilization.
- 509-4. *French Literature from 1800 to 1850.* A study of Romanticism in French literature and of its relation to the general European Romantic movement.
- 510-4. *French Literature from 1850 to 1900.*
- 511-3. *Twentieth-Century French Drama.* A study of French drama from 1900 to the present.
- 520-4. *Graduate Composition and Diction.* Composition based on study of contemporary French authors; individual work in pronunciation and diction determined by entrance tests.
- 599-2 to 9. *Thesis.*

GERMAN

- 401-2. *Goethe's Faust, Part I.* The Faust legend and early Faust books and plays; the genesis of Goethe's Faust; reading of Part I. Lect, reports.
- 402-2. *Goethe's Faust, Part II.* Reading of Part II; study of symbolisms, such as Part II's blending of paganism with Christianity, ancient Greek culture with Germanic culture, Helen's Classicism with Faust's Romanticism. Lect, reports.
- 403-3. *German Ballads and Lyrics.* A selective study of the foremost examples of German balladry and lyric poetry, ranging from the poetry of Klopstock and Burger to that of Rilke and Werfel. Lect, recitations.
- 411-3. *Middle High German, I.* Study of the grammar and selective readings in such national epic poems of the Middle High German Period as the Nibelungen Lied and Gudrun. Lect, reports.

- 412-3. *Middle High German, II.* Study of the courtly epic poetry of such representative authors as Wolfram von Eschenbach, Gottfried von Strassburg, Hartmann von Aue, and the lyric poetry of Walther von der Vogelweide. Lect, reports.
- 500-2. *Seminar in Contemporary German Literature.* Intensive study of the works of representative German authors, with special reference to the correlation existing between literary expression and social, economic, and political conditions since 1900. Lect, outside readings, reports.
- 501-2. *Seminar on a Selected German Author.* Intensive study of one author: his life, his work, and his place in the literary and cultural development of civilization. Lect, outside readings, reports.
- 511-3 to 9. *Thesis or Research in German Literature.* For students who are writing a thesis or making an advanced graduate study of some phase of German literature. Lect, compilation of bibliographies, other research techniques, papers. 2 to 4 hr. each (maximum of 9 hr).
- 591-2 to 6. *Seminar on Kant.* A selective study of the works of Immanuel Kant, with special emphasis on the influence exerted by Kantian philosophy on subsequent German literature. Course counted on a major in philosophy, subject to the consent of the Department of Philosophy. Lect, outside readings, reports. 2 hr. each.

SPANISH

- 415-3. *Spanish Phonetics.* Analysis of the sounds of Spanish and their manner of production; special drill in connected passages of prose and poetry.
- 500-2. *Seminar in Latin-American Literature.* Intensive study of the modern novel in Latin America as an expression of social and cultural movements. Outside readings and class discussions.
- 501-2. *Seminar on a Selected Spanish Author.* Intensive study of one author: his life, his works, and his relationships to the literary and social currents of his time.
- 505-3. *The Picaresque Novel.* Class study of the Lazarillo, and collateral readings of other masterpieces of this genre.
- 506-3. *The Renaissance.* A study of the literature of the Renaissance in Spain, including the drama, the novel, the lyric poetry, and the histories of the Indies.
- 520-4. *Composition y Gramatica.* Free composition, based upon analysis of the style of contemporary Spanish authors, with special reference to grammatical constructions. Special projects in grammar.
- 525-3. *The Spanish Ballads.* The romance studies as a part of the literature and folklore of Spain and the New World.
- 530-3. *Latin-American Poetry.* Study of the modern trends in the poetry of Latin America as a whole, with emphasis on its international aspect and its relation to other literary forms. Prereq, 333, or consent of instructor.
- 599-2 to 9. *Thesis.*

ROMANCE PHILOLOGY

- 410-4. *Romance Philology, I.* A survey of the phonology, morphology, and syntax changes in Romance languages in general; special attention to the developments in French and Spanish for majors in these fields.
- 514-4. *Romance Philology, II.* Studies in syntax of Old French and Old Spanish, with special problems in the field of the student's major interest.
- 515-4. *Readings in Romance.* Selected readings in the literature of Old French and Old Spanish, with emphasis upon the student's major field. Prereq, Romance Philology 410, or equivalent.
- 516-4. *Arthurian Romance.* Intensive readings in the Arthurian Romances in the field of the student's major interest (French or Spanish) with reference to the genre as a whole. Prereq, Romance Philology 410, or equivalent.

GEOGRAPHY

Graduate courses in geography may be taken as a major or minor leading to the degrees, Master of Arts and Master of Science; and as part of a social science major leading to the degree, Master of Science in Education.

- 402-4. *The Soviet Union.* A study of the U.S.S.R. based on both a systematic and a regional approach. Appraisal of the natural-resource base of Russia as well as an estimate of her industrial and agricultural strength. Mr. Harper. Prereq, 100, 101, 210, or permission of instructor.
- 404-4. *Advanced Economic Geography I—Agricultural.* A functional study of the bases, interrelationships, and geographic distribution of agricultural production. Mr. Price. Prereq, 100, 101, 210, or permission of the instructor.
- 405-4. *Advanced Economic Geography II—Industrial.* A functional study of the bases, interrelationships, and geographic distribution of industries. Mr. Beimfohr. Prereq, 100, 101, 210, or permission of the instructor.
- 406-4. *Trade and Transportation.* Study of the pattern of modern transport networks and trade routes. Consideration of the importance of trade and transportation as geographic factors. Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.
- 411-4. *Urban Geography.* The urban population: environment, development, and distribution. Geographic factors related to the origin, structure, and functions of urban centers. Mr. Harper. Prereq, 100, 101, 210, or permission of the instructor.
- 413-3 to 4. *Geography of the Caribbean Lands.* A regional approach to the study of the lands bordering the Caribbean. Appraisal of the natural-resource base of the various countries. Mr. Cunningham. Prereq, 100.
- 416-4. *Cartography.* Instruction and practice in the basic techniques of map making; consideration and solution of problems involved in the construction of maps; problems in map reproduction. Mr. Dahlberg. Prereq, 100.

- 420-4. *Geography of Africa*. A regional approach to the study of the continent. Patterns of climate, soils, minerals, vegetation, and relative location to be woven together with the agricultural, economic, and industrial features into the regional framework of Africa. Mr. Hopkins. Prereq, 100.
- 424-4. *Regional Problems in Conservation*. The distribution, use and inter-relationship of the resources in the various resource management regions of the United States, the conservation techniques applied to them, and the problems of public policy in their effective management. Mr. Cunningham. Prereq, 100, 324, or equivalent.
- 430-4. *Physiographic Provinces of North America*. (Same as Geology 430.) A course designed to give the student an appreciation of the evolution of land forms in the physiographic provinces of North America; to explain the surface features in a landscape; and to interpret the human drama related thereto. Mr. Harris. Prereq, 100 and 101, or Geol. 220 or 331.
- 440-2 to 4. *Readings in Geography*. Supervised readings in selected subjects. Hours and credit to be arranged. Prereq, 100, 101, 210, and advanced standing.
- 450-3 to 15. *Regional Field Courses*. Courses designed to give students firsthand knowledge of various areas of the world. Prior to departure from campus intensive supervised study and/or readings made of region to be visited. Written report of trip due within six weeks after completion of field study. Prereq, 100, 101, 210.
- 460-2. *Current Geographical Journals*. Course designed to acquaint students with the leading journals in the field of geography. Each student enrolled in course to report content of certain recent or current issues. Mr. Cunningham, Mr. Harper. Prereq, minimum of 14 hours of geography.
- 500-4. *Field Methods*. Field experience in the techniques of observation, mapping, interview, and analysis as applied in geography. One day a week spent in the field near Carbondale. Mr. Harper.
- 501-4. *Library Research and Thesis Writing*. Introduction to and appraisal of library sources and bibliographical aids. Thesis organization, form, and investigational procedures. Individual projects and reports. Mr. Beimfohr.
- 511-4. *Philosophy of Geography*. A study of the nature of geography. Current trends in the field, present-day geographers, and schools of thought. Geography's place among all disciplines. Mr. Price.
- 520-2 to 20. *Seminar*. Systematic and regional studies.
- 530-2 to 10. *Readings in Geography*. Supervised readings in selected subjects. Hours and credits to be arranged.
- 599-3 to 9. *Thesis*.

GEOLOGY

At the present time a minor may be counted in geology toward any of these three degrees: Master of Arts, Master of Science, Master of Science in Education.

- 401-4. *Advanced General Geology*. A course dealing with certain broader problems of geology; earthquakes, volcanism, submarine canyons, coral islands, mountain building. Laboratory. Mr. Harris. Prereq, 220, 302.
- 405-4. *Geologic Map and Air Photos Interpretation*. Interpretation and use of air photos in geologic mapping; interpretation and construction of geologic maps, such as areal, structure, isopach, paleogeologic. Laboratory. Mr. Harris. Prereq, 212, 302.
- 410-4. *Stratigraphy and Sedimentation*. The characteristic features of sedimentary rocks and their processes of origin; the classification of stratigraphic units, methods of correlation, and paleogeologic reconstructions. Laboratory. Prereq, 220, 221. Mr. Harris.
- 411-4. *Stratigraphy*.
- 415-4. *Optical Mineralogy*. Study of the optical properties of minerals and the use of the petrographic microscope for identification by the immersion method and by their section. Laboratory. Mr. Amos. Prereq, 310; Physics 108.
- 425 (325)-4. *Paleontology I: Systematic Invertebrate*. Major invertebrate phyla (Protozoa, Porifera, Coelenterata, Echinoderma, Bryozoa, Brachiopoda); their morphology, classification, and stratigraphic succession. Laboratory. Prereq, 220, 221; Zool. 100.
- 426 (326)-4. *Paleontology II: Systematic Invertebrate*. A continuation of Paleontology I, Mollusca and Arthropoda. Laboratory. Prereq, 425.
- 427 (327)-3 to 5. *Paleontology III: Field and Laboratory Techniques*. Methods of field collecting, preparation, and preservation of specimens, techniques of identification and description, and survey of available literature. An original report based on independent field and laboratory work required of each student. Laboratory. Prereq, 220, 221.
- 430-4. *Physiographic Provinces of North America*. (Same as Geography 430.) A course designed to give the student an intelligent appreciation of the evolution of land forms in the physiographic provinces of North America; to explain the surface features in a landscape; and to interpret the human drama related thereto. Mr. Harris. Prereq, 220 or 331; or Geog. 101.
- 431 (331)-4. *Geomorphology*. A course concerning the origin of our land forms, intended to show relationship of land forms to interplay of diastrophism; volcanism; rock structure and composition; and processes of weathering and erosion. Prereq, 220 or Geog. 101.
- 435-4. *Coal and Oil*. A brief survey of our two most important fuels. A study of methods of exploration and extraction; nature, manner of occurrence; and geologic and geographic distribution. Mr. Harris. Prereq, 220 or Geog. 100.
- 440-1 to 4. *Independent Study*. Prereq, 220, 221, 222, advanced standing.
- 540-1 to 9. *Advanced Studies*.
- 541-1 to 9. *Research*.

GOVERNMENT

Graduate courses in government may be taken as a major or minor leading to the degree Master of Arts; or as part of a social science major toward

the degree Master of Science in Education. Graduate students are required to take 499.

- 420-3. *Pressure Groups and Politics*. An analysis of interest groups and their techniques of political propaganda. Prereq, 101 or 231.
- 421-1 to 5. *Readings in Government*. Consent of instructor required. Undergraduate students only.
- 435-3. *Government and Business*. An historical study, with contemporary emphasis upon relations between government and economic institutions. Prereq, 395, or consent of instructor.
- 436-3. *Government and Labor*. (Same as Economics 436.) A study of labor relations and legislation considering both constitutional and economic aspects. Prereq, Econ. 205 and Govt. 101 or 231 or 300; or consent of instructor.
- 440-3. *Public Personnel Management*. A survey of the methods and functions of modern public personnel administration. Prereq, 360.
- 441-4. *Philosophy of Politics*. Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relations of economics and social studies to political theory. Prereq, Philosophy 140, or 340, or consent of the instructor.
- 466-3. *State Government and Administration*. A study of the leading problems of government and administration of American states. Prereq, 232.
- 467-3. *Municipal Government and Administration*. A study of the development and functioning of city government in the United States. Prereq, 232.
- 472-4. *International Government*. A study of the organization and development of international governmental and administrative systems, with emphasis on the United Nations. Prereq, 370.
- 475-4. *International Law*. A study of the rules and practices governing the nations in their relations in peace and war. Prereq, 370.
- 480-4. *The Pacific and the Far East*. A study of the political and strategic problems in this area. Prereq, 370 or Hist. 370.
- 487-4. *American Political Ideas*. An historical study of the political ideas of leading American statesmen and publicists, and their resulting influence upon our governmental system. Prereq, 305 or 385.
- 488-3. *Recent Political Theory I*. A study of the outstanding Anglo-American liberal political theorists from John Stuart Mill to the present. Prereq, 305 or 390.
- 489-3. *Recent Political Theory II*. A study of the outstanding "scientific" political theorists from Karl Marx to the present. Prereq, 385 or 391.
- 490-3. *Recent Political Theory III*. A study of the outstanding idealistic and nationalistic political theorists from Hegel to the present. Prereq, 385 or 391.
- 497-4. *Administrative Law*. A study of law as it affects public officials in carrying out the rights, duties, and necessary functions of the public office. Prereq, 360 or 395.
- 499-4. *Research Methods*. Practical training in research and writing techniques in the field of government. Bibliography materials, footnotes, use of library.

- 501-515. *Seminars*. Preparation and presentation, for criticism, of assigned research papers. Hours of credit as announced.
501. *Seminar in Contemporary Legislation*. Prereq, 340, or consent of instructor.
- 502-3. *Seminar in Governmental Problems*. A study of current problems in the field of American government. Consent of instructor required.
503. *Seminar in Pressure Groups*. Prereq, 420, or consent of instructor.
505. *Seminar in Political Parties*. Prereq, 380, 420, or consent of instructor.
508. *Seminar in International Relations*. Prereq, 370, 472, or 475, or consent of instructor.
509. *Seminar in International Organization*. Prereq, 472, or consent of instructor.
510. *Seminar in State Government*. Prereq, 466, or consent of instructor.
511. *Seminar in Local Government*. Prereq, 467, or consent of instructor.
512. *Seminar in Public Administration*. Prereq, 360, or consent of instructor.
513. *Seminar in Constitutional Law*. Prereq, 395, or consent of instructor.
515. *Seminar in Comparative Constitutions*. A study of the nature of political constitutions, their foundations, amendment, interpretation, development and overthrow; both contemporary and historical constitutions used as illustrations. A term paper required, involving conferences with the instructor and presentation to the class. Prereq, 390, 391, or 392, or consent of instructor.
- 521-1 to 6. *Readings in Government*. Supervised readings in selected subjects. Prereq, consent of instructor.
- 595-2 to 4. *Individual Research*. Involves the selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental graduate staff. Prereq, 499, or consent of instructor.
- 599-2 to 9. *Thesis*. Prereq, 499, or consent of instructor.

GUIDANCE AND SPECIAL EDUCATION

Graduate majors in the Department of Guidance and Special Education are available in the areas of guidance and counseling, and special education. Desirable background courses for such majors are Adolescent Psychology and 421 or 422. A major in this department leads to the degree Master of Science in Education.

- 400-0. *Orientation Practicum in College Personnel*. The student spends 4-5 hours per week doing routine work under supervision in the Office of Student Affairs.
- 406-4. *Techniques and Interpretation of Hearing Testing*. See Speech 406.
- 410-4. *Problems and Characteristics of the Mentally Retarded*. A study of the objectives, curriculum, methods and materials of instruction for slow learners. Emphasis upon the principles of learning as they can be applied to this group. Observations. Prereq, 305 or Psych. 301 or 303.
- 411-4. *Education of the Partially Sighted and Blind*. A study of the objectives, curriculum methods and techniques of instruction of classes

- for the partially sighted. Special emphasis on sight conservation in the regular classroom, special equipment, and observation of sight-saving classes. Prereq, 305, Psych. 301 or 303.
- 412-4. *Education of Gifted Children.*
- 414-4. *The Exceptional Child.* A study of the physical, mental, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Individual case studies used; observations and field trips. Prereq, 305, Psych. 301 or 303.
- 415-4. *Education of the Deaf and Hard of Hearing.* Methods of teaching reading and developing language sense in the deaf and hard of hearing. Tactile, visual, and kinesthetic experiences; hearing aids and other special equipment presented in terms of their educational application. Observations. Prereq, 305, Psych. 301 or 303, Speech 105 and 212, or its equivalent.
- 416-4. *Education of the Orthopedic Children.* A study of the objectives, curriculum, methods and techniques of instruction of classes for orthopedic children. Emphasis given to program organization, special types of equipment, and observation of classes for the orthopedic. Prereq, same as for 410.
- 417-4. *The Atypical Child and Social Agencies.* A survey of social agencies contributing to the welfare and care of exceptional children. Emphasis given to services rendered and to methods of contact, cost. Visitations made to agencies and institutions; specialists invited to appear before the class. Prereq, 305 or Psych. 301 or 303 and Soc. 101.
- 418-4 or 8. *Workshop in Special Education.* Workshop designed to promote better understanding of the psychological and educational problems of atypical children. Specialists used as consultants. Open to seniors and graduate students majoring in education, guidance, or special education. Prereq, 305 or Psych. 301 or 303.
- 419-4. *Principles and Techniques of Teaching Lip Reading.* A study of the objectives and techniques for visual speech reading of the hard of hearing. Emphasis given to foundation exercises and actual practice under direct supervision. Speech reading problems studied. Prereq, 305 or Psych. 301 or 303, Speech 105 and 212, or equivalent.
- 420-4. *Educational Statistics.* A course emphasizing the statistical methods needed by teachers for classroom use, the reading of educational literature, and informal educational research. Includes methods of describing group performance, measures of relationship, normal probability, and introduction to measures of reliability and tests of significance. Prereq, consent of instructor.
- 421-4. *Tests and Measurements in the Secondary School.* A study of various standardized tests with emphasis on the administering, scoring, and interpreting of such tests as are utilized in the high schools. The planning of testing programs for public schools; the preparation of an objective test by the student in the field in which he plans to teach. Prereq, 305 or equivalent.
- 422-4. *Tests and Measurements in the Elementary School.* The uses of ob-

jective measurements for diagnosis, appraisal, guidance of learning, and improvement of teaching. Special emphasis on the selection, administration, interpretation and construction of classroom tests. Prereq, 305 or equivalent.

- 426-4. *Symposium on Procedures in Individual Guidance*. Weekly seminars to acquaint students with techniques in individual guidance; emphasizes diagnostic techniques as used in the case study approach. Each student selects one child to serve as his "subject." Prereq, 305 or Psych. 301 or 303, 421 or 422, at least one course in remedial reading, Soc. 101, H. Educ. 100.
- 428-4. *Speech Correction for the Classroom Teacher*. See Speech 428.
- 440-3 to 4. *Student Personnel Work in the Residence Halls*. A basic laboratory and seminar approach to student personnel work in university residence halls. Fall.
- 441-3 to 4. *Philosophy and Techniques of Student Personnel Work*. A critical study of the student personnel point of view. Consideration of all aspects of student life, with particular attention to developing skills and techniques of working effectively with students individually and in groups. Intensified application of the techniques developed in 440. Prereq, 440 or equivalent. Winter and Spring.
- 442-4. *Basic Principles of Guidance*. A basic introductory course on student personnel services programs. A first course for counselors, advisors, deans, teachers, school administrators, and others interested in guidance. Prereq, 305 or equivalent.
- 475-4. *Implementation of Guidance Principles in the Public Schools*. The study and application of individual and group guidance techniques needed by teachers and administrators in the public schools. Participant to select and adapt those appropriate for his use with group or individual problems of his choosing. Individual conferences with the instructor, weekly progress reports, and a complete case report required of each student. Prereq, consent of instructor. Not open to students who have had 426, 526, or 542.
- 480-4. *Workshop in Counseling the Handicapped*. Primarily for persons employed in institutions for the handicapped or employed as welfare workers. Emphasis on understanding types of disabilities, needs, and rehabilitation of the handicapped. Practical approaches to counseling, maintenance of records, occupational information, and vocational guidance of disabled persons.
- 501-4. *Special Research Problem*. For majors and minors in the areas of guidance or special education. Choosing and conducting research activities. The student to select a topic for research and present it, upon completion, to the staff. Prereq, consent of staff.
- 511-4. *Educational Implication of Learning Theories*.
- 513-4. *Organization, Administration, and Supervision of Special Classes*. Emphasis upon the functions, underlying principles, and cautions to be observed in the organization and administration of special classes. The selection and training of teachers, problems of supervision, special equipment, transportation, co-operating agencies, and legal aspects of the program. Prereq, 305, Psych. 301 or 303.

- 515-4. *Psychological Aspects of Education*. Review of the various theories of learning with special emphasis on the applications of these theories in the classroom. Individual special study concerning a specific application of psychological principles to a classroom situation. Should be taken near completion of master's program. Prereq, consent of instructor.
- 520-4. *Advanced Educational Statistics*. Statistics as a tool for the general education and research worker. Characteristics and applications of the normal probability curve, reliability of statistics, tests of significance, regressions, analysis of variance and special correlation methods. 3 hr. lect. and 2 hr. lab. Prereq, 420.
- 521-4. *Designing of Experiments in Education*. The concepts and techniques needed by the research worker in the field of education for the designing of experiments so that statistical inferences will be valid. Analysis of chi-square, analysis of variance, analysis of co-variance, and an introductory approach to factor analysis.
- 523-4. *Measurement of Interests and Aptitudes of Students*. Practical experience in determining pupils' interests and aptitudes as used by guidance personnel in the school. Emphasis on validity, reliability, appropriateness of norms, and interpretation of each test considered. Prereq, 421 or 422, 442, or consent of instructor.
- 525-4. *School Behavior Problems and Their Prevention*. A study of etiological factors, differential diagnosis, and methods used in the correction of behavior problems. Consideration of intra-community and extra-community facilities available in treatment programs. Includes in-service field work. Prereq, consent of instructor.
- 526-4. *Techniques in Individual Student Guidance*. A course in which student employs psychometric procedures, makes observations, and holds interviews with the student, the parent, the teachers, and others. The student to work with one individual throughout the term. Prereq, same as 426.
- 528-4. *Advanced Guidance of the Individual Student*. A continuation of 426 or 526. Techniques and the methods of treatment which would apply to a particular case. Individual direction and guidance given students by members of the staff. Problems for consideration; educational difficulties, physical disorders, and the ways in which these are related to behavior of school children. Prereq, 426 or 526.
- 536-4. *Techniques in Individual Measurement*. Theory and practice in administering individual intelligence tests, such as the Stanford-Binet. Each student to administer at least 25 tests to pupils of varying ages, and to interpret the results. Prereq, consent of the instructor.
- 540-4. *Administration of Student Personnel Services at the College Level*. Study of administrative leadership as applied to staff, administrators, student government, and the college community. Consideration of student discipline, budgeting, executive planning, records, relationships to academic divisions. Prereq, 440, 441, and 30 hours on master's degree.
- 541-4. *Occupational Information and Guidance*. Designed to acquaint the

school counselor, administrator, or teacher with source materials in occupational information, and their organization and use in the vocational counseling process. Prereq, 442, or consent of instructor.

- 542-4. *The Guidance Worker as a Counselor*. A general introduction to counseling with intensive study of the techniques of observation, rating scales, autobiography and personal documents, daily schedules, the interview, utilization of test results, cumulative and anecdotal records, sociometric devices, and the case method. Special emphasis on the use of these techniques in the counseling of students. Prereq, 442 or consent of the instructor.
- 543-4. *Guidance Through Organized Groups*. A study of methods and materials for the organization and utilization of orientation programs, home rooms, clubs, and activities for guidance purposes. An introduction to group relations. Prereq, 442.
- 544-4. *The Student Living Center*. Study of the various types of student residences and how they affect student life. The physical plant, the organization of students, and the relation of the hall activities to the total campus program, both academic and social. Study of co-operating with food services, health service, business management and university administration. Prereq, 440 or its equivalent, 441.
- 545-4. *Problems in Guidance*. A seminar-laboratory course to discuss current problems in guidance as met by guidance workers in the field. Open to majors of advanced standing only.
- 550a-3 to 8. *Practicum in Student Personnel Work (Counseling)*.
- 550b-3 to 8. *Practicum in Student Personnel Work (Group Activities)*.
- 550c-3 to 8. *Practicum in Student Personnel Work (Housing)*.
- 550d-3 to 8. *Practicum in Student Personnel Work (Student Aids)*.
- 550e-3 to 8. *Practicum in Student Personnel Work (Administration)*.
- 550f-3 to 8. *Practicum in Student Personnel Work (Testing)*.

Practical work experience, under supervision, is provided in each of the above practicum areas. Open to majors in student personnel work who present adequate background and course work. Not more than 8 quarter hours granted in any one area. Prereq, permission of instructor.

- 562-4. *The Schools' Function in Relation to Child and Adolescent Development*. The way in which the curriculum and other school activities are related to, and promote the normal healthy development of children. Prereq, consent of instructor.
- 564-2. *Directing Student Personnel Services*. A seminar for advanced students dealing with the initiation of a guidance program, program planning, public relations, in-service training, integration of guidance services and curriculum, advisory responsibilities to the administration, and methods of appraising personnel services to students. Prereq, permission of instructor.
- 570-2. *Seminar: Vocational Guidance of the Handicapped*. Examination of vocational problems of handicapped. Study of vocations open to handicapped; requisites for success. Advanced majors only.
- 576-4. *Practicum in School Personnel Work*. Laboratory research course for advanced majors. Students to assist with testing programs, keep-

- ing records, counseling students. Research projects to accompany practical experience. Minimum of 12 hours per week "on the job."
- 577-4 to 8. *Practicum in Special Education*. Practical experience in working with atypical children. A minimum of 8 to 12 hours per week in the classroom with atypical children who exemplify this area of specialization. Special research project.
- 580-5 to 9. *Thesis*.
- 585-1 to 3. *Seminar in Rehabilitation Counseling*. (Maximum of 6 hours.) A continuing survey of recent developments and trends in the organizational structure, functions, and team interaction of specialists devoted to rehabilitation of the handicapped. Selected problems of the role of rehabilitation counselor in multiple settings. Prereq, consent of instructor.
- 596-5 to 9. *Independent Investigation*. This is a field study required of each student working for the sixth year professional certificate. The work should be done in the setting of a school system where the student is employed or where full co-operation is extended. The study will involve selecting of the problem, survey of pertinent literature, recording of results, and appropriate interpretations and summarizations.

HEALTH EDUCATION

A student may follow one of two programs leading to a Master of Science in Education degree in health education: (1) he may select a minimum of 24 quarter hours in health education, a minimum of 16 hours in a minor field, and 8 hours, with department approval, from graduate courses in education; (2) he may concentrate his work in health education up to a maximum of 40 quarter hours, and select the remaining eight hours, with department approval, from offerings in the field of education.

- 400-4. *Health Appraisal of School Children*. The role of the teacher in the health appraisal of the school child, including school health examinations, use of health records, and emphasis on training for recognition of health deviations from normal common among school children. Not open to students who have had H. Ed. 450.
- 405-3. *Methods and Materials in Family Life Education*. A methods and materials course designed to prepare the prospective teacher to instruct in various phases of family life education.
- 443-4. *Methods and Materials in Driver Education*. An advanced course in driver education which will include a study of existing courses of study, review of research, course of study planning, visitation and reporting, panel discussions, accident statistics, conducting the secondary school program, testing, and demonstration in the car. Prereq, 302.
- 450-4. *Health Education in the Elementary School*. This course has to do with the responsibilities of schools to instruct their students in basic fundamentals of how to live beautifully. The course will present principles, methods, programs, and materials for the elementary teacher. The integration of health with other subjects, health observation of children, abnormalities, screening tests, and

related materials will be treated. Not open to students who have had H. Ed. 400.

- 460-4. *Methods and Materials in Secondary School Health Education*. Designed to show the prospective teacher the fundamental processes involved in the teaching of health education at the secondary level.
- 461 (361)-4 to 8. *Workshop in Health Education*. Summer course designed for in-service teachers, administrators, advanced students, nurses, social workers, and others interested in public health aspects of school and community living. Individual problems of classroom health treated as units in such fields as speech defects and their detection and correction, communicable disease control, nutrition, social and mental hygiene. Lectures, demonstrations, films, field trips, and individually supervised research in special problems. Prereq, 101 or its equivalent.
- 471-4. *Organization and Administration of School Health*. Appraisal of over-all school organization for health education, including health services and personnel, health and safety instruction, school environment, school health examination, local, state and federal resources for health, health councils, and inter-departmental relationships.
- 490-4 to 8. *Field Work in School and Community Health*. Field training, observation, and participation in current public and school health programs. Utilization of area schools and public health agencies to provide practical experiences for the health education student. Restricted to majors in health education.
- 500-4. *Community Organization for Health Education*. Review of the philosophies of community organization for health; techniques of group work, current research in community organization, and examination of programs of community health agencies.
- 510-4. *Construction of the Curriculum in Health Education*. Review of health instruction programs in elementary and secondary schools, consideration of health needs and interests and their relationship to the curriculum, evaluation of health texts, and evaluation of current research.
- 515-4. *Review of Current Literature in Health Education, Public Health, and Safety Education*. A survey and analysis of the newer publications in the related fields of health education, public health, and safety education.
- 520-4 to 6. *Special Projects in Health Education*. Developed for students who may wish to conduct more detailed research and study on advanced problems in the fields of public health, safety education, and health education.

HISTORY

Graduate courses in history may be taken as a major or minor leading to the degree Master of Arts; or as part of a social science major leading to the degree Master of Science in Education.

- 400-3. *Teachers' Workshop in Current History*. A series of lectures, readings, discussions, and projects designed to aid the teacher in

- understanding and interpreting some of the major problems of present-day society. Mr. Pitkin. 3 hours.
- 401-3. *History of the South to 1860*. An intensive study of the social, economic, political, and cultural development of the "Old South" to the Civil War, to bring out the distinctive culture and problems of the section. Prereq, 201. Mr. Ammon.
- 402-3. *History of the South Since 1860*. The Civil War, political and economic reconstruction, and problems of the "New South." Prereq, 202 or 401. Mr. Ammon.
- 405-3. *Civil War and Reconstruction*. Emphasis upon the clash of national and sectional interests; economic, political and military aspects of the conflict; course and consequences of reconstruction. Prereq, 201, 202. Mr. Ammon.
- 410-2 to 5. *Special Readings in History*. Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand.
- 411, 412, 413-3 hr each. *Intellectual History of the United States*. Study of various types of economic, social, and political thought that have influenced the development of the nation. Prereq, 201, 202. Mr. Briggs.
- 415-3. *The Age of the Renaissance*. The course beginning with the Italian phase of the Renaissance and following its spread to other sections of Europe. Prereq, freshman survey. Mr. Caldwell.
- 416-3. *Protestant Reformation*. A survey of the religious, cultural, and economic forces which brought about the movement for reform. The political effects of the division of Christendom; the economic implications of Protestantism. Prereq, freshman survey. Mr. Caldwell.
- 417-3. *Selected Topics in the History of the British Empire*. A survey of English expansion beyond the seas; emphasis of mercantilism, *laissez faire*, and state capitalism upon pattern of control. Prereq, 324. Mr. Cherry.
- 418-3. *Selected Topics in English Constitutional History*. Study of origin, growth, and continuous modification of the English political and legal institutions from earliest times to the present day. Prereq, 324. Mr. Cherry.
- 419-3. *Selected Topics in Seventeenth Century England*. A comprehensive treatment of the significant social, political, economic, and cultural trends in England during the seventeenth century, with special emphasis upon the forces producing increased parliamentary power. Prereq, 324.
- 420-3. *The French Revolution*. Passing of feudalism in France; development of background of revolutionary movement; revolutionary cycle; fall of the Napoleonic Empire. Prereq, adequate background. Mr. Caldwell.
- 425-3. *American Colonial History*. Founding of American colonies; development of their institutions, through the Revolution. Prereq, 201. Mr. Caldwell.
- 428-4. *Age of Jackson*. A study of the origins, background, and develop-

ment of that phase of American democracy associated with the Jacksonian era. The political, social, and economic history of the years 1824-1844 will be considered in detail. Mr. Ammon. Prereq, History 201.

- 435, 436, 437-3 hrs. each. *Recent United States History, 1865-Present*. A sequence of courses covering the major problems and trends from the Civil War to the present. Courses may be taken separately. Prereq, 201, 202. Mr. Pitkin.
- 439-4. *Financial History of the United States*. Historical origins and development of the financial policies and agencies of the United States Government; emphasis upon legislative history. Political and economic aspects of tariffs, reciprocity agreements, subsidies, war financing, and related topics. Prereq, History 201 and 202. Mr. Pitkin.
- 440-3. *History of American Diplomacy to 1898*. A study of the important treaty relations of the United States, and a general consideration of American foreign policies. Prereq, 201, 202. Mr. Pitkin.
- 441-3. *History of American Diplomacy Since 1898*. A continuation of History 440.
- 442, 443, 444-3 hr each. *History of the West*. Courses for intensive study of the influence of the frontier on the main trends in United States history. One or all courses to be taken. Prereq, 201, 202. Mr. Briggs.
- 449-4. *Europe and her Expansion, 1870-1914*. Age of Imperialism, alliances, and modern navies. Competition for natural resources and world markets. Impact of modern science upon western civilization. Mr. Pitkin. Prereq, Hist. 103 and 212, or proper background.
- 450-5. *The World Since 1914*. Brief review of causes and results of World War I. Emphasis upon the League of Nations, war debts, disarmament, causes of World War II, conflict, and United Nations. Prereq, adequate background. Mr. Pitkin.
- 451-3. *Historiography*. Development of history as a written subject, including works and philosophy of the various outstanding historians in ancient, medieval, and modern periods. Required of all majors in history. Fall.
- 452-3. *Historical Research and Thesis Writing*. The rules of historical research studied and applied to a definite topic. Mr. Briggs. Offered Winter and Spring terms.
- 453-3. *New Viewpoints in American History*. New interpretations and recent developments in the field of American history. Prereq, 201, 202. Mr. Briggs.
- 454-3. *Biography in American History*. Outstanding leaders and their contributions to the history of the United States. Attention to historical writers who specialize in biography. Prereq, a course in United States history. Mr. Briggs.
- 490-3. *The Teaching of History and the Social Sciences in the Secondary Schools*. A comprehensive methods course for prospective teachers; includes history, government, civics, current events, economics, sociology, and geography; curriculum revision; grading of materials;

- classroom methods; preparation of the teacher; professional publications. Attention to the unified social science course. Mr. Pitkin.
- 500-3. *History Seminar*. Research methods applied to the various history fields. Prereq, adequate background. Offered on demand.
- 510-2 to 5. *Readings in History*. Registration by special permission only. Offered on demand.
- 511-3 to 9. *History Thesis*. By special arrangement with the department. (Not to total more than 9 hr).
- 515-5. *Current United States History and Problems*. A combined content and research course dealing with contemporary American affairs. Consists of textbook assignments, outside readings, lectures, and projects for investigation. Prereq, graduate standing and proper background. Mr. Pitkin.
- 516-5. *Studies in Contemporary Europe and Civilization*. A content and research course in European Civilization since 1914, stressing the rise of facism and the democratic crisis of the present time. Prereq, graduate standing and proper background. Mr. Caldwell.
- 517-5. *Constitutional History of the United States and Problems*. A combined content and research course involving origin and development of the American Constitution, from English background, through the convention, to the present. Mr. Briggs.
- 518-5. *Studies in Later Stuart England*. A combination content and research course dealing with some of the leading social, institutional, and cultural problems created by the impact of the rising liberal forces on English life and traditions. Mr. Cherry.
- 519-5. *The Age of Jefferson*. Rise and development of Jeffersonian Democracy, 1790-1824, with emphasis upon social, economic, and political programs of Republicans and Federalists; the clash of mercantile and agrarian interests. Prereq, graduate standing and proper background. Mr. Ammon.
- 590-1 to 6. *Individual Research*. The investigation of a research topic in history under the supervision of a member of the graduate staff in that field. By special arrangement.

HOME ECONOMICS

Graduate courses in home economics may be taken as a major or minor toward the degrees Master of Science and Master of Science in Education.

- 414-4. *Home Economics for Elementary Teachers*. Units of work in nutrition, school lunches, family and social relationships, textiles, and clothing. Offered on demand. Not open to majors in home economics.
- 424-4. *Selection, Use, and Care of Appliances*. Materials used in equipment, methods of construction, principles of operation of appliances for cooking, refrigeration, laundering, cleaning; selection, operation, and care of appliances to obtain maximum satisfaction in use. Offered on demand.
- 473-4. *Advanced Tailoring*. A course in which the student will tailor one garment for herself. Lectures and demonstrations supplemented by up-to-date illustrative materials. Time saving methods, high quality construction details, and professional finishes stressed.

- 474-4. *Advanced Textiles*. The physical and chemical analysis of textiles. Problems dealing with standards, labeling, and legislation. Current literature of developments within the field. Offered on demand.
- 500-4. *Research Methods*. Survey of methods employed in research in home economics education with special study of one according to interest and needs of student. Development of prospectus. Prereq, Math. 120, or consent of instructor.
- 505-4. *Home Economics in Secondary Schools*. Consideration of the curriculum for homemaking education in the secondary school. A critical survey of resources. The place of homemaking education in the school and community.
- 506-4. *Evaluative Procedures in Home Economics*. Principles and procedures underlying appraisal and evaluation. Development and critical consideration of instruments for appraising pupil growth and the program of instruction. Emphasis placed on values.
- 510-4. *Supervision of Home Economics*. Considers the nature, function, and techniques of supervision at all levels. Emphasis given to supervision of student teachers. Experience in the field will be provided for qualified teachers.
- 515-4. *Seminar in Home Economics Education*. Current trends, problems, needs in the field. Attention given to problems and needs of students.
- 516-4. *Advanced Methods of Teaching Home Economics*. Recent trends in methods based on research and experimental programs; furthering good relations in homemaking classes as means of clarifying and accomplishing goals; teacher's role; techniques useful in furthering good relations within group and in meeting individual needs. Emphasis given to social significance of these procedures. Spring.
- 517-4. *Methods and Materials for Adult Programs in Home Economics*. Philosophy of adult education; unit planning, methods, techniques, and resources useful in adult homemaking programs.
- 540-4. *Trends in Consumer Problems*. Social, legal, and economic problems that pertain to the consumer. Consumer education in the public school program; selection of individual problems for investigation. Prereq, 341 or equivalent.
- 550-4. *Advanced Home Management*. Readings, observations, projects, and discussions on selected problems with emphasis on time, money, energy, and family relations. Prereq, 331, 332, or equivalent.
- 562-4. *The School's Function in Relation to Child Development*. The way in which the curriculum and other school activities are related to and promote the normal healthy development of children. Prereq, consent of instructor.
- 566-4. *Seminar in Home and Family Life*. A study of factors that promote satisfactions within the immediate family; planning and preparing teaching units and source materials in this field.
- 570-4. *Clothing Seminar*. Discussion and application of new clothing techniques. Construction of two problems to meet student needs. Prereq, 360 or equivalent.
- 580-4. *Recent Development in Nutrition*. Critical study of recent scientific literature in nutrition. Prereq, 320 or equivalent.

581-4. *Recent Trends in Foods*. An evaluation of recent literature on food preparation principles and the commercial development of prepared foods for home use. Prereq, 335. Offered on demand.

599-5 to 9. *Thesis*.

INDUSTRIAL EDUCATION

Graduate students may elect industrial education as a major or minor for the degree Master of Science in Education.

400-4. *Production Illustration*.

430-2 to 6. *Special Problems in the Arts and Industries*. An opportunity for students to obtain special instruction in the solution of problems of special interest in specific subject-matter fields.

480-4. *Problems of Elementary Industrial Education*. Problems involved in teaching and supervising industrial education at the elementary school level.

490-4. *Principles of Industrial Teaching*. Activities of the industrial education teacher in promotion of interest and motivation of learning in industrial subjects. Emphasis on planning and methods of presentation.

491-4. *Principles of Trade Teaching*. A continuation of 490, with emphasis on methods of teaching trade subjects.

492-4. *School Shop Planning*. Principles and practices underlying modern school shop planning. Actual school shop plans required.

494-3. *Organization and Administration of Industrial Education*. Principles and policies governing the administration of industrial education programs in elementary, junior, senior high schools; relation of federal and state supervision of industrial education to local administration.

495-3. *Occupational Analysis*. Analysis of automotive, electrical, metal working, woodworking, and building industries; study of industrial practices and principles.

496-4. *Selection and Organization of Subject Matter*. Selection and arrangement of teaching content, preparation of assignment, operation, information and job sheets; preparation of tests.

500-2 to 4. *Special Investigations in Industrial Education*. For students who wish to make a thorough study or investigation of a specific problem in industrial education.

504-4. *History and Philosophy of Industrial Education*. Leaders, organizations, and movements in development and progress of industrial education.

506-4. *Problems of Co-ordinator*. Problems and procedures involved in setting up and operating co-operative part-time and evening school programs.

508-4. *Teaching Aids in Industrial Education*. Selection, development, and use of industrial illustrations and instructional aids and devices.

580-3 to 9. *Seminar in Industrial Education*.

590-3 to 6. *Research in Industrial Education*.

599-1 to 9. *Thesis*.

JOURNALISM

Graduate work in journalism leading to a degree of Master of Arts or Master of Science is offered in the Department of Journalism. Approximately one-half of the graduate work should be in professional journalism courses, with the remainder in courses in the liberal arts.

- 414-4. *Newspaper and Periodical Design and Typography*. Principles underlying contemporary printing developments. Influences affecting the design and typography of printed media with analysis of major trends in format, makeup, layout and typography.
- 421 (321)-4. *School Publications*. Designed for prospective journalism teacher or high school publications director. Deals with practical production problems of newspapers and yearbooks.
- 422 (322)-3. *Teaching High School Journalism*. Teaching methods of journalism in secondary schools; organization and course of study; bibliography; use of journalism courses for school publication production.
- 432 (332)-3. *Communication Agencies and Public Opinion*. Press, radio, television, and motion pictures and their role in the opinion process.
- 433 (333)-3. *Measurement of Public Opinion*. The sampling survey as a research tool; survey methodologies.
- 434 (334)-3. *The Newspaper and Special Interest Groups*. Analysis of the role of communication agencies in propaganda; special interest groups in newspaper policy; case study in propaganda operations.
- 495 (395)-3. *Book Reviewing*. Theory and practice in reviewing modern books; study of newspapers and magazines devoted entirely or in part of this type of journalism.
- 501-4. *Literature of Journalism*. Critical reading of selected books relating directly and indirectly to journalism; lectures; reviews; discussions.
- 530-4. *Seminar in Newspaper Editorial Policies*. Observation of the comment function as performed by the daily newspaper as related to current issues; role of the editorial writer, syndicated columnist, cartoonist.
- 532-4. *Seminar in Public Opinion and Propaganda*. Study of the developing literature in this field of specialization.
- 533-1 to 4. *Research Problems in Journalism*. Individual work on selected problems for research.
- 599-3 to 9. *Thesis*.

MATHEMATICS

Graduate work in mathematics may be taken as a major or minor leading to the degrees, Master of Arts, Master of Science, or Master of Science in Education.

- 407-4. *Statistical Analysis I*. An introduction to the statistical methods used in analyzing experimental data. Estimation of parameters and testing of hypotheses. Regression and correlation, analysis of variance and covariance, analysis of enumeration data. Not counted for graduate credit in mathematics. Prereq, 120 or consent of instructor.

- 408-3. *Boundary Value Problems*. A course dealing with the solutions of partial differential equations with boundary values by the use of orthogonal functions such as Fourier Series, Bessel functions, etc. Prereq, 306.
- 415-4. *Non-Euclidean Geometry*. An introduction to hyperbolic and elliptic plane geometry and trigonometry. Emphasis given to the nature and significance of geometry and the historical background of non-Euclidean geometry.
- 425-3. *Theory of Numbers*. Topics in elementary number theory, including properties of integers and prime numbers, divisibility, Diophantine equations, and congruence of numbers.
- 430-4. *Synthetic Projective Geometry of the Plane*. Introduction to the fundamental concepts of projective geometry, including study of conics and polar systems of conics. Prereq, 113.
- 431-4. *Analytic Projective Geometry of the Plane*. Introduction to homogeneous co-ordinates; cross-ratio, harmonic sets, duality, projectives, involutions, and conics, using algebraic methods. Prereq, 20 hrs. college math., including 113.
- 440-3. *Modern Algebra for Teachers*. An introduction to algebra as a logical system, including groups, rings, and fields. Prereq, consent of instructor.
- 441-3. *Determinants and Matrices*. Polynomial theory, determinants, matrices, and solution of equations. Prereq, consent of instructor.
- 442-3. *Survey of Geometry*. A survey of geometry, including projective geometry, topology, etc. Prereq, consent of instructor.
- 452-3, 453-3, 454-3. *Advanced Calculus*. Prereq, 253.
- 460-4. *Modern Geometry*. Advanced topics in Euclidean geometry by the synthetic method. Topics including the nine-point circle, Simson line, theorems of Ceva and Menelaus, coaxal circles, harmonic section, poles and polars, similitude, and inversion. Prereq, 20 hrs. college math.
- 475 (375)-3. *Numerical Methods*. An introduction to approximation methods including finite differences and interpolation; numerical differentiation and integration; curve fitting; numerical solution of algebraic, transcendental, and differential equations. Prereq, 305, or 253 and consent of instructor.
- 480-3, 481-3, 482-3. *Probability and Statistics*. An introduction to probability theory and the mathematical methods used in obtaining procedures for various problems of statistical inference. Topics include the algebra of probabilities, discrete and continuous distributions, limit theorems, sampling distributions, principles of statistical estimation and testing hypotheses. Prereq, 253.
- 505-2, 506-2, 507-2. *Topics in Mathematics*. Courses planned to show the relationship among the various parts of mathematics already studied by the student; to provide an introduction to selected topics in mathematics, and to present a clarified picture of the field of mathematics.
- 510-4. *Foundations of Mathematics*. A critical survey of the logical basis of mathematical systems. Deductive processes, mathematical proof

- theory, axiomatics, nature of model systems, principles of theory construction, views concerning the nature of mathematics. Prereq, 253 and consent of instructor.
- 520-1 to 4. *Modern Algebra I*. A course intended to display some of the richness of algebra when other possible mathematical systems are considered in addition to the traditional one based upon ordinary systems of algebra. Uniqueness of factorization, rational numbers and fields, polynomials, complex numbers, and theory of permutation groups.
- 521-1 to 4. *Modern Algebra II*. A continuation of 520. Additional group theory, vector spaces, matrices, algebraic number fields.
- 530-5. *Point Sets and Topology*. General properties of sets. Topology of plane sets. Closed sets and open sets in metric spaces, homeomorphism and continuous mappings, separation theorems, connectivity properties.
- 535-4. *Algebraic Plane Curves*. A study of algebraic plane curves of order higher than two, including an introduction to the history and methods of algebraic geometry. Lect, assigned readings, and exercises. Prereq, 253.
- 543-3. *Non-Euclidean Geometry for Teachers*. A course designed to show the similarities and differences of Euclidean and non-Euclidean geometries. Prereq, consent of instructor.
- 544-3. *Fundamentals of Analysis*. A careful study of the basic concepts of the calculus. Prereq, consent of instructor.
- 550-1 to 5. *Seminar in the Teaching of Mathematics*. Supervised study and preparation of reports on assigned topics in the field. Reports presented for class discussion. Prereq, consent of instructor.
- 555-4. *Introduction to Complex Variables*. Prereq, 453.
- 570-4. *Special Topics for Physical Science Students*. Vector analysis, complex variable, and other special topics needed by students in the physical sciences. Prereq, 305.
- 590-1 to 5. *Seminar*. Prereq, consent of instructor.
- 595-2 to 10. *Special Projects*. Individual projects, including a written report.
- 599-5 to 9. *Thesis in Mathematics*.

MICROBIOLOGY

Graduate courses in microbiology may be taken as a major or minor leading to the degrees Master of Science and Master of Arts, or as part of a major in biological science for the degrees, Master of Arts, Master of Science, and Master of Science in Education.

- 401-2 to 6. *Seminar*. Prereq, 301. Every quarter.
- 402-5. *Genetics* (same as Zoology 401). A general course involving the principles of evolution and genetics, with experimental work in breeding strains, etc. Prereq, approval of instructor.
- 406-5. *Protozoology* (same as Zoology 406). A general consideration of taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods of culturing and preparing microscopical slides. Prereq, approval of instructor.

- 407-4. *Introduction to Statistical Inference* (same as Math 407). A basic introduction to the simpler problems of statistical inference, to prepare students for courses in an applied field. Descriptive statistics; elementary probability; binomial, poisson, normal distributions; confidence limits of parameters; significance tests. Prereq, Math. 113.
- 422-5. *Microbiology of Foods*. Study of microorganisms and relation to food preparation and preservation. 3 hrs. lect; 4 hrs. lab. Prereq, 301. Fall.
- 423-5. *Industrial Fermentation*. Study of microorganisms as applied to industrial processes. 3 hrs. lect; 4 hrs. lab. Prereq, 301 and Organic Chemistry. Spring.
- 424-5. *Soil Bacteriology*. 3 hrs. lect; 4 hrs. lab. Prereq, 301. Winter.
- 425-3. *Biochemistry and Physiology of Microorganisms*. 3 hrs. lect. Prereq, 301 and Organic Chemistry. Fall.
- 426-2. *Biochemistry and Physiology of Microorganisms*. 4 hrs. lab. Fall.
- 441-3. *Virology*. 3 hrs. lect. Prereq, 301.
- 442-2. *Laboratory Studies in Virology*. 2 hrs. lab. Prereq, 301.
- 451-5. *Immunology*.
- 500-2 to 6. *Seminar*. Prereq, 301. Every quarter.
- 501-2. *Genetics of Microorganisms*. 1 hr. lect; 2 hr. lab. Mr. Lindegren.
- 503-2. *Cytology of Microorganisms*. 1 hr. lect; 2 hr. lab. Mr. Lindegren.
- 504-5. *Methods of Microbiological Research*. 3 hr. lect; 4 hr. lab. Mr. Ogur. Spring.
- 506-2. *Bibliographical Methods in Microbiology*. 1 hr. lect; 2 hr. lab. Mr. Ogur. Winter.
- 511, 512, 513. *Research*. Hours and credit to be arranged.
- 525-3. *Biochemistry and Physiology of Microorganisms*. A continuation of 425. 3 hrs. lect. Mr. Ogur. Winter.
- 526-2. *Biochemistry and Physiology of Microorganisms*. A continuation of 426. 4 hr. lab. Mr. Ogur. Winter.
- 599-3 to 9. *Thesis*.

MUSIC

Graduate courses in music may be taken leading to the degrees Master of Science in Education and Master of Music.

- 400-3 to 9. *Research in Music Education*. History and philosophy of music education; psychology of music education.
- 410-3 to 9. *Private Strings*. Study of standard solo repertoire on an advanced level.
- 420-3 to 9. *Private Woodwinds*. Study of standard solo repertoire on an advanced level.
- 430A-3 to 9. *Music History*. The history of music; special attention to periods, philosophies, and styles of music of all periods. A sequence course offered for 3 hours each quarter.
- 430B-3 to 9. *Music Literature*. A study of the music of Antiquity, Medieval and Renaissance music; representative examples from the Baroque, Classical, Romantic, and Modern eras. A sequence course offered for 3 hours each quarter.

- 430C-3 to 9. *Music Theory*. Introductory analytic techniques. An intensive study of concepts of tonal organization in the various periods of music history. A sequence course offered for 3 hours each quarter.
- 440-3 to 9. *Private Piano*. Study of standard solo repertoire on an advanced level.
- 450-3 to 9. *Private Brass*. Study of standard solo repertoire on an advanced level.
- 460-3 to 9. *Private Voice*. Study of standard solo repertoire on an advanced level.
- 470-3 to 9. *Private Organ*. Study of standard solo repertoire on an advanced level.
- 500-3 to 9. *Seminar in Music Education*. Survey of methods and publications used in public school music; trends and needs in the profession; a project in some phase of music education related to the interests and qualifications of the student.
- 530A-3 to 9. *Music History*. Advanced study in the field in special periods and ethnic music. Subject matter and periods to be arranged with instructor. Special readings.
- 530B-3 to 9. *Music Literature*. Advanced study in the field in special periods and ethnic literature. Subject matter and periods to be arranged with instructor. Special readings.
- 530C-3 to 9. *Music Theory*. Advanced analytic techniques. Tonal organization in the Romantic and Modern era. Advanced composition.
- 540-3 to 9. *Private Piano*. Continued repertoire and pedagogical study.
- 599-3 to 9. *Thesis*.

PHILOSOPHY

Graduate courses in philosophy may be taken as a major or a minor toward the degree Master of Arts and as a minor toward the degree Master of Science in Education.

- 406-4. *Philosophy of Biology*. Leading concepts of biological sciences: species, evolution, life, organism and part, etc. Abstract ideas of biology are related, wherever possible, to specific experiments recorded in scientific literature. Prereq, 300 or 320, and three laboratory or field courses in the biological sciences or consent of the instructor.
- 420-4. *Advanced Logic*. A careful study of symbolic and discursive systems of logic: Aristotle, Spinoza, Boole, Whitehead, and Johnson. Prereq, 320, and consent of the instructor.
- 441-4. *Philosophy of Politics*. Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relations of economics and social studies to political theory. Prereq, 140 or 340 or consent of the instructor.
- 443-4. *Philosophy of History*. Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prereq, consent of the instructor.
- 460-4. *Advanced Philosophy of Art*. The definition of art, its relations to science, culture, and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed. Prereq,

160 or 360, and six courses in music, painting, sculpture, literature, or drama.

- 490-2 to 12. *Special Problems*. Hours and credits to be arranged. Courses for qualified seniors and graduates who need to pursue certain topics further than regularly-titled courses permit. Special topics announced from time to time. Students are invited to suggest topics for individual study and papers or for group study. Consent of instructor in all cases required.
- 590-2 to 12. *General Graduate Seminar*. Courses designed for students having special interests in the history of philosophy and the original systematic development of philosophic ideas. Subjects, meetings, and procedures to be arranged at the first meeting of each course. Prereq, consent of instructor. Hours to be arranged.
- 591-1 to 5. *Readings in Philosophy*. Supervised readings for qualified students. Consent of instructor required.
- 599-2 to 9. *Thesis*.

PHYSICAL EDUCATION

Graduate courses in physical education may be taken as a major or minor toward the degree Master of Science in Education. Courses required of all majors are: 400, 500, 501, 502, 503, 504.

- 400-4. *Evaluation in Physical Education*. Historical background of measurement in physical education; selection and evaluation of contemporary testing devices; structure and use of tests; administering the testing program; and interpretation and application of results. Fulfills the tests and measurements course requirement for the degree Master of Science in Education.
- 402-3. *Organization and Administration of Intramural and Extramural Activities*. Planning intramural programs of sports; planning and co-ordinating extramural activities commonly associated with physical education.
- 403-4. *The Adaptation of Physical and Recreational Activities to the Handicapped Individual*. Recognition of postural deviations; devising and planning programs for the physical atypical.
- 404-4. *The Teaching of Sports*. Teaching methods, officiating, organization, safety precautions, and selecting equipment for sports.
- 405-4. *Current Theories and Practice in the Teaching of Dance*. History and evolution of dance; place of dance in education and recreation.
- 406-4. *Principles of Physical Education*. The place of physical education in the school program, and the principles underlying the program. (Required of all students not presenting the undergraduate courses, 354 or 340.)
- 420-3. *Physiological Effects of Motor Activity*. A study of the general physiological effect of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system. Prereq, Physiol. 209 or equivalent.
- 500-4. *Techniques of Research*. Critical analysis of research literature; study of research methods and planning research studies. (This

course to fulfill the Research Techniques course requirement for the degree, M.S. in Education.) Prereq, 400 and 502.

- 501-4. *Curriculum in Physical Education*. The aims, objectives, and goals of physical education and recreation; principles and procedures for curriculum construction; and criteria for selecting activities and judging outcomes.
- 502-4. *Foundations of Motor Skills*. Application of physiological, kinesiological, and mechanical principles to intelligent control of large-muscle motor activities. Recommended prereq, a course in kinesiology.
- 503-4. *Seminar*. A critical analysis and discussion of pertinent controversial issues in the profession of physical education. Recommended prereq, 406.
- 504-4. *Problems in Physical Education*. The development and carrying out of individual projects or problems. Recommended prereq, 500.
- 505-4. *Organization for Community Recreation*. The development and administration of a recreation program. A study of community recreation including developing facilities and co-ordinating community agencies.
- 506-4. *School Camping and Outdoor Education*. A consideration of current practices in school camps; the training of leaders for school camps and the place of outdoor education in the school program.
- 508-3. *Administration of Interschool Athletics*. Existing problems in interschool athletics, with particular attention to secondary school athletic programs.
- 509-4. *Supervision of Physical Education*.
- 525-1 to 6. *Readings in Physical Education*. Supervised reading in selected subjects. Prereq, consent of the instructor and chairman of the department.
- 597, 598, 599-6 to 9. *Thesis*.

PHYSICS

Graduate courses in physics may be taken as a major or minor leading to the degrees, Master of Arts, and Master of Science, and as part of a physical science major toward the degrees, Master of Arts, Master of Science, and Master of Science in Education.

- 405-5. *Electronics*. Alternating current theory, including circuit analysis by the use of complex numbers; a study of various types of electronic tubes and electronic devices, and their use in circuits which are frequently encountered in experimental physics, including power supplies, amplifiers, oscillators, electronic meters, electronic relays and scalars. Prereq, 305, 306.
- 410-5. *Physical Optics*. A theoretical and experimental study of light as electromagnetic energy; its production, detection, and measurement. Prereq, Math. 253 and three advanced physics courses.
- 414-5. *Recent Developments*. Emphasis is placed on developments in the field of nuclear physics. Prereq, 314.
- 420-2 to 5. *Special Projects I*. Same general character as 520, below, but

- adapted to advanced undergraduate students. Prereq, Physics 301, 305, 306.
- 421-2 to 5. *Special Projects II*. A continuation of 420. Prereq, 420.
- 425-5. *Electrical Phenomena in Gases*. Excitation and ionization of gas atoms; diffusion of ions; space charge; glow and arc discharges, Prereq, 305, 306.
- 430-2. *Physical Literature*. A study of source materials in the field of physics. Also library search on special subjects. Prereq, integral calculus, three advanced physics courses, and one year of German.
- 501-5. *Methods of Theoretical Physics I*. Prereq, 301, 305, 306; Math. 305, 306.
- 502-5. *Methods of Theoretical Physics II*. Prereq, 501.
- 503-5. *Methods of Theoretical Physics III*. Prereq, 502.
- 507-5. *Advanced Electrical Theory I*. Advanced study of the theory of electrostatics, dielectrics, conductors, non-ohmic circuits elements, chemical, thermal, and photoelectric effects, and conduction in gases. The vector notation introduced at the beginning and used throughout. Prereq, 305, 306; Math. 305, 306.
- 508-5. *Advanced Electrical Theory II*. Advanced study of electromagnetic effects of steady and changing currents; L, R, and C circuits; radiation through Maxwell's equations for a plane electromagnetic wave. Vector notation used throughout. Prereq, 507.
- 520-2 to 5. *Special Projects*. Each student assigned a definite investigative topic requiring considerable resourcefulness and initiative. Prereq, 501 (or concurrently).
- 521-2 to 5. *Advanced Research*. A continuation of 520. Prereq, 520.
- 590-1 to 9. *Research in Physics (Thesis)*. 1-5 hr. each term. The total in this group not to exceed 9 hr. Prereq, 501 (or concurrently).

PHYSIOLOGY

Graduate courses in physiology may be taken as part of a major in biological science toward the degrees, Master of Arts, Master of Science, and Master of Science in Education, and as a minor for the degrees, Master of Arts and Master of Science.

The graduate prerequisites include the equivalent of an undergraduate major in biological sciences, plus inorganic, analytic, and organic chemistry, and a minimum of one full year each of physics and mathematics.

- 401-2 to 6. *Seminar*. Open to graduates and undergraduates with adequate training in physiology, physics, and chemistry.
- 410-5, 411-5, 412-5. *Advanced Anatomy*. A course in human dissection designed for majors in physiology and other biological sciences. Open to graduates and undergraduates. 2 hr. lect; 6 hr. lab. Each of the three courses may be elected independently. Open by permission of the instructor.
- 414-4. *Physiology of Speech*. The vocal mechanism and the ear. 3 hr. lect; 2 hr. lab.
- 415-4. *Experimental Animal Surgery I*. The importance of animal research, preparation of living animals for operation, principles and methods of anesthesia, technics and instruments, care of animal quarters,

- selected surgical exercises suitable to illustrate basic physiologic principles. 2 hr. lect; 4 hr. lab. Prereq, 315, 316, 317, or equivalents.
- 416-4. *Experimental Animal Surgery II*. Continuation of exercises begun in 415.
- 420-3. *Physiology of Exercise*. For majors in biologic sciences and in physical education. Prereq, 209 or its equivalent.
- 421-1 to 6. *Readings in Current Physiological Literature*. Supervised readings in selected topics. Hours and credit to be arranged. Prereq, advanced standing.
- 430-4, 431-4, 432-4. *General (Cellular) Physiology*. The nature and mechanism of the living cell. Chemical and physical aspects of vital activity. Prereq, 209 plus other basic biological sciences; chemistry; physics. 2 hr. lect; 4 hr. lab. Fall, Winter, Spring.
- 433-4. *Comparative Physiology*. Fundamental physiological processes and the manner in which they vary in various groups of animals. Laboratory exercises demonstrate the physiologic adaptations made by selected groups of animals. 3 hrs. lect; 2 hr. lab. Prereq, 209 or equivalent. Spring.
- 450-4 to 16. *Special Problems in Advanced Physiology*. Selected problems in various aspects of physiology. Review of the latest literature.
- 455-2. *Physiological Problems in Rehabilitation*. Designed specifically for the Rehabilitation Counseling Program and involving an introduction to the physiological problems associated with the handicapped. Prereq, consent of instructor. 2 hr. lect.
- 500-1 to 6. *Advanced Seminar*. One meeting per week. 1 credit per term. Formal presentation of research and/or current literature in physiology. Required of all majors each quarter in residence.
- 520A-4, 520B-4, 520C-4. *Physiological Technics*. 2 lectures and two 2-hour laboratories per week. 1. Analysis of protoplasmic components of tissue extracts under a variety of physiological conditions using chemical procedures. 2. Gas analysis and metabolic methods in physiology. 3. Instrumentation for the recording of the physiologic activity of living tissues and organs. Use of channel recorders. Prereq, undergraduate major in any of the biological or physical sciences. Offered as three consecutive courses, Fall, Winter, Spring.
- 530A-4, 530B-4. *Advanced Cellular Physiology*. 2 lectures and two 2-hour laboratories per week. A detailed consideration given to basic physiological processes such as permeability, active transport, metabolic cycles, energy transformations, and bioelectric potentials. Selected projects undertaken by the students in the laboratory. Prereq, 430 or equivalent. Offered as two consecutive courses, Fall and Winter.
- 540A-4, 540B-4. *Advanced Comparative Physiology*. 2 lectures and two 2-hour laboratories per week. A comparative study of the physiological systems in animals. Subjects such as nitrogen metabolism, carbohydrate metabolism, and water balance of organisms will be given. Prereq, 430 or 433 (or equivalents) and organic chemistry. Offered as two consecutive courses, Winter and Spring.

- 550-3. *Theory and Use of Isotopes in Physiology*. 2 lectures and one 2-hour laboratory per week. Theory and specific applications of isotopes in physiology emphasized, and opportunity given to learn how to handle radioactive materials in the laboratory. Prereq, 430 (or equivalent), general physics, biochemistry (or equivalent). Spring.
- 590-5 to 20. *Methods and Problems in Research*. Selected research problems for graduate students in various aspects of physiology. Open by permission of the instructor. 4 to 6 hr. each. Students electing this course specifically for their master's thesis not to count more than 9 quarter hr. credit.

PSYCHOLOGY

The department of psychology offers a TWO YEAR program of study and training. The first year of the program provides training in the basic areas of psychology, including scientific methodology and experimental techniques, personality theory and dynamics, learning theory, historical trends, and introduction to clinical techniques. The second year includes training in advanced psychological techniques, with supervised experience in the use of techniques in a practicum setting, plus advanced training including seminars in the area of major interest.

The graduate program provides initial training in the specialized areas of clinical psychology, and personnel and industrial psychology.

A year of basic training in psychology will make it possible for interested students to transfer to a doctoral training program at a larger university at the end of the first year. The total program for the two years is organized so that at the end of the second year a student likewise may transfer to a doctoral training program with a minimum loss of academic credit and time. Or, he may terminate his formal education adequately qualified to perform well professional psychological skills at a sub-doctoral level.

The Master of Arts degree will be awarded on successful completion of the two year program of study. In the event the student transfers to a doctoral program at the end of one year, he may complete his requirements for an M.A. degree at that institution.

- 400-1 to 6. *Independent Study*. Independent readings and projects in psychology. Open only to seniors and graduate students. Prereq, consent of the instructor and chairman of the department. Credit according to achievement.
- 401-4. *Psychological Problems of Adult Life*. Consideration of the psychological problems of adjustment of adults including problems of later life and old age. Prereq, 201 and consent of instructor.
- 410-4. *Experience in Group Dynamics*. A group interaction laboratory for understanding personal attitudes and viewpoints toward self and others. Prereq, 201 and consent of instructor.
- 412-4. *Mental Hygiene*. An integration of psychological knowledge and principles concerning factors and conditions in the personal life that tend to facilitate or to deter mental health. Mental health viewed as living creatively in an atmosphere of satisfactory interpersonal relations. Prereq, 305 or consent of instructor.

- 415-4. *Introduction to Psychopathology*. The nature, etiology, and treatment of psychologically ill persons. Observations of a state mental hospital and of mental patients. Prereq, consent of instructor.
- 416-4. *Psychological Considerations in Treatment*. A course designed for advanced undergraduates and graduate students entering professions in which they will be directly concerned with corrective or remedial service. To deal with basic psychological principles and considerations relevant to planning and conducting such treatment; with potentialities and limitations of individual and group treatment and with environmental manipulation.
- 420-5. *Scientific Methodology in Psychology*. A basic consideration of the nature of scientific methodology as an approach to investigation and classification of problems involved in understanding the psychological nature of man. Prereq, consent of the instructor. Lect. and lab.
- 421-5. *Experimental Techniques in Psychology*. Course a continuation of 420. Utilization of major techniques in psychological experimentation. Prereq, 420. Lect. and lab.
- 425-2. *Scientific and Professional Psychology*. A view of the contemporary scene in fields of scientific and professional psychology, including opportunities for training and service. Prereq, consent of the instructor.
- 427-4. *Introduction to Psychological Tests*. Emphasis on group tests. Prereq, consent of instructor.
- 430-2. *Personality Development and Mental Health I*. Seminar on the basic factors in psychological development and their implication for mental health and psychopathology. Prereq, consent of instructor.
- 431-2. *Personality Development and Mental Health II*. Continuation of 430. May be taken separately. Prereq, consent of instructor.
- 440-5. *Personality Theory and Dynamics*. Advanced course for senior students. Systematic view of theoretical contributions of major psychologists to basic understanding of dynamics of human personality. Prereq, psychology major, or consent of instructor.
- 441-4. *General Theories of Learning*. Particular emphasis given to theories of learning which have emerged from the psychological laboratory. Prereq, consent of the instructor.
- 501-4. *Intelligence Tests As Clinical Instruments I*. Lecture and practicum. Nature and function of individual intelligence tests; theories and assumptions underlying intelligence. Practicum designed to develop skills in use of individual age scale intelligence tests as methods of standardized clinical interviews. Prereq, consent of instructor.
- 502-4. *Intelligence Tests As Clinical Instruments II*. A continuation of 501. Lecture and practicum. Emphasis on point scales of intelligence as tools of the clinical interview. Prereq, 501 and consent of instructor.
- 503-5. *Introduction to Projective Techniques*. Basic theory and assumptions underlying projective techniques with an introduction to the Rorschach and T.A.T. tests as methods for the study of human personality. Prereq, consent of instructor.
- 504-4. *Advanced Projective Techniques*. Offers beginning training in technical skills of the Rorschach, T.A.T. and other clinical psycho-

- logical tests of a projective nature. Prereq, 503 and consent of instructor.
- 506-4. *Psychological Group Tests*. Major standardized group tests of intelligence, achievement, aptitude, interest, and personality. Emphasis on theory, research evidence, and practical use. Prereq, consent of instructor.
- 508-2. *Psychological Test Construction*. Theory basic to construction of psychological tests and the analysis and interpretation of data obtained. Prereq, consent of instructor.
- 510-4. *Theory of Psychological Counseling I*. A systematic study of various theoretical approaches to counseling and psychotherapy. Prereq, consent of instructor.
- 511-4. *Theory of Psychological Counseling II*. Emphasis on psychological counseling as a process and as an interpersonal relationship between psychologist and client. Prereq, consent of instructor.
- 512-4. *Group Dynamics and Leadership*. A theoretical and practical introduction to leadership training in dealing with the attitudes and other psychological aspects of the dynamics of group situations. Prereq, 511 and consent of instructor.
- 513-4. *Clinical Treatment of the Child*. Emphasis on methods of dealing with personality disorders in children in and out of the clinic, including play therapy techniques. Prereq, 511 and consent of instructor.
- 516-4. *Advanced Industrial Psychology I: Attitudes and Morale*. Psychological factors involved in attitudes and morale in business and industry. Prereq, consent of instructor.
- 517-4. *Advanced Industrial Psychology II: Selection and Placement*. Psychological knowledge, principles, and techniques utilized in selection and placement in business and industry. Prereq, consent of instructor.
- 518-4. *Job Analysis, Job Evaluation, and Merit Rating*. Theories and practice in these areas of industrial psychology, including major techniques of job evaluation and employee evaluation. Deals also with industrial psychometrics, The Dictionary of Occupational Titles and its use, and fundamentals of employee development. Prereq, consent of instructor.
- 525-4. *Historical Trends in Psychology*. An introduction to the history of psychology, with emphasis on the major trends and their synthesis in contemporary psychology. Prereq, consent of instructor.
- 530-4. *Social Psychology*. Psychological considerations in the interpersonal relations and the social behavior of man. Prereq, consent of instructor.
- 531-4. *Theory, Research and Problems in Social Psychology*. Major theoretical viewpoints, systematic research and significant problems in contemporary social psychology. Prereq, consent of instructor.
- 540-4. *Perception*. Theories and experimental research in the psychology of perception. Prereq, consent of instructor.
- 560-4. *Psychosomatics*. A study of the relationships between psychological processes and somatic or physiological functions. Prereq, consent of instructor.

- 570-2. *Ethical and Professional Problems in Psychology*. Principles of scientific conduct and professional ethics as formulated by the American Psychological Association.
- 571-3 to 6. *Supervised Experience in Professional Psychology I*. The student works in a professional situation under the supervision of a qualified psychologist.
- 572-3 to 6. *Supervised Experience in Professional Psychology II*. Continuation of Psychology 571.
- 573-3 to 6. *Supervised Experience in Professional Psychology III*. Continuation of Psychology 572.
- 580-3 to 6. *Seminar in Advanced Psychology*. 2, 3, or 4 hours.
- 585-1 to 6. *Seminar in Rehabilitation Counseling*. A continuing survey of recent developments and trends in the organizational structure, functions, and team interaction of specialists devoted to rehabilitation of the handicapped. Selected problems of the role of rehabilitation counselor in multiple settings. Prereq, consent of instructor. 1 to 3 hours, maximum credit of 6 hours.
- 599-5 to 9. *Thesis*. Graduate Staff.

RECREATION AND OUTDOOR EDUCATION

The graduate minor curriculum is designed to meet the needs of: (1) administrators and supervisors who wish to extend their professional competencies, particularly those whose undergraduate specialization was not in education or recreation; (2) leaders and group workers already employed, especially those who seek to qualify for advancement; and (3) graduate students with essentially an undergraduate preparation in recreation or closely related fields who wish to prepare themselves for higher roles in recreation or who wish to prepare for recreation leadership in their speciality.

This graduate minor, administered by the Recreation and Outdoor Education Department, is divided into two possible areas:

1. Community Recreation. A course of study recommended for those students who have majored in the School of Fine Arts, School of Communications, College of Liberal Arts and Sciences, and the School of Agriculture and includes Rec. 450, 520, 530, 540, 550.
2. School Recreation and Outdoor Education. A suggested program for College of Education graduates and includes Rec. 450, 470, 480, 510, 560.

Each program plan consists of a minimum of 16 quarter hours and appropriate electives shall be worked out by the student and his adviser.

- 450-4. *Principles and Interpretations of Recreation*. Principles of recreation in relation to education and everyday life. A study of basic concepts, underlying the interpretation of recreation and leisure in light of economic, psychological, political, and social conditions.
- 470-4. *Recreation in Public Education*. Emphasis on current practices and trends in curriculum content, adult education, extra-curricular activities, after school and vacation programs, and co-operative programs with other agencies.
- 480-4. *Techniques in Camping*. Preparation of material for use in camps;

- techniques of camp procedure, camp craft, woodmanship, and crafts.
- 510-4. *School Camping and Outdoor Education Workshop*. A consideration of current practices in school camps; the training of leaders for school camps and the place of outdoor education in the school program.
- 520-4. *Recreation Program Workshop*. Bases for planning community programs of recreation. Scope of leisure opportunities; selection, evaluation, and adaptation of activities.
- 530-4. *Organization for Community Recreation*. The development and administration of a recreation program. A study of community recreation including developing facilities and co-ordinating community agencies.
- 540-4. *Recreation Surveys and Planning of Facilities*. An analysis of scope, content, objectives, procedures, and types of recreational surveys and appraisals. Collection and analysis of data.
- 550-2 to 6. *Field Experiences in Recreation and Outdoor Education*. Internship in recreation and outdoor education with emphasis on administrative problems.
- 560-2 to 6. *Field Problems in School Recreation and Outdoor Recreation*. Internship in school recreation and outdoor education with emphasis on administrative problems.

SOCIOLOGY AND ANTHROPOLOGY

Candidates for the degree of Master of Arts may take a major or minor in sociology and anthropology. Graduate courses in sociology and anthropology may also be taken as a part of a social science field major leading to the degree of Master of Science in Education.

Candidates for the Master of Arts degree with a major in sociology must have completed satisfactorily the equivalent of an undergraduate minor (24 quarter hours) in sociology and anthropology. A student whose transcript shows less than this amount of work may be admitted conditionally, but will be required to make up the deficiency by taking designated undergraduate courses.

SOCIOLOGY COURSES

- 401-3. *Sociology of Infancy and Childhood*. Influences of primary groups; origins of self and role concepts; relationships between early and later development; cross-cultural and inter-class comparisons. Mr. McCrary. Prereq, 101 or 200, 310, 355.
- 402-4. *Sociology of Later Maturity and Old Age*. The social implications of an aging population; social adjustments to the aging process; personal adjustments to the roles and statuses of later maturity; a consideration of retirement and public assistance programs for older people. Mr. McCrary. Prereq, 101 or 200.
- 403-3. *Survey Course in Marriage Counseling*. Survey and analysis of the field of marriage counseling; assessment of current practices and techniques in terms of contemporary sociological theory. Prereq, 203, and permission of instructor.

- 404-3. *Community Resources*. Survey and analysis of community health, welfare, correctional and recreational agencies. Emphasis on organization, function, and services of the various agencies, public and private. Special attention to specific resources of the Illinois area. Field trips to nearby communities and agencies. Mr. Edgar. Prereq, 235, or consent of instructor.
- 405-4. *Collective Behavior*. The behavior of people in large groups; collective interstimulation and emotions; crowds, audiences, and publics; mass stimuli and mass response. Mr. Johnson. Prereq, 355 or consent of instructor.
- 408-3. *Social Research Methods I*. Scientific research methods and techniques applied to study of social phenomena. Discussion of the scope and purpose of social research; evaluating and interpreting social data. Course continuous through two quarters. Mr. Maslowski. Prereq, 200 and Math. 120, or consent of instructor.
- 409-3. *Social Research Methods II*. Continuation of 408.
- 410-3. *Supervised Research*. Practical application of research principles. Mr. Maslowski. Prereq, 408 and 409.
- 414-4. *Principles of Demography*. Techniques in analyzing and evaluating data on human population; composition, birth and death rates, life tables, migration data, estimates of future trend. Practical uses of demographic techniques. Mr. Maslowski. Prereq, Math. 120 and Soc. 314.
- 450-4. *Social Thought Before Comte*. Ancient background of European social thought; development of modern social thought. Mr. Johnson. Prereq, 200 or consent of instructor.
- 455-4. *Beginnings of Sociology*. Rise and development of scientific social thought in European influences on American social thought. Mr. Johnson. Prereq, 200 or consent of instructor.
- 460-2. *Current Literature in Sociology*. Students read, report on, and evaluate content of leading sociological journals. Prereq, 5 hours of Sociology.
- 469-3. *Theory of Group Leadership*. Classification of leaders; theories of leadership; analysis of representative leaders. Mr. Tudor. Prereq, 101 or 200, 331, 369.
- 500-3. *Cultural Change*. Processes of social change in the modern world; culture lag and conflict of norms; individual and social problems arising from conflicting system of social values and cultural norms. Mr. Johnson. Prereq, 200 or 212.
- 512-4 to 12. *Ecology of Human Communities*. Spatial and temporal organization of population and institutions with special reference to the organization of rural and metropolitan communities. Emphasis on basic research methods and current sources of data in respect to type, structure and growth of the communities. Mr. Maslowski. Prereq, fifteen hours of sociology or consent of instructor.
- 515-4. *Seminar on the Family*. The family as a field of sociological study. Assessment of significant historical and contemporary writing. Mr.

- Lantz. Prereq, fifteen hours of sociology including 310, or consent of instructor.
- 520-4. *Social Organization*. An examination of the determinants of social organization; intensive analysis of institutional configurations, social stratification, and systems of social control; review of significant writing. Mr. Lantz. Prereq, fifteen hours of sociology, or consent of instructor.
- 550-4. *Seminar: Foundations of American Sociology I*. A detailed study of the writings of outstanding American sociologists. Mr. Lantz. Prereq, fifteen hours of sociology, or consent of instructor.
- 551-4. *Seminar: Foundations of American Sociology II*. A continuation of 550.
- 556-2 to 4. *Readings in Sociology*. Supervised readings in selected subjects. Graduate staff. Hour and credit to be arranged. Prereq, consent of department.
- 560-4. *Social Processes*. Analysis of social processes and social structures which arise from them. Mr. Johnson. Prereq, fifteen hours of sociology, or consent of instructor.
- 565-4. *Seminar in Social Psychology*. Survey of theoretical systems; progress toward integrated body of behavioral theory. Mr. Johnson. Prereq, 355.
- 585-3. *Seminar in Rehabilitation Counseling*. A continuing survey of recent developments and trends in the organizational structure, functions, and team interaction of specialists devoted to rehabilitation of the handicapped. Selected problems of the role of rehabilitation counselor in multiple settings. Prereq, consent of instructor. One to three hours (maximum credit of six hours).
- 599-2 to 9. *Thesis*. Prereq, 408, 409, 410, and twenty-four hours of sociology.

ANTHROPOLOGY COURSES

- 420-4. *The Building of Cultures*. Factors involved in the growth of specific cultural patterns. Prereq, 212 and 6 hours advanced anthropology or 3 hours advanced anthropology and 3 hours advanced sociology, geography, history, or economics. Mr. Kelley.
- 421-4. *Methodology in Cultural Anthropology*. Survey of development of anthropology and its various methodological schools. Prereq, 212, and 6 hours advanced anthropology, or 3 hours advanced anthropology and 3 hours advanced sociology, geography, history, or economics. Mr. Kelley.
- 422-1 to 6. *Readings in Anthropology*. Staff. Prereq, 6 hours advanced anthropology or 3 hours anthropology and 3 hours advanced sociology, geography, history, or economics.
- 423-1 to 6. *Supervised Research in Anthropology*. Staff. Prereq, 6 hours advanced anthropology or 3 hours anthropology and 3 hours advanced sociology, geography, history, or economics.
- 440-4. *Social Anthropology*. Theory and method in community study; functional analysis, cultural themes, and value orientations in both primitive and modern cultures. Mr. Lange. Prereq, 110 or 200, or 212; and 12 additional hours in the social sciences.

- 441-4. *Primitive Religions*. Consideration of the origin of religion, and a survey of religions past and present, with emphasis on the beliefs of primitive peoples. Mr. Riley. Prereq, senior standing, or consent of instructor. Offered in alternate years.
- 442-4. *Primitive Arts and Crafts*. The development of man as a tool-using and art-loving animal. The artistic and manufacturing traditions of modern primitive peoples. Mr. Riley. Prereq, senior standing, or consent of instructor. Offered in alternate years.
- 443-4. *Applied Anthropology*. The uses of anthropology in the present-day world. How the anthropologist aids the administrator, business man, government official, and other specialists. Mr. Lange or Mr. Riley. Prereq, senior standing, or consent of instructor. Offered in alternate years.
- 444-4. *Primitive Cultures and Education*. How primitive peoples teach and perpetuate specific cultural patterns, and our own methods and goals in facilitating the acculturation of surviving primitive peoples. Mr. Lange. Prereq, senior standing, or consent of instructor. Offered in alternate summer sessions.
- 540-4 to 8. *Problems in Advanced Research*. Independent research on anthropological problems, culminating in papers suitable for publication. Staff. Prereq, graduate standing and consent of department.
- 541-4. *Pro-Seminar in Anthropology*. Fundamental concepts in anthropological theory and method; anthropology as an academic discipline; professional standards, values, and ethics. Staff. Prereq, graduate standing and consent of the department. Offered in alternate years.

SPEECH

Graduate courses are offered in speech with a major or minor in general speech (public address, interpretation, and theater) toward the degree, Master of Arts; and in speech correction and audiology toward the degree, Master of Science. Graduate courses in all fields of speech may be taken as a major or minor leading to the degree, Master of Science in Education.

GENERAL COURSES

- 408-4. *Psychology of Speech*. Nature and development of speech, its basic psychology, and the part speech plays in personality development. Winter.
- 409-4. *Research Techniques in Speech Science*. A presentation of the research techniques used in speech science with particular emphasis on equipment, experimental design and study of significant research contributions to the field. Open to advanced students in speech or consent of the instructor. Spring.
- 440-4. *Advanced Phonetics*. Phonetic theory. Materials and methods of linguistic geography. Prereq, 200.
- 503-4. *Rhetorical Theories*. (See Public Address for description.) Spring.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

PUBLIC ADDRESS COURSES

- 407-4. *History of American Public Address I*. Critical studies of American speakers; a study of selected speakers and speeches which reflect the dominant social and political ideas in American history. A lecture, reading, and discussion course. Fall.
- 413-4. *History of American Public Address II*. A continuation of Speech 407; may be taken independently. Winter.
- 417-4. *Contemporary Public Address*. A critical study of speakers and speeches selected to present the characteristic ideas of leading social and political developments in national and international affairs since 1918. A lecture, reading, and discussion course. Spring.
- 450-4. *Homiletics* (for ministers). The organization, construction, and delivery of the sermon. Emphasis will be on the speech of the minister and rhetorical features in sermons rather than on content. Fall.
- 503-4. *Rhetorical Theories*. An analysis of selected theories of public address from classical to modern times with respect to the function and objectives of public address in society, the place of rhetoric in education, and the development of modern theories of public speaking. Prereq, 12 hr. of public address. Spring.
- 524-3. *Seminar: Problems in Rhetoric and Public Address*. Individual problems in the theories and methods in various fields of public speaking; a survey of the areas and methods of graduate research in public speaking. Prereq, 12 hr. of public address. Winter.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

ORAL INTERPRETATION COURSES

- 404-4. *Recital and Lecture Recital*. Study of professional work on the public platform which is climaxed by a lecture or recital of a professional nature. Prereq, 12 hrs. of public speaking or interpretation or theater. Spring.
- 523-3. *Seminar: Problems in Interpretation*. An investigation of the more advanced problems in oral interpretation such as: creation of atmosphere, use of restraint, impersonation, and impressionism. Prereq, 18 hrs. in interpretation and theater and permission of the instructor.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

THEATER COURSES

- 402-4. *Directing*. Selection of plays, casting, and methods of rehearsal. Development of characterization, control of tempo, and similar problems studied. Students to direct or to aid in directing one-act and major plays. Prereq, 204, 206, 312. Fall.
- 403-4. *Aesthetics of the Drama and the Theater*. A study of the principles and practice of dramatic production in the light of modern aesthetic

theory. A course attempting to formulate an aesthetic judgment of the theater. Prereq, 402. Winter.

- 410-4. *Creative Dramatics*. Principles of creative dramatics. Methods of developing original dramatizations with kindergarten-primary school children. The course will be developed through study, observation, and practice. Prereq, senior or graduate standing with either a kindergarten-primary or speech major. Spring.
- 430-4. *Drawing for the Stage*. Orthographic, isometric, and perspective drawing necessary for producing floor plans, elevations, pictorial views, and working drawings essential in dramatic production. Prereq, 312. Winter.
- 432-4. *Stage Lighting*. Instruments and control equipment; principles and techniques of lighting dramatic productions. Spring.
- 438-4. *Contemporary Developments in the Theater*. Theory and practice of modern theatrical production; a critical study of theory and practice in acting, directing, production, and architecture. The rise and development of the film, radio, and television as dramatic media. Fall.
- 502-4. *Advanced Directing*. Study of and practice in the techniques of directing period plays, verse plays, music dramas, arena productions, and other types and styles of plays presenting special directing problems. Fall.
- 509-4. *The High School Theater and Its Production Problems*. Consideration of stages, machinery, equipment, light controls and instruments, production techniques, and analysis of basic needs of high school theater. Winter.
- 518-4. *Theater Audience*. A course attempting to determine (1) the relations between the drama, mise-en-scene, and theater audience; and (2) the psychological nature of the spectator's experience in the theater. Spring.
- 526-3. *Seminar in Theater Arts*. Special problems of interest to the advanced student. Winter.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

SPEECH CORRECTION, PATHOLOGY, AND AUDIOLOGY COURSES

- 405-4. *Speech Correction IV*. Clinical and school procedures in speech correction. One hour of class per week, plus 6 hrs. of clinical work. Can be repeated. Prereq, permission of instructor. Fall, Winter, Spring.
- 406-4. *Techniques and Interpretation of Hearing Tests*. Principles and techniques of testing the hearing and interpreting those tests in terms of the individual's needs. Fall.
- 412-4. *Cerebral Palsy and Aphasia*. An investigation of the etiology, problems, and therapy of cerebral palsy and aphasia. Spring.
- 414-4. *Anatomy and Physiology of Speech and Hearing Mechanism*. A study of the anatomy and physiology of speech and hearing mechanisms. (Same as Physiology 414.) Winter, Summer.

- 416-4. *Hearing*. A course designed to acquaint the student with the theories and facts concerned with the functions of the hearing mechanisms. Winter.
- 419-4. *Communication Problems of the Deaf and Hard of Hearing*. A study of the objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. (Same as Guidance and Special Education 419.) Winter.
- 420-4. *Advanced Clinical Audiometry*. Principles and procedures for advanced audiometric testing. Prereq, 406. Spring.
- 428-4. *Speech Correction for the Classroom Teacher*. Etiology and therapy for common speech defects. Open to in-service teachers, seniors, and graduate students in education. Spring.
- 429-4. *Speech Correction for Allied Professions*. A study of the etiology and resources available for the speech and hearing defective. Course designed for majors in counseling. Prereq, consent of instructor. Winter.
- 515-1 to 4. *Readings in Speech Pathology*. Supervised and directed readings in specific areas of speech pathology. Fall.
- 520-3. *Seminar in Hearing*. Seminars dealing with special hearing problems of interest to the advanced student. Special projects and field work. Winter.
- 522-3. *Seminar in Speech Correction*. Seminars dealing with special problems of interest to the advanced student. Special projects and field work. Spring.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

SPEECH EDUCATION COURSES

- 402-4. *Directing*. (See Theater for description.)
- 410-4. *Creative Dramatics*. (See Theater for description.)
- 427-4. *School and College Forensic Programs*. Coaching and organizational methods for extra-curricular and curricular forensic programs. Winter.
- 428-4. *Speech Correction for the Classroom Teacher*. (See Speech Correction for description.)
- 502-4. *Advanced Directing*. (See Theater for description.)
- 509-4. *High School Theater and Its Production Problems*. (See Theater for description.)
- 525-4. *Seminar in Speech Education*. Deals with problems of philosophy and methods of teaching speech in the elementary and secondary schools. Prereq, 306, or consent of instructor.
- 530-1 to 4. *Research Problems in Speech*. Individual work upon selected problems for research.
- 535-2 to 9. *Thesis*.

ZOOLOGY

Graduate courses in zoology may be taken as a major or a minor toward the degrees, Master of Arts and Master of Science, and as part of a major in biological science toward the degrees, Master of Science and Master of

Science in Education. Candidates for the master's degree in zoology must have at least thirty-five quarter hours of undergraduate credit in zoology equivalent to Zool. 100, 101, 105, 202, 300, 401, one of the following courses (210, 335, 408, 461, 465), and the consent of the Department.

- 401 (315)-5. *Genetics*. (Same as Microbiology 402.) Principles of inheritance, including genetic mechanisms, mutation, and selection. Prereq, 12 qtr. hrs. of biological science. Mr. Dudgeon.
- 402-4. *Natural History of Invertebrate Animals*. Observation, identification, and life histories of common invertebrate animals. A course designed for teachers. (Not open to candidates for advanced degrees in zoology.) Prereq, 100, 105, or equivalents. Alternate summers, 1957.
- 403-4. *Natural History of Vertebrate Animals*. Observation, identification, and life histories of common vertebrate animals. A course designed for teachers. (Not open to candidates for advanced degrees in zoology.) Prereq, 100, 101, or equivalents. Alternate summers, 1956. Mr. Fisher.
- 405-4. *Advanced Invertebrate Zoology*. Anatomy and natural history of representative invertebrate types, with an introduction to the taxonomy of the various phyla. Prereq, 105.
- 406-4. *Protozoology*. (Same as Microbiology 406.) Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods of culturing and studying. Prereq, 105.
- 407 (500)-5. *Parasitology*. Principles, collection, identification, morphology, life history, and control measures. Prereq, 105.
- 408-4. *Herpetology*. Taxonomic groups, identification, and natural history of amphibians and reptiles. Prereq, 202.
- 441-4. *Advanced Vertebrate Embryology*. Principles of development and organization of vertebrate animals during embryogenesis, with emphasis on mammalian forms. Prereq, 300. Mr. Foote.
- 460-3. *Upland Game Birds*. Classification, natural history, and management. Prereq, one year of zoology, including 101. Mr. Klimstra.
- 461-4. *Mammalogy*. Taxonomic groups, identification, and natural history of mammals. Prereq, 202, 300.
- 462-3. *Waterfowl*. Classification, natural history, and management. Prereq, one year of zoology, including 101. Mr. Klimstra.
- 463-4. *Game Management*. General survey of management techniques. Prereq, 101, 105, 306. Mr. Klimstra.
- 465-4. *Ichthyology*. Taxonomic groups, identification, and natural history of fishes. Prereq, 202. Mr. Lewis.
- 466-4. *Fish Management*. Attributes of fishes that affect their management, sampling, dynamics, and manipulation of fish populations, age and growth, habitat improvement, and fish culture. Prereq, 202. Mr. Lewis.
- 470-4. *Methods in Biology*. (Same as Botany 470.) A study of methods, objectives, types of courses. Laboratory and field trips to Southern Illinois high schools. Prereq, major in zoology or botany. Mr. Welch.

- 510-4. *Bio-Ecology*. Composition and development of biotic communities, and the relationships of plants and animals to their environment. Cost of field trips \$10-\$25 per student. Prereq, 310, Bot. 340. Mr. Gersbacher.
- 511-4. *Limnology*. Principles of limnology as exemplified by the lakes and streams of southern Illinois. Cost of field trips \$10-\$25 per student. Prereq, 310. Mr. Gersbacher.
- 512-3. *Animal Geography*. Principles of the distribution of the animals of the world. Prereq, 310. Mr. Gersbacher.
- 513-3. *Advanced Ornithology*. Taxonomic groups, structure, and behavior of birds. Prereq, 202. Mr. Fisher.
- 540-3. *Factors in Animal Reproduction*. Genetic and physiological factors in determination, differentiation, and modification of sex in animals. Prereq, 300. Mr. Foote.
- 560-3. *Advanced Game Management*. Principles of maintenance and improvement of game resources; individual problems. Prereq, 463. Mr. Klimstra.
- 565-3. *Advanced Fish Management*. Current problems in fish management, organization of research studies of fishes, and mathematical considerations of fish populations. Prereq, 466. Mr. Lewis.
- 581-3. *Readings in Current Zoological Literature*. Library techniques, sources of literature, and current literature. Prereq, graduate status in biological sciences.
- 596-3 to 12. *Special Research in Zoology*. Investigations in zoology other than those for the master's thesis. Only 3 hours may be credited toward the master's thesis. Prereq, approval of department. Each term. Staff.
- 599-2 to 9. *Research and Thesis in Zoology*. Only 9 hours may be credited toward the master's degree. Each term. Staff.

STATISTICS AND INDEXES

DEGREES CONFERRED, 1953, 1954

ENROLLMENT

OFFICERS AND FACULTY

GENERAL INDEX



SOUTHERN ILLINOIS UNIVERSITY

CERTIFICATES AND DEGREES CONFERRED, 1954

DIVISION OF TECHNICAL AND ADULT EDUCATION VOCATIONAL-TECHNICAL INSTITUTE

CERTIFICATE—CALCULATING MACHINES

Helen Joan Holly

Rose Mitchell

CERTIFICATE—CLERICAL

Gordon Hayes

Helen Vaughn

CERTIFICATE—STENOGRAPHIC

Donna Bradley

Donald Ray Melvin

Maggie Lee Bryant

Martha Alene Perry

Norma L. Cavaness

Anna Merle Propes

Betty Lou Coleman

Carol June Roels

Shirley Mae Greer

Lou Ann Shadowens

Dorothy Lee Hamilton

Shirley Mae Spanley

J. Kathryn Kaeser

Laura Imogene Trusty

Loretta Kelly

CERTIFICATE—WELDING

Earl Souers

Mike Switlik

ASSOCIATE IN BUSINESS DEGREE

Benjamin Chester Lowery

John Gilbert Wehrle

Paul A. Walker

Mike Wesdell

ASSOCIATE IN TECHNOLOGY DEGREE

Joseph L. Ainslie

Bobby Gene Lemmon

Donald E. Bender

Earl Long

Donald P. Giles

Marion David Minser

Edgar Edwin Hutchins

Rockne Ragsdale

Leroy Jack

Donald Roser White

Richard Jaroski

COLLEGE OF LIBERAL ARTS AND SCIENCES

BACHELOR OF ARTS DEGREE

Mary Ellen Afflack

George Randolph Casey

Helmer P. K. Agersborg, Jr.

Richard Morris Crader

William Charles Ballowe

Joseph L. Davie

Zamir Bavel

George Howard Davis

William Earnest Bull

James Burdette Doom

Veronika Berzins Burgess

Robert M. East

Richard Joseph Edwards	Floyd Bruce Lape
R. Joanne Fields	Mavis Ann Lee
William Lawrence Fisher	Llewellyn Edwin Licht
Joe Kemp Fugate	Raimond Liepins
Elmer Funderburk, Jr.	Marian Joan Smith Loughran
James Lawrence Gibbons	Robert L. McSparin
James R. Goggin	Hugh Moore
Francis J. Grabowski	Wendell Don Morgan
Arthur Grigg	Victor Louis Oberheu
Steve Grozik	David D. Pittman
Gerald Eugene Gunning	Rachel Clymore Read
Elizabeth Jean Hanagan	Willard Ray Rhine
George Thomas Harrell	William Donald Richardson
Richard T. Haruki	Robert Wayne Richey
John Patrick Heaman	Donald E. Rogers
Marilyn Jean Heyduck	Eleanor Jane Ross
Charles Carroll Hines	Jack C. Roth
Donald Elbert Hood	Robert G. Russell
Charles Warren Hoppesch	Donald Wesley Shaffer
Robert S. Hubner	Ralph C. St. John
Roy Wayne Hull	Paige LeClay Stagner
Ann Hunsaker	Robert E. Stephens
Robert D. Jackson	Kenneth DeWayne Stewart
Charles A. Joiner	Richard Alan Stowe
James Albert Jones	Edward B. Styles
Robert H. Jones	Joe Andrews Sutfin
Sibyl Davis Jones	Fred Totten
John Edward Keller	James Edward Travelstead
William Edward Keller	Robert Ernest Walker
James Cleo Lail	Howard E. White
Lois Winesburg Langan	Charlotte Lorraine Woodside

COLLEGE OF EDUCATION

BACHELOR OF MUSIC EDUCATION DEGREE

John LaVern Daum	Kenneth Thomas Mills
Harold Lee Jacobson	Norman Edwin Rodenberg
Albert Lockwood	Margaret Gentry Walter

BACHELOR OF SCIENCE IN EDUCATION DEGREE

Mae Waller Allen	Malinda Mae Ballinger
George T. Alley, Jr.	Joseph A. Barbush
Gene Dixon Allsup	Leona Rowena Newhouse Barr
Shirley Ann Appel	Dean Barringer
Norman Pyatt Armstrong	James L. Bateman
George C. Arvai	Zamir Bavel
Richard Conway Ashmore	Dorothy Rose Becker
Wilma Jean Ayd	John Alonzo Beggs
Freda Gretta Baker	Henry Franklin Berg
Roy John Baker	Betty Bettis

Doris Jean Betz
James E. Bieser
Rosa Belle Bonds
Elva D. Booth
Joanne Borella
Iantha V. Brown
Barney Kirby Browning
William Owen Brunty
Kathleen Bryant
Lois Lee Burke
Dolores Jean Burm
Lawrence E. S. Burns
Mary Rose Butcher
James Taskel Carrier
Helen T. Cast
Ida Mae Clark
Juanita Stein Coleman
Richard Gilbert Coleman
Thomas Edward Coleman
Genevieve Lynch Copeland
Mildred Frailey Corn
Rosemary Cox
Paul William Craig
Doddridge Crim
Carol Hughes Cross
Joyce Sturm Crouse
Harold L. Crowell
Gary Dangutis
Donald Darnell
Dorothy M. Davis
Helen Peterson Davis
Joan Marie Davis
Louie M. Davis
Theron A. Denton
Edward W. Dillow
Vareta Morris Doty
Patricia A. Dougan
John Wendell Douglas
John B. Dulumback
Denver Lodean Dunn
Densil D. Edwards
Ray Hugh Edwards
Roena Elaine Farrar
Joseph Stephen Fedora
James Vincent Fee
Delores Lucille Feldkamp
Ross M. Foley
Norma Jean Followell
Helen Frances Foreman
Dorothy F. Fox
Opal Barnard Frailey
David A. Frier
R. E. George
Venita Georgieff
Alline A. Goddard
Phyllis M. Goddard
William Glenn Goodman
Eugene Herbert Graves
Clara Lillian Gray
Mary Elaine Grivett
Delores Grosco
Ethel B. Hagler
Hopson E. Haile
Curtis L. Hamilton
Janet Marie Hanft
Olis Hardin
Jack E. Hargett
Ada Jeannette Harris
Ruth Henderson
Selma Fay Henry
Sue Berryman Hill
Shirley June Hohman
Delores Evelyn Howard
Charles Ireland, Jr.
Arthur Irvin
Maudie Flake Irving
Minta Jack
Phyllis Jean Jenkins
Shirley Mae Jenkins
Harold Gene Johns
Mark Henson Johnson
Delilah Elaine Jones
Martha Lee Jones
Richard Wendall Jones
Dorothy M. Kellerman
Mary Kesnar
Lillian Kick
Ambrose F. Kiestler
Gloria Jean King
Rachel Jane Kinison
Esther Grace Kirkland
Mary Ann Caroline Klingenberg
Dorothy Jean Koontz
Esther June Koontz
Frank Louis Kraus
George Henry Kuncce
Juanita Rushing Kuncce
Frederick Hal Lancaster
Reba C. Veatch Land
James Irvin Lang

Betty Jean Lathrop
Donald D. Launius
Loretta Euclid Lee
Harry Vernon Lewis
Hazel Ann Lowery
Roger Brasel Marcum
Elizabeth Akins Mars
Marilyn Lyle Massa
Audrey H. Mayer
Allan L. McCabe
Shirley Belle McConaughay
Alice M. McCree
Bettie Dion McCullah
Irma Lucille McWard
Mary Elizabeth Megna
Meriel Agnes Meneese
Eleanor Louise Miller
Kenneth D. Miller
Marie M. Millspaugh
Sadie Marie Mohan
Janavie T. Moore
Rhoda E. Moore
Rhodora Lee Mosele
Fred E. Mueller
Harold Gene Murphy
Jack Wayne Murphy
Mary Sigrid Myers
Mary Ann Narusis
Wayne Allen Nast
Patricia Ann Neagu
William Dellose Neiswinger
Clara Newbold Nelson
Marie Ellen Nickoloff
Margaret Holder Nicol
Carolyn Faye Niebruegge
James Robert Nordberg
Dorothy Ann Olds
Herbert E. Page
Aileen Webber Parker
Charles Eugene Parker
James F. Parker
Sharon Hughey Partridge
Viola L. Bower Pavlisin
Dianne Pennington
Virginia Tente Boyer Perrine
Coenia Bise Peterson
Lucille Phillips
James W. Pigg
Phyllis Eileen Piper
Marilyn Ann Pitt
Donald Laird Pratt
Paul Frederick Prussman
Don Purkapple
Coulter Stephani Pustmueller
Nancy Ann Rains
Coy A. Randolph
Ruby Hazel Randolph
Carolyn Sue Reed
Pauline M. Reid
Jack Andrew Renfro
Irma Jane Gowan Richardson
Jane McKinney Riddle
Wanda Baker Riley
Ethel Anna Kessel Rittenhouse
Beulah Simpson Robert
Alvin H. Roberts
Thomas J. Robinson
Lloyd E. Robison
Geneva Randolph Rose
Norma Jo Rushing
Wilma Faye Sanders
Irma Julia Schrader
Martin John Schrader
Martin Reinhard Schroedel
Maxine Faye Schroedel
Agnes Jo Schwehr
LeRoy John Scott
Betty Jane Seip
Emma Lou Sellars
Alice Marilyn Simmons
Leroy Dale Siville
Alfred Joe Slivka
Carol Fay Smith
Helen F. Smith
Maxine Demster Smith
Parvin R. Smith
William Otis Smith
Villa G. Spencer
Wilma Dell Peyton Springs
Amelia Ann Stallings
Charles Louis Steinburg
Mabel C. Stephens
Melberta Joan Still
Leslie C. Stillely
Jack L. Story
Alma Fulenwider Stroup
Robert Phillips Sulcer
William Rudolph Swanson
Maxine Brach Talbert
Marjorie Blodwin Thomas

Robert Thomas	Lotella Wesley
Fred Harvey Tickner	Louise Zimmerman Wheatley
Marjorie Ann Toler	Kermit Everett White
Hilma J. Torrens	Patsy Joan White
Pauline H. Tripp	Zelda Thomas Widdows
Charles Otto Tucker	Joan Lee Williams
Nick George Veremis	Mary Ann Abercrombie Willis
Laurence A. Wagley	James Thomas Wilson
Wesley Douglas Wallace	Mary Lou Wright
Bernie Eugene Weaver	Jewell A. C. Yarbrough
Francis Ernest Welch	Patricia Ann Zook
Mildred Dell Welty	

COLLEGE OF VOCATIONS AND PROFESSIONS

BACHELOR OF SCIENCE DEGREE

Charles B. Beatty	Joan Harris
Wanda Erelene Bennett	Jack Lee Jenkins
Ellis Theodore Bick	Rudolph Joseph Kovacic
Harry Birkner	Mildred Arlene Minton
Robert Irvin Bollhorst	Patrick A. Norris
Henry Allen Booten	H. Bruce Rainey
James Robert Brittingham	John Eugene Schrader
John Thomas Cherry	Harry Loren Senteney
Mary Elizabeth Crawshaw	Virginia Aileen Smart
Lester Jimmy Davis	Betty Modell Stahler
Lawrence Charles DeRousse	Ann Steingruby
Larry Gene Finley	Myrna Lynn Valentine
Dale C. Follis	Nan Van Matre
Clarence Howard Gaskins	Joseph Viterisi
Wayne Elmer Grandcolas	Robert Zdenek
Wayne L. Hanold	

DIVISION OF COMMUNICATIONS

BACHELOR OF SCIENCE DEGREE

Gwen Applegate	Maurice Eugene Norris
Robert Gray Cooper	Wyona Smith
Kenneth Loren Dean	Marilyn Jean Watson
James Edward Dowell	Nancy Jane Yost
Robert Edward Henley	

DIVISION OF FINE ARTS

BACHELOR OF ARTS DEGREE

Ruth Gilliland	Charles R. Platt
Marjorie Lee Johnson	Charles S. Throgmorton
Roland W. Pherigo	

BACHELOR OF MUSIC DEGREE

Zamir Bavel	Juanita Plantec Susin
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SOUTHERN ILLINOIS UNIVERSITY

DIVISION OF RURAL STUDIES

BACHELOR OF SCIENCE DEGREE

Robert Lee Aaron	Kenneth Lee Ozment
Ronald Aaron	Jonathan L. Rogier
James Lewis Anderson	Ronald Dean Stanhouse
James L. Brazier	Jack Lee Stroehlein
Richard Joseph Cerny	Paul Joseph Zollner

GRADUATE SCHOOL

MASTER OF ARTS DEGREE

Diana Lentz Dodd	Wesley P. Norman
Gloria A. Fuentesbella	Michael Pasko
Roberto C. Hernandez	D. O. Rettinger
Saad Salih Jaber	Richard Gregory Robinson
Edmond E. Leonard	June Fulkerson Todd
Dolores M. Manfredini	Marie A. Untereiner
James Buford Misenheimer, Jr.	George W. Ziegelmuehler

MASTER OF FINE ARTS DEGREE

Donald D. Brown	Leon Frank Moburg
Lois Markham Culver	William Robert Youngman

MASTER OF SCIENCE DEGREE

Theodore Arnold Bookhout	Mario Antonio Santos
Harrison Eugene Bullock	Jack Kent Sistler
Robert H. Mohlenbrock, Jr.	

MASTER OF SCIENCE IN EDUCATION DEGREE

Robert Charles Barnes	Robert E. Crombar
Wesley Bartimus	Leslie Crumble, Jr.
Singleton Bender	Galen Leon Davis
Frank John Bietto	Helen N. Davis
Carl Lester Birkner	John Paul Delap
Thomas I. Bishop	Cleda Margaret Dickens
Myra Blades	Earl Doughty, Jr.
George Noel Boyd	Nadine Whiteside Dungan
Billie Wesley Brown	Maude Marie Eller
Mary Ann Cagle	Gerald W. Ellis
Gerald Marcene Carr	Carl Norman England
David Phillip Carty, Sr.	James A. Finley, Jr.
Valjean Murry Cashen	William Raymond Fly
Joe Castrale	Jimmy Dale Froman
John Quincy Clark, Jr.	Lyda Barryman Gibbs
Nellie Todd Claxton	Ethel V. Gilbert
John Roger Cooper	Alma Doods Hall
Mary Elizabeth Teeter Crane	Robert Ray Hancock
Ed. Melvin Creek, Jr.	Ralph Mason Holmes
George Lindsay Criminger	Catherine Howells

Helen Huffman
Charles Richard Isherwood
Ann Elizabeth Jackson
Mary Jarvis
Patrick Carol Kelly
Roland Ross Kemmerer
Weldon Kendrick
Ted Lawrence
John Alden Ledbetter
Enno S. Lietz
Charles J. Lunderman
Vivian Elizabeth Lupardus
Jack K. Mawdsley
John J. McCarty
Van Lane McGill
Christine McKinnie
Merrill O. Moore
Mary Craig Morris
William Lawrence Morse
Van Wayne Mountain
John Robert Murphy
Doris Trainer Myers
Terry Fon Ogles, Jr.
Thomas R. Oller
Joe L. Osterman
Richard M. Packard
Wallace Lee Peebles
Joseph James Pieron
Lawrence L. Prater
Walter L. Puckett

Leonard E. Rapp
Rex Edward Ray
Eva Renfro
Agnes I. Fenster Ridley
Joseph M. Sadnavitch
Jewell Smith Schlegel
Eleanor Marie Schmitt
Daniel Elmer Seibert
Nalown Lee Shelton
Robert Lee Silber
Lodema Ferrell Sisk
Artie L. Smith
Dean O. Smith
Wendell R. Starrick
Charles Herman Thate
William D. Thompson
Cecil G. Trainer
Dorothy Mae Trefftz
Julia Jean Tucker
Gene C. Turner
Bessie Simpson Warren
Ocean Weaver
Milton Earl Weisbecker
John Gilbert Weise
Fred M. Wilferth
Herbert W. Wohlwend
Bernice Covey Woolcott
Gladys Allene R. Wright
Clifton L. Ziebold
Troy J. Zimmer

SUMMARY OF CERTIFICATES AND DEGREES, 1954

DIVISION OF TECHNICAL AND ADULT EDUCATION VOCATIONAL-TECHNICAL INSTITUTE

CERTIFICATE—CALCULATING MACHINES

	Men	Women	Total
June 13	0	2	2
August 13	0	0	0
	0	2	2

CERTIFICATE—CLERICAL

	Men	Women	Total
June 13	1	1	2
August 13	0	0	0
	1	1	2

CERTIFICATE—STENOGRAPHIC

	Men	Women	Total
June 13	1	14	15
August 13	0	0	0
	1	14	15

CERTIFICATE—WELDING

	Men	Women	Total
June 13	2	0	2
August 13	0	0	0
	2	0	2

ASSOCIATE IN BUSINESS DEGREE

	Men	Women	Total
June 13	4	0	4
August 13	0	0	0
	4	0	4

ASSOCIATE IN TECHNOLOGY DEGREE

	Men	Women	Total
June 13	9	0	9
August 13	2	0	2
	11	0	11

COLLEGE OF LIBERAL ARTS AND SCIENCES

BACHELOR OF ARTS DEGREE

	Men	Women	Total
June 13	45	10	55
August 13	16	3	19
	<u>61</u>	<u>13</u>	<u>74</u>

COLLEGE OF EDUCATION

BACHELOR OF MUSIC EDUCATION DEGREE

	Men	Women	Total
June 13	3	0	3
August 13	2	1	3
	<u>5</u>	<u>1</u>	<u>6</u>

BACHELOR OF SCIENCE IN EDUCATION DEGREE

	Men	Women	Total
June 13	63	83	146
August 13	35	62	97
	<u>98</u>	<u>145</u>	<u>243</u>

COLLEGE OF VOCATIONS AND PROFESSIONS

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	16	8	24
August 13	6	1	7
	<u>22</u>	<u>9</u>	<u>31</u>

DIVISION OF COMMUNICATIONS

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	2	4	6
August 13	3	0	3
	<u>5</u>	<u>4</u>	<u>9</u>

DIVISION OF FINE ARTS

BACHELOR OF ARTS DEGREE

	Men	Women	Total
June 13	3	2	5
August 13	0	0	0
	<u>3</u>	<u>2</u>	<u>5</u>

BACHELOR OF MUSIC DEGREE

	Men	Women	Total
June 13	1	1	2
August 13	0	0	0
	<u>1</u>	<u>1</u>	<u>2</u>

SOUTHERN ILLINOIS UNIVERSITY

DIVISION OF RURAL STUDIES

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	5	0	5
August 13	5	0	5
	<u>10</u>	<u>0</u>	<u>10</u>

GRADUATE SCHOOL

MASTER OF ARTS DEGREE

	Men	Women	Total
June 13	5	1	6
August 13	4	4	8
	<u>9</u>	<u>5</u>	<u>14</u>

MASTER OF FINE ARTS DEGREE

	Men	Women	Total
June 13	2	1	3
August 13	1	0	1
	<u>3</u>	<u>1</u>	<u>4</u>

MASTER OF SCIENCE DEGREE

	Men	Women	Total
June 13	2	0	2
August 13	3	0	3
	<u>5</u>	<u>0</u>	<u>5</u>

MASTER OF SCIENCE IN EDUCATION DEGREE

	Men	Women	Total
June 13	35	12	47
August 13	35	18	53
	<u>70</u>	<u>30</u>	<u>100</u>

TOTALS

TOTAL CERTIFICATES

	Men	Women	Total
June 13	4	17	21
August 13	0	0	0
	<u>4</u>	<u>17</u>	<u>21</u>

TOTAL ASSOCIATE DEGREES

	Men	Women	Total
June 13	13	0	13
August 13	2	0	2
	<u>15</u>	<u>0</u>	<u>15</u>

TOTAL BACHELOR'S DEGREES

	Men	Women	Total
June 13	138	108	246
August 13	<u>67</u>	<u>67</u>	<u>134</u>
	205	175	380

TOTAL MASTER'S DEGREES

	Men	Women	Total
June 13	44	14	58
August 13	<u>43</u>	<u>22</u>	<u>65</u>
	87	36	123
Total Degrees Conferred June 13	195	122	317
Total Degrees Conferred August 13	<u>112</u>	<u>89</u>	<u>201</u>
Total Degrees Conferred	307	211	518

CERTIFICATES AND DEGREES CONFERRED, 1955

DIVISION OF TECHNICAL AND ADULT EDUCATION VOCATIONAL-TECHNICAL INSTITUTE

CERTIFICATE—CALCULATING MACHINES

Isabell Jane Jenkins	Theresa Ann Savio
Omer Ludean Jeralds	Helen Schott
Shirley Jane Lane	Willova Wise

CERTIFICATE—CLERICAL PROCEDURES

Doretta Smith Bowers	Verla Ann Standerfer
Levora Delores Lyas	Virginia Terry

CERTIFICATE—COSMETOLOGY

Thelma Blackman	Eunice Kathleen Milligan
Helen H. Chamness	Verla Mae Sellars
Betty Jo Degenhardt	Roberta Jean Stallings
John Wallace Dennis	Shirley Joan West
Shirley Mae Holder	Mary Louise Zilch
Ila Lee Kean	

CERTIFICATE—STENOGRAPHIC

Martha Boyd	Madelle Gleghorn
Rose Anna Childress	Claudette Joan Hopkins
Delores Louise Davie	Jeanette Hoyle
Gloria Dean Devers	Joyce Ann Page

CERTIFICATE—WELDING

Donald Dean Bierman	Leroy Jack
John Brookhouse	Ronald Forrest Mann
Clarence Austin Christensen	Marion Lynn Moore
Hubert Leon Flannell	Charles Frederick Selby
James R. Glass	Arthur Ray Smith
Delmar R. Heidkamp	Reed Daniel Thompson
Robert Fred Heidkamp	Robert Gene Vancil

ASSOCIATE IN BUSINESS DEGREE

Lois Jean Bauernfiend	Charles Richard Given
Frank Richard Boyd	James W. Harris
Cheryl Crawshaw	William Bernard Kellenberger
Kenneth L. Eggers	Robert D. Kimber
Mildred Helen Flamm	Kenneth L. McKinzie

Wallace E. McNary
 Alan M. Moon
 Ernest Delano Mowery
 Theodore Lee Poehler
 Maurice D. Reed
 Charles Wendell Scerena

Carol Jane Schoenman
 Maynard Eugene Taggart
 Robert K. Williamson
 William K. Williamson
 Everett William Wood
 Wyanolin Wood

ASSOCIATE IN TECHNOLOGY DEGREE

James Harold Alsip
 Donald Edward Arbeiter
 Sammy Joe Barker
 Stanley D. Bass, Jr.
 Charles Frederick Bock
 Lawrence Carrell
 Donald Herman Ceresoli
 Norman W. Childers
 Robert E. Claxton
 Norman G. Clay
 Frank W. Crosson
 Robert L. Dees
 Carl W. Edwards
 Ovie C. Edwards
 Charles Lee Engler
 James L. Fairbanks
 Charles T. Flamm
 James D. Gambill
 James Michael Guard
 Clyde M. Hamilton
 James Oliver Harris

William Earl Harris
 Clyde D. Henderson
 Robert E. Herzog
 John Marvin Hines
 Albert Dwight Johnson
 Robert M. Lee
 Rodney Dean Lee
 Travis E. McClarney
 Edmund Paszkiewicz
 Marion Regis
 Robert Wayne Sandusky
 Charles E. Smith
 Robert L. Surina
 Harry Joe Tabor
 John Joesph Tarro
 Frank Lee Toler
 Carl E. Tripp
 Charles Alfred Turner
 Henry Franklin Varner
 James A. Walker
 Davye L. Young

COLLEGE OF LIBERAL ARTS AND SCIENCES

BACHELOR OF ARTS DEGREE

William J. Adams
 Jerry Joe Anderson
 Preston Clarke Beal, Jr.
 Norman Edwin Bowers
 David Charles Boyce
 Richard Dean Brewer
 Francis Edward Brooks
 Norman D. Brostmeyer
 Robert Wilson Brown
 Edsel Tony Bucovaz
 Donald Ellis Cantrell
 Donald Gene Carlton
 Richard Everett Chapman
 Wilburt Fair Craig III
 Kenneth Alfred Davis
 Joseph Mario de Bernardi

Robert Dale DeWitt
 Myron D. Dillow
 Donald R. Dodson
 Carmen Davis Dohanich
 Robert Carroll Everett
 William Leslie Farrar, Jr.
 Charles Denny Freese
 Robert Doyle Fritts
 Robert Dean Garrison
 Charles Leon Gibson
 Charles Joseph Gossett
 Edward E. Graskewicz
 Alfred L. Greiman
 John Edward Grimes, Jr.
 Richard C. Guyton
 Anna Marie Hart

Horace V. Harvey	John Donald Pope
William Leo Herrmann	Gerald Hadley Pugh
Richard William Hoffarth	Grover Reinbold
Paul Richard Hoffman	Charles William Rhinesmith
Louis Paul Hoover	Gene Edward Richards
John O. Hudgins, Jr.	Donald L. Roper
Murvel L. Huffstutler	George Robert Russell
Leslie Gene Jackson	Donald Elmer Seizinger
Charles D. Jay	Gary Kae Shaw
William George Kammler	Russell Yates Snow
Charles E. Lane	Gerald Ray Steffy
Thomas H. Laufer	Walter Otto Stieglitz
James Robert Lindsey	Norman Emil Strotheide
Gladys House Lingle	Edward H. Stueber
Frank S. Lofton, Jr.	James Rodell Tosetti
Darrell Earlene Louder	G. Robert Tucker
Ronald Lee McMillan	Roger L. Turner
William Joseph Melven	William Hays Urban
Carlyle L. Michel	Robert Louis Wagner
Jerome Maurice Mileur	William Floyd Wakeland
Annie L. Mitchell	Jack Eugene Wallace
Betty Colleen Mitchell	Joseph Harry Walter
Donald Webster Moore	Max E. Wawrzyniak, Jr.
Melba Frances Morris	K. Terry Wendler
Stanley Dean Nicol	Joe Crawford Winfrey
Andrew Miller Patterson	James F. Winning
Lloyd Eugene Penland	Harley L. Young
Charles Richard Peters	

COLLEGE OF EDUCATION

BACHELOR OF MUSIC EDUCATION DEGREE

Lola Florence Crim	Boyd N. LaMarsh
James Robert Farmer	Wayne Everett Minton
John Andrew Fly	Gwendolyn Rose Weltge
Phyllis Jean Foster	Bettye Mae Williams
Charles E. Keaton	Frances Evelyn Willis

BACHELOR OF SCIENCE IN EDUCATION DEGREE

Ola Anderson Alexander	Herta L. Berger
Esther Jean Andres	Nancee Ann Bergfeld
Dolores Jean Armstrong	Regina Carolyn Bernhard
Dwight Allen Armstrong	Robert Warren Bethel
Patricia A. Bahn	Jeanette Anne Birch
Marguerite Wright Baker	Frankie Gene Blackman
Wanda Fern Barger	Juanita B. Boos
William Eugene Bauer	Mildred Joyce Borella
Andrew Edward Bell	Olive Velva Boyle
James William Benton	Ita Lou Bozarth

Edra Tweedy Bricker
Kathryn Webber Briley
Sally Marie Brockman
Billy Ray Brubaker
Frederic L. Bruno
Judith Ann Carter
Remo Castrale
Marilyn Johnson Cavaness
Frank A. Ceney, Jr.
Willis Edward Coatney
Joan Coleman
Janet Cook
Nadine Louise Cowling
Mary Kathryn Cummins
Bill Dabney, Jr.
Jeanean Damron
Fern Berdell DeJarnett
Elizabeth Ann Dorris
Mary Margueriete Williams Doty
R. Earl Doty
Elizabeth H. Drake
Lora Belle Drew
Daisy Fink Drone
Carlene Bonds Dyer
Gordon L. Eckols
Evelyn Fay Eddings
Peggy Joann Kerr Edwards
Samuel Baker Edwards
Mary T. Elders
Jerry G. Engle
Richard C. Erickson
Martha Lucille Evans
Richard Franklin Farmer
Carris Reuhan Finke
Josephine G. Flauaus
Lena Joanne Forker
Ruby Irene Lewis Foster
Harry Thomas Fouke
John Elbert Fox
Allen Austin Free
Beulah Syers Frohock
Harold E. Garner
Donna Lee Garrison
David K. Gentry
James A. Gerlach
Barbara Joann Goegelein
Anna Murray Gollither
Barbara Ann Graham
Charles R. Gruner
Frank H. Gunter
Patty Sue Lamont Guyton
Meta Davenport Hall
Robert Earl Hamilton
Wanda R. Hamilton
Alice M. Hardy
Norma Lawson Harmon
Frances Elizabeth Harn
Frederick Delano Harris
Mary K. Harris
Stella Howard Harris
Carolyn Sue Harriss
Elaine Ann Hartley
Fred E. Harvey
Jean Elise Harvey
Virginia Lynn Havens
Jacqueline Ferne Hayes
Anna Mae Hays
Frank C. Hayse
Jean Mossman Heaton
Leslie Hines
Juanita F. Hiser
Hallie Hallerman Hoffarth
Alice Hogendobler
Imogene H. Holliday
Thora S. Holloway
Bonnie M. Homan
Carl Richard House
Laura Ernestine Howell
Robert Eugene Howell
Edith R. Wooton Hunsaker
Lois Ermine Jenkins
Clifford L. Johnson
Laura Belle Johnson
Ruby Wiehn Johnson
Doris Alvey Jones
William Schroeder Jones
Wilma Fay Jordan
Irene B. Kaegi
Joseph Kalla, Jr.
Betty Jo Kelley
Emma Grace Kelly
June Marie Kiehna
Herman H. Klohr
Phyllis M. Knight
Robert Donald Korando
Robert Evans Krause
Lewis J. Kribs
Gibson Cochran Kurtz, Jr.

Pauline LaVerne Laur	William Henry Orr
Mary Kathryn Lavelle	Mary Catherine Pampe
Edra Turnage Lipscomb	Margery Ellen Parker
Grace Brown Loos	Kathryn Brooks Parrish
Barbara Telford Lyons	Juanita Nowers Partington
Dorothy Dale Malone	Patrick E. Partington
Clara Sherman Manor	Ethel Patterson
Kathryn Edith Marshall	Jo Ann Norovich Peak
Carla Hanser Martin	Isabel Pennington
Lindel R. Martin	Juanita Peradotto
Sue Alice Martin	Geraldine Browning Perkins
James Joseph Massa	Karole K. Pflanz
James Matheny	Bertha Nell Phillips
Archie Gerald Mayo	Mary Jane Phillips
Norma Dean McArthy	Joseph Chaly Piland
James McCallum	Joseph Elsworth Plasters
Charlotte McCann	Clarence Richard Propes
Betty Jean McCarns	Margaret Stella Pryor
Dorothy Pautler McConachie	Gerald Hadley Pugh
Marilyn Jo McCoskey	Donald L. Quillman
Gene A. McMullin	Nancy Davisson Ragsdale
Mida Davis McPhail	Shirley Mae Randle
Elaine Plate Meier	Ruth E. Reichart
Felecia Kay Menkosky	Marvin John Rensing
Arnold G. Merbitz, Jr.	Ray Emmerson Rhine
Rolland R. Metcalf	Mary Ann Richardson
James Franklin Mick	Charles V. Rider
James Christoe Milford	Jack B. Ridley
Herbie Marie Miller	Helen Louise Riley
June Fligor Miller	Almedia June Rix
Nancy Fern Miller	Barbara Ann Rose
Nellie Wilma Millikan	Barbara Jean Ross
Thomas R. Millikin	Myrl Benton Rushing
Nellie Boyd Miltenberger	Bernadine Hanna Russell
Mabel Dickson Miskell	Margaret Bonham Sabine
Mary Elizabeth More	Thomas Edward Sanders
Mary Saul Morgan	Lorna Joan Mayo Sands
Mary Lou Morris	Paul Russell Santy
Etta Lucille Mosley	Jane Ann Schorfheide
Patrick Henry Mudd	Bobby Lee Scrivner
Donald John Mueller	Harlon L. Seats
John Arthur Mueller	Alvina Minnie Seibert
Roger Gene Mueller	James L. Sells
Sue Ewing Nance	Jack Shanks
Georgia Opal Hall Nave	Laura Murphy Shanks
Alice Nichols	Lorene Patton Shewmaker
Louis S. Nimmo	Omer H. Sims
Elizabeth Lee Allen Norwood	Lowell L. Smith
Verena Agnes Nothaus	Mildred W. Smith

Noel L. Smith	Nina R. Voeste
Sally Moore Smysor	Regeta Marie Vogel
Betty Jean Snead	Lillian Ernestine Waffer
Marjorie Ann Sohn	Wilma W. Wagley
Alfred Spratt	John C. Waite
Eugene Springer	Rebecca Jane Murrie Walbrigh ^t
Richard Allen Stancliff	James Hamilton Walwark, Jr.
Betty Steele	June Rose Weber
Rachel Wilson Stoever	Edaine C. Wedemeyer
James A. Stoffler	Aurela Lucille Weidner
Melvin Ray Stoltz	Harvey Welch, Jr.
Mercia Thompson Stott	Donald George Wendell
Ruth C. Straker	Jerry Gordon West
Martha Strickland	Ruth Westbrook
David Macaulay Stroup, Jr.	F. Robert Whelan
Nolan Sullivan	Margaret J. Whitaker
Cynthia Helen Swartz	Betty Wantland White
Jacqueline Sykes	Naomi June Whitehead
Maybelle Louie Taylor	Marcel Whitson
Richard Lee Terry	Charles Clifford Wieland
Sylvia Tresso Tharp	Ruth Lucinda Williams
Jacque Anthony Theriot	Cordula E. Willis
Lewis J. Thrasher	Leo Wilson
Richard L. Toon	Norma Gene Wood
Elizabeth Ann Townsend	Raymon H. Yancy
Mary Joan Truitt	James Evans Young
Helen Vanseghi	Verlan Joseph Zapotocky
Nolan LaVar Vest	John A. Ziegler

SCHOOL OF AGRICULTURE

BACHELOR OF SCIENCE DEGREE

Vaughn James Batson, Jr.	O'Dean Hubbard
William Lesley Bourland	R. Alden Miller
Robert Glyn Brown	Paul Richard Albert Mueller
Charles Dennis Coleman	Martin T. Phillips
Glendel Chester De Neal	Donald Edward Eugene Vanetti
Donald G. Gates	Loren E. Welch
Floyd Wiley Griffith	

BACHELOR OF SCIENCE IN AGRICULTURE DEGREE

Dale Eugene McDonald	Robert B. Rogers
James Lecial Raymer	Evan Donald Smith

SCHOOL OF BUSINESS AND INDUSTRY

BACHELOR OF SCIENCE DEGREE

Donald L. Barnard	Ray Blaszak
Donald William Bartling	David Dwaine Bollinger
Joyce Ann Bellamey	Alden Dwane Bruns

Thomas Richard Campbell	James F. Metcalf
Bernard E. Chapman	Rolland R. Metcalf
Lloyd Donald Cox	Jane Ellyn Meyer
Curtis Farris Cummins	Robert Lewis Meyer
Robert Edward Davis	Albert Eugene Mikes, Jr.
Neil Lavern Dillard	Paul Milton Morris
Lawrence John Ell	Charles William Mueller, Jr.
George Eovaldi, Jr.	Charles Arthur Newberry
Jackie L. Faulkner	Ralph L. Nofsinger
Paul Lawrence Fehrenbacher	Donald Lavern O'Keefe
Robert D. Francis	Dorothy Marie Osborn
Chester Glenn Allen Fuller	Charles Edward Pisoni
Richard Allen Gardner	Velda Joyce Prince
Iris Irene Garrott	James Shelly Prowell
Robert E. Griggs	Joe C. Racine
Robert Michael Hardy	Edward F. Schweinberg
Ruth Marie Hoffman	David W. Shaw
Thomas Francis Holobowski	Ben Alfred Shuppert
Clarence Allan Ingles	Richard Grant Smith
James Richard Jenkins	Alfred Spratt
Ronald Dean Johnson	Gerald George Stevens
Clifford Arlen Karch	David K. Sutfin
Gilbert Arthur Klarr	Robert E. Thorne
Herbert E. Komnick	William F. Todd, Jr.
Robert Donald Korando	William Rae Tonso
Edwin Harrell Krutsinger	Mary Ann Travelstead
John Scott Lindner	Kent Royal Venters
Alexander Mason Low, Jr.	John Lewis Walther
Donald Samuel Martin	Ronald Dale Williams
Leonard Gene Massa	Phyllis Ann Wise
Thelma Atwood Mathis	Raymond H. Yancy
Jackie J. McCluskie	

SCHOOL OF COMMUNICATIONS

BACHELOR OF SCIENCE DEGREE

James Robert Aiken	Carole Krusen Poos
Ralph Edward Becker	Robert Poos
Lloyd F. Bitzer	Donald Eugene Primas
Dixie Lee Buyan	John F. Welch
Daniel James Halloran	Teresa A. White
Bill B. Joseph	Dorothy L. Womack
Jerome H. Kolesky	William James Young
George J. Kuhn	

SCHOOL OF FINE ARTS

BACHELOR OF ARTS DEGREE

Jack Franklin Barnett	Susan Krejci Stevens
Samuel Norwood Berry	Charles William Walter
Forrest A. Junck	

DEPARTMENT OF HOME ECONOMICS

BACHELOR OF SCIENCE DEGREE

Beatrice Hill Bagby

GRADUATE SCHOOL

MASTER OF ARTS DEGREE

Siegfried Adler	Hans-Werner Grueninger
Bill Almond	Frances Tapella Huff
Oswaldo F. N. C. Bacchetta	Charles Adrian Joiner
Jack Edward Barth	Janet Pettee Milligan
Zamir Bavel	Carolyn Cowart Misenheimer
Hildrey I. Bement	Harold Ernest Perkins
Carl W. Blood	David D. Pittman
Mary Esther Cleland	Khalid A. Rishani
Edward Lawrence Corder, Jr.	Ray C. Rist
R. Joanne Fields	Eugene Garfield Sherman, Jr.
Sergio Gazitua Recart	Mary Isabel Judith Wilson
Harold Lee Gentz	

MASTER OF FINE ARTS DEGREE

Darwin Reid Payne

MASTER OF SCIENCE DEGREE

William Charles Ballowe	John Heaman
Arturo Brenes-Pomales	Charles Louis Heffington
John Henry Craig, Jr.	John Paul Hughes
Robert O. Creek	Marjorie L. Johnson
Clarence DeMattei	Geraldine Jones
Robert Brown Drysdale	Lina Foster Murrish
Harry Dubets	Jeanne Jones Schneider
Jack Allen Ellis	Gerald E. Webb
Gerald Eugene Gunning	

MASTER OF SCIENCE IN EDUCATION DEGREE

Dwight Robert Aitken	Earlie Carter
Lois Catherine Barth	Guthrie O. Catlin
Charles B. Beatty	Kenneth Earl Cople
Frank Frisch Bleyer	Betty Louise Corners
Karl Dietrich Bramstedt	Daniel O. Cox
Elton Gaydon Brandt	Francis H. Craig
William Paul Brann	Lou Ann Beggs Creek
Robert Gene Brayfield	Mont Davis, Jr.
Kittrell Bernard Brewer	Raymond Ellery Deason
LaDaw Wainscott Bridges	Martha C. Dickson
Samuel Brindle Quirogas	Carl L. Dillow
Peggy Lou Browning	Russell G. Duncan
Norman Eugene Buckner	Virginia Dunihoo
Olan Dean Calhoun	Sue Jackson Eberhart
Robert Leroy Carr	Blanche Lambert Edwards

John Eloff, Jr.	Fred E. Noeth
John L. Evers	Theodore J. Noeth
James Vincent Fee	Thomas G. Noeth
Mary I. Francis	Dorothy Ann Olds
Faun Jennette Miller Gahan	Faye Niebruegge Pape
Arthur W. Gilliam	James F. Parker, Jr.
Clarence H. Goldsmith	Martha Pearl Stallings Parkhurst
Ira L. Grandon	Adrian Edward Phegley
Herman Albert Graves, Jr.	Clarence Baird Pierce
Charles Edward Greer	Ruth Alexander Pippins
Engel Eugene Grow	William Edward Plumlee
Mabel Lorene Hake	Warren G. Priest
Mary Jane Harris Hinners	Andrew Robert Rendleman
Bill Hollada	Logan Roark, Jr.
Harvey Wesley Hoover	Conrad W. Robison
Robert Winton Hurt	Lloyd E. Robison
Lucy Barham Ingram	Nancy Lucille Roos
Hannah Joe	George Sawchak
Paul Jones Johnson, Jr.	Bill Schimpf
James A. Jones	Robert R. Schmatz
William Archie Jones	Bobby Lee Scrivner
William T. Joplin	Jack Daniel Simmons
Barbara Cline Kelly	Troy Wilson Sims
Edward A. Kimmle, Jr.	Leroy Dale Siville
Katherine T. Kowalis	Cameron Cotter Smith
Edward P. Kownacki	Orren R. Smith
Newton Parker Kyle, Jr.	Robert Henry Smith
James Cleo Lail	Gladys Keller Snider
Constance Fay Leonard	James Lee Stephens
William Jing-Foo Lew	Auda A. Stone
Charles Leland Lockard	Marjorie Womble Stull
James Lovin	Robert Phillips Sulcer
Winona Helen Malpass	Elizabeth Faulkner Sullivan
Reid Earl Martin	Damon Summers
Martha Louise McAndrew	Ivan Bernard Swan
Allan L. McCabe	Robert Thomas
Marguerite McCann	Anne C. Thompson
John Wesley McDowell	Anna Mae Todd
Harland Gene McFarland	Stanley Veach
Donald Clinton McQueen	Dale T. Walker
Charles E. Miller	Wesley Douglas Wallace
Kenneth S. Moxey	Freeman Arthur Wolfe
Elmore W. Nelson	Ronald Steven Zalokar
Marilee Manes Newberry	Michael William Zekas

CERTIFICATE OF SPECIALIST

Lloyd Dean Bauersachs

SUMMARY OF CERTIFICATES AND DEGREES, 1955

DIVISION OF TECHNICAL AND ADULT EDUCATION VOCATIONAL-TECHNICAL INSTITUTE

CERTIFICATE—CALCULATING MACHINES

	Men	Women	Total
June 13	0	6	6
August 13	0	0	0
	0	6	6

CERTIFICATE—CLERICAL PROCEDURES

	Men	Women	Total
June 13	0	4	4
August 13	0	0	0
	0	4	4

CERTIFICATE—COSMETOLOGY

	Men	Women	Total
June 13	1	10	11
August 13	0	0	0
	1	10	11

CERTIFICATE—STENOGRAPHIC

	Men	Women	Total
June 13	0	8	8
August 13	0	0	0
	0	8	8

CERTIFICATE—WELDING

	Men	Women	Total
June 13	14	0	14
August 13	0	0	0
	14	0	14

ASSOCIATE IN BUSINESS DEGREE

	Men	Women	Total
June 13	16	4	20
August 13	2	0	2
	18	4	22

ASSOCIATE IN TECHNOLOGY DEGREE

	Men	Women	Total
June 13	40	0	40
August 13	2	0	2
	<u>42</u>	<u>0</u>	<u>42</u>

COLLEGE OF LIBERAL ARTS AND SCIENCES

BACHELOR OF ARTS DEGREE

	Men	Women	Total
June 13	60	5	65
August 13	21	1	22
	<u>81</u>	<u>6</u>	<u>87</u>

COLLEGE OF EDUCATION

BACHELOR OF MUSIC EDUCATION DEGREE

	Men	Women	Total
June 13	2	3	5
August 13	3	2	5
	<u>5</u>	<u>5</u>	<u>10</u>

BACHELOR OF SCIENCE IN EDUCATION DEGREE

	Men	Women	Total
June 13	71	103	174
August 13	29	69	98
	<u>100</u>	<u>172</u>	<u>272</u>

SCHOOL OF AGRICULTURE

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	13	0	13
August 13	0	0	0
	<u>13</u>	<u>0</u>	<u>13</u>

BACHELOR OF SCIENCE IN AGRICULTURE DEGREE

	Men	Women	Total
June 13	0	0	0
August 13	4	0	4
	<u>4</u>	<u>0</u>	<u>4</u>

SCHOOL OF BUSINESS AND INDUSTRY

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	53	8	61
August 13	7	1	8
	<u>60</u>	<u>9</u>	<u>69</u>

SCHOOL OF COMMUNICATIONS

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	9	4	13
August 13	<u>2</u>	<u>0</u>	<u>2</u>
	11	4	15

SCHOOL OF FINE ARTS

BACHELOR OF ARTS DEGREE

	Men	Women	Total
June 13	3	0	3
August 13	<u>1</u>	<u>1</u>	<u>2</u>
	4	1	5

DEPARTMENT OF HOME ECONOMICS

BACHELOR OF SCIENCE DEGREE

	Men	Women	Total
June 13	0	0	0
August 13	<u>0</u>	<u>1</u>	<u>1</u>
	0	1	1

GRADUATE SCHOOL

MASTER OF ARTS DEGREE

	Men	Women	Total
June 13	7	2	9
August 13	<u>10</u>	<u>4</u>	<u>14</u>
	17	6	23

MASTER OF FINE ARTS DEGREE

	Men	Women	Total
June 13	1	0	1
August 13	<u>0</u>	<u>0</u>	<u>0</u>
	1	0	1

MASTER OF SCIENCE DEGREE

	Men	Women	Total
June 13	10	1	11
August 13	<u>3</u>	<u>3</u>	<u>6</u>
	13	4	17

MASTER OF SCIENCE IN EDUCATION DEGREE

	Men	Women	Total
June 13	46	15	61
August 13	<u>40</u>	<u>17</u>	<u>57</u>
	86	32	118

CERTIFICATE OF SPECIALIST

	Men	Women	Total
June 13	1	0	1
August 13	0	0	0
	<u>1</u>	<u>0</u>	<u>1</u>

TOTALS

TOTAL CERTIFICATES

	Men	Women	Total
June 13	15	28	43
August 13	0	0	0
	<u>15</u>	<u>28</u>	<u>43</u>

TOTAL ASSOCIATE DEGREES

	Men	Women	Total
June 13	56	4	60
August 13	4	0	4
	<u>60</u>	<u>4</u>	<u>64</u>

TOTAL BACHELOR'S DEGREES

	Men	Women	Total
June 13	211	123	334
August 13	67	75	142
	<u>278</u>	<u>198</u>	<u>476</u>

TOTAL MASTER'S DEGREES

	Men	Women	Total
June 13	64	18	82
August 13	53	24	77
	<u>117</u>	<u>42</u>	<u>159</u>

TOTAL SPECIALIST CERTIFICATES

	Men	Women	Total
June 13	1	0	1
August 13	0	0	0
	<u>1</u>	<u>0</u>	<u>1</u>
Total Degrees Conferred June 13	331	145	476
Total Degrees Conferred August 13	<u>124</u>	<u>99</u>	<u>223</u>
Total Degrees Conferred	455	244	699

UNIVERSITY ENROLLMENT, 1953-1954

	Men	Women	Total
Summer Session, 1953	794	902	1,696
Fall, 1953	2,207	1,242	3,449
Winter, 1953-1954	2,121	1,139	3,260
Spring, 1954	2,144	1,150	3,294
Individuals on Campus, 1953-54	3,032	2,020	5,052
Individuals, Belleville Residence Center, 1953-54	42	135	177
Individuals, Extension, 1953-54	498	1,264	1,762
Total Individuals on Campus, Extension and Belleville Residence Center, 1953-54...	3,523	3,311	6,834
Individuals, Non-collegiate Grade, in University School, 1953-54.....	314	312	626
Total Individuals (Duplicates Excluded), 1953-54	3,837	3,623	7,460
Total Registrants in Division of Technical and Adult Education Courses, 1953-54, (Non-credit)			3,368

UNIVERSITY ENROLLMENT, 1954-1955

	Men	Women	Total
Summer Session, 1954	1,242	1,068	2,310
Fall, 1954	2,988	1,495	4,483
Winter, 1954-55	2,908	1,372	4,274
Spring, 1955	2,849	1,381	4,230
Individuals on Campus, 1954-55.....	4,092	2,375	6,467
Individuals, Belleville Residence Center, 1954-55	51	113	164
Individuals, Extension, 1954-55	382	1,018	1,400
Total Individuals on Campus, Extension, and Belleville Residence Center, 1954-55....	4,432	3,330	7,762
Individuals, Non-collegiate Grade, in University School, 1954-55.....	352	303	655
Total Individuals (Duplicates Excluded), 1954-55	4,784	3,333	8,417
Total Registrants in Division of Technical and Adult Education Courses, 1954-55, (Non-credit)			2,851

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