

1971

## Graduate Academic Catalog (1971-1972)

University of Nebraska at Omaha

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University of Omaha 1908-1931  
Municipal University of Omaha 1931-1968

UNIVERSITY OF NEBRASKA  
AT OMAHA

*Bulletin of the*

GRADUATE COLLEGE

1971-1972

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## OFFICIAL CALENDAR

## SUMMER 1971

June 11-12	Regular Registration.
June 14-July 16	First Session.
June 14-Aug. 5	Evening Session.
June 18	Theses due in Graduate Office.
June 19	Last day for submitting all admission credentials for admission to second summer session.
July 5	Holiday (University closed—day and evening.)
July 19-Aug. 20	Second Session.
July 23	Last day for filing applications for degrees to be conferred August 31, 1971.

## FIRST SEMESTER 1971-72

Aug. 1	Last day for submitting all admission credentials for admission to first semester.
Aug. 26-27 30-31	Regular registration and changes.
Sept. 1	Official beginning of first semester at 0730. (Day and evening classes begin.)
Sept. 1	Late registration begins.
Sept. 6	Labor Day. University closed. No day or evening classes.
Sept. 8	Last day up to 1600 for registering for a class, or adding a class to a schedule (or changing a class from "audit" to "credit").
Sept. 25	Band Day.
Oct. 8	Founders' Day.
Oct. 8	Homecoming. No day classes after 1230. (Evening classes meet as usual.)
Oct. 9	Homecoming Football Game.
Oct. 18	Six-week reports on first-semester Freshmen due in Academic Deans' Offices by 1600.
Oct. 23	Parents' Day.
Oct. 27	Last day a class may be dropped in order to receive a "W." Last day a class may be changed from "credit" to "audit."
Nov. 12	Theses Due in the Graduate Office.
Nov. 22	Last day for filing applications for degrees to be conferred December 31, 1971.
Nov. 24	(Wednesday) Thanksgiving recess begins at 2140.
Nov. 29	(Monday) Classes resume at 0730.

Dec. 15	"Dead" Day. No day classes nor student activities. (Evening classes meet as usual.)
Dec. 16-23	Final Examinations.
Dec. 18	Commencement. Saturday Afternoon.
Dec. 19	Last day for submitting all admission credentials for admission to second semester.
Dec. 23	Official end of first semester.

## SECOND SEMESTER 1971-72

Jan. 14-17-18	Regular registration and changes.
Jan. 19	Official beginning of second semester at 0730. (Day and evening classes begin.)
Jan. 19	Late registration begins.
Jan. 25	Last day up to 1600 for registering for a class, or adding a class to a schedule, (or changing a class from "audit" to "credit").
March 17	Theses Due in the Graduate Office.
March 25	Spring vacation begins at noon.
April 3	Classes resume at 0730.
April 14	Last day for filing applications for degrees to be conferred May 20, 1971.
May 5	Ma-ie Day. Student Holiday. No day classes. (Evening classes meet as usual.)
May 9	"Dead" Day. No day classes nor student activities. (Evening classes meet as usual.)
May 12	Last day for submitting all admission credentials for summer sessions.
May 10-17	Final Examinations.
May 17	Official end of second semester.
May 20	Sixty-third Commencemnt. Saturday.
May 26	Alumni Achievement Day.
May 30	Legal Holiday. University closed.

## SUMMER 1972

June 9-10	Regular Registration.
June 12-July 14	First Session.
June 12-Aug. 3	Evening Session.
June 16	Theses Due in Graduate Office.
June 17	Last day for submitting all admission credentials for admission to second summer session.
July 4	Holiday (University closed—day and evening.)
July 17-Aug. 18	Second Session.
July 24	Last day for filing applications for degrees to be conferred August 31, 1972.

## UNIVERSITY OF NEBRASKA AT OMAHA

The Board of Regents

Robert L. Raun, Minden

*President*

J. G. Elliott, Scottsbluff

James H. Moylan, Omaha

Kermit Hansen, Omaha

Robert Prokop, M.D., Papillion

Robert Koefoot, M.D., Grand Island

Edward Schwartzkopf, Lincoln

Kermit Wagner, Schuyler

G. Robert Ross, Ph.D., Corporation Secretary

## ADMINISTRATION

D. B. Varner, M.S., Chancellor

Kirk E. Naylor, Ed.D., President

University of Nebraska at Omaha

Philip Milo Bail, Ph.D., LL.D., President Emeritus

William L. Gaines, Ph.D., Dean of Academic Affairs

Robert C. O'Reilly, Ed.D., Director of Grants Development and  
Institutional Research

Donald J. Pflasterer, M.Ed.

Jay W. Cox, M.A.

*Dean of Student Personnel**Director of Admissions*

Virgil V. Sharpe, B.A.

Harold D. Keefover, B.S.

*Registrar**Director of Business and Finance*

## THE GRADUATE COLLEGE

Elton S. Carter, Ph.D.

*Dean and Chairman of the Graduate Faculty*

## THE UNDERGRADUATE COLLEGES

John V. Blackwell, Ph.D.

*Dean, The College of Arts and Sciences**The College of Engineering and Technology**Dean to be announced*

Paul C. Kennedy, Ed.D.

*Dean, The College of Education*

George G. Heather, Ph.D.

*Dean, The College of Business Administration*

William T. Utley, M.A.

*Dean, The College of Continuing Studies**Director, Summer Sessions*

## GRADUATE FACULTY

1971-72

- ROBERT L. ACKERMAN ..... *Elementary Education*  
Ed.D., University of Nebraska, 1966; Professor
- PAUL B. ACKERSON ..... *Secondary Education*  
Ed.D., Oklahoma State University, 1965; Professor
- FREDERICK W. ADRIAN ..... *History*  
Ph.D., Ohio State University, 1942; Professor
- JAMES C. AKERS ..... *Special Education (Reading)*  
Ed.D., Oklahoma State University, 1969; Assistant Professor
- CLIFFORD ANDERBERG ..... *Philosophy and Religion*  
Ph.D., University of Wisconsin, 1953; Professor and Chairman of Department
- AARON ARMFIELD ..... *Special Education*  
Ed.D., Northern Colorado University, 1964; Associate Professor and Chairman of Department
- BRUCE P. BAKER II ..... *English*  
Ph.D., Texas Christian University, 1968; Associate Professor and Chairman of Department
- GEORGE BARGER ..... *Sociology*  
Ph.D., University of Missouri, 1964; Professor and Chairman of Department
- NICHOLAS BARISS ..... *Geography*  
Ph.D., Clark University, 1967; Associate Professor
- PAUL L. BECK ..... *History*  
Ph.D., University of Nebraska, 1961; Professor
- \*GORDON BECKER ..... *Psychology*  
Ph.D., University of Pittsburg, 1955; Professor
- JOSEPH V. BENAK ..... *Civil Engineering*  
Ph.D., University of Illinois, 1967; Associate Professor
- ROBERT W. BENECKE ..... *Business Administration*  
*(Accounting and Finance)*  
D.B.A., University of Colorado, 1966; Associate Professor
- KENNETH BERRY ..... *Psychology*  
Ph.D., Texas Christian University, 1964; Assistant Professor of Medical Psychology, College of Medicine (Joint Appointment)
- HOLLIE B. BETHEL ..... *Elementary Education*  
Ed.D., University of Colorado, 1957; Professor and Chairman of Department
- JOHN V. BLACKWELL ..... *Art*  
Ph.D., State University of Iowa, 1957; Professor and Dean, College of Arts and Sciences
- RICHARD BLAKE ..... *Counseling and Guidance*  
Ph.D., University of Missouri, 1966; Associate Professor and Chairman of Department
- M. JEAN BRESSLER ..... *Secondary Education*  
Ph.D., University of Nebraska, 1965; Associate Professor
- BARBARA BRILHART ..... *Secondary Education*  
Ph.D., Pennsylvania State University, 1966; Assistant Professor
- \*JOHN K. BRILHART ..... *Speech*  
Ph.D., Pennsylvania State University, 1962; Professor and Chairman of Department
- MERLE E. BROOKS ..... *Biology*  
Ph.D., University of Colorado, 1956; Professor
- WILLIAM M. BROWN ..... *Business Administration (Marketing)*  
Ph.D., University of Pittsburg, 1957; Professor

- BARBARA E. BUCHALTER ..... *Mathematics*  
Ph.D., University of Arizona, 1968; Assistant Professor
- SIDNEY BUCHANAN ..... *Art*  
M.A., New Mexico Highlands University, 1963; Assistant Professor
- CHARLES M. BULL ..... *Business Administration (Marketing)*  
Ph.D., University of Nebraska, 1962; The Frederick W. Kayser Professor of Marketing
- DALE M. BUNSEN ..... *Secondary Education*  
Ed.D., University of Nebraska, 1968; Associate Professor
- KENNETH BURKHOLDER ..... *Educational Administration*  
Ed.D., University of Nebraska, 1958; Professor
- KARL H. D. BUSCH ..... *Biology*  
Ph.D., Ohio State University, 1940; Professor
- ROBERT R. BUTLER ..... *Counseling and Guidance*  
Ph.D., University of Missouri, 1970; Assistant Professor
- WALTER M. CALINGER ..... *Experimentation and Development*  
Ph.D., Ohio State University, 1970; Assistant Professor
- H. CARL CAMP ..... *Political Science*  
Ph.D., Washington University, 1965; Associate Professor
- \*JO ANN CARRIGAN ..... *History*  
Ph.D., Louisiana State University, 1961; Professor
- \*ELTON S. CARTER ..... *Speech*  
Ph.D., Northwestern University, 1950; Professor and Dean, Graduate College; Chairman, Graduate Faculty; Ex officio member, Graduate Council, University of Nebraska System
- EDWIN L. CLARK ..... *Speech*  
Ph.D., State University of Iowa, 1951; Professor; Director, University Theater
- WILLIAM T. CLUTE ..... *Sociology*  
Ph.D., University of Minnesota, 1969; Assistant Professor
- JAMES J. CONWAY ..... *Business Administration (Statistics)*  
D.B.A., Texas Tech University, 1970; Professor
- ~~STEVEN G. COX ..... *Counseling and Guidance*  
Ph.D., University of Iowa, 1968; Assistant Professor~~
- \*HARRY J. CROCKETT, JR. .... *Sociology*  
Ph.D., University of Michigan; Graduate Lecturer
- \*DONALD CUSHENBERY ..... *Special Education (Reading)*  
Ed.D., University of Missouri, 1964; Professor; Director, Reading Clinic
- \*HARL A. DALSTROM ..... *History*  
Ph.D., University of Nebraska, 1965; Associate Professor
- \*KENNETH A. DEFFENBACHER ..... *Psychology*  
Ph.D., University of Washington, 1968; Assistant Professor
- BARTHALOMEW DENNEHY ..... *Engineering*  
Ph.D., Texas A. and M. University, 1970; Associate Professor; Director, Continuing Engineering Studies
- J. SCOTT DOWNING ..... *Mathematics*  
Ph.D., Michigan State University, 1969; Assistant Professor
- JOSEPH G. DUNN ..... *Educational Foundations*  
Ed.D., University of Missouri, 1955; Professor and Chairman of Department
- LAWRENCE E. EHLERS ..... *Engineering*  
Ph.D., Oklahoma State, 1969; Registered Professional Engineer; Associate Professor
- KENNETH ELLER ..... *Foreign Languages*  
Ph.D., University of Kansas, 1969; Assistant Professor

- \*ROBERT J. ELLINGSON ..... *Psychology*  
Ph.D., Northwestern University, 1950, M.D., University of Nebraska, 1963; Professor of Medical Psychology and of Physiology, College of Medicine (Joint Appointment)
- \*JOHN W. FLOCKEN ..... *Physics*  
Ph.D., University of Nebraska, 1969; Assistant Professor
- RICHARD B. FLYNN ..... *Secondary Education*  
M.Ed., Ohio University, 1965; Assistant Professor
- JOSEPH A. FREIVALD ..... *Mathematics*  
Ph.D., University of Oklahoma, 1969; Assistant Professor
- EUGENE FREUND ..... *Educational Foundations*  
Ph.D., Wayne State University, 1969; Associate Professor
- CRAIG FULLERTON ..... *Special Education*  
Ph.D., State University of Iowa, 1955; Graduate Lecturer
- DALE GAEDDERT ..... *History*  
Ph.D., Ohio State University, 1969; Assistant Professor
- WILLIAM L. GAINES ..... *History*  
Ph.D., Yale University, 1951; Professor and Dean, Academic Affairs
- MARGARET GESSAMAN ..... *Mathematics*  
Ph.D., Montana State College, 1966; Assistant Professor
- RICHARD GIBSON ..... *Civil Engineering*  
Ph.D., University of Colorado, 1969; Registered Professional Engineer; Professor
- G. WAYNE GLIDDEN ..... *Secondary Education*  
Ed.D., University of Nebraska, 1964; Professor
- DONALD J. GRANDGENETT ..... *Secondary Education*  
Ed.D., Arizona State University, 1967; Associate Professor
- RAYMOND A. GUENTHER ..... *Physics*  
Ph.D., Illinois Institute of Technology, 1969; Associate Professor
- ERT J. GUM ..... *History*  
Ph.D., Louisiana State University, 1963; Professor
- PAUL A. HAEDER ..... *Mathematics*  
Ph.D., Iowa State University, 1968; Professor and Chairman of Department
- \*NORMAN H. HAMM ..... *Psychology*  
Ph.D., Kent State University, 1968; Assistant Professor
- ROBERT D. HARPER ..... *English*  
Ph.D., University of Chicago, 1949; Professor
- GEORGE T. HARRIS ..... *Business Administration (Finance)*  
Ph.D., State University of Iowa, 1953; The Frederick W. Kayser Professor of Finance
- ROGER R. HARVEY ..... *Special Education*  
(Teaching the Mentally Retarded)  
Ph.D., East Texas State University, 1970; Assistant Professor
- GEORGE HEATHER ..... *Business Administration*  
Ph.D., State University of Iowa, 1946; Professor; Dean of the College of Business Administration
- \*SHELTON HENDRICKS ..... *Psychology*  
Ph.D., Tulane University, 1967; Assistant Professor
- ELAINE HESS ..... *Sociology*  
Ph.D., University of Nebraska, 1971; Assistant Professor
- WAYNE M. HIGLEY ..... *Business Administration*  
(Accounting and Quantitative Methods)  
Ph.D., University of Illinois, 1962, C.P.A., Professor

- \*JACK A. HILL ..... *Business Administration (Management)*  
Ph.D., University of Texas, 1964; Professor
- \*PETER W. HILL ..... *Art*  
M.F.A., Cranbrook Academy of Art, 1958; Professor and Chairman of Department
- ROGER HOBURG ..... *Chemistry*  
Ph.D., University of Nebraska, 1967; Assistant Professor
- WILLIAM C. HOCKETT ..... *Business Administration (Accounting)*  
M.B.A., University of Denver, 1949; C.P.A.; Professor
- LETA F. HOLLEY ..... *Business Education*  
Ed.D., University of Colorado, 1960; Professor Emeritus and Acting Chairman of Department
- JAMES Q. HOSSACK ..... *Civil Engineering*  
M.S. C.E., University of Nebraska, 1959; Registered Professional Engineer; Professor
- HELEN HOWELL ..... *Elementary Education*  
Ed.D., University of Colorado, 1969; Associate Professor
- FRANCIS M. HURST ..... *Psychology*  
Ed.D., Indiana University, 1954; Professor
- CHARLES O. INGHAM ..... *Biology*  
Ph.D., University of Utah, 1963; Associate Professor
- ROBERT INNES ..... *Psychology*  
Ph.D., University of Nebraska, 1967; Assistant Professor of Medical Psychology, College of Medicine (Joint Appointment)
- ORIGEN J. JAMES, JR. ..... *Business Administration (Accounting and Computers in Business)*  
D.B.A., Texas Tech University, 1969; Associate Professor
- HARL R. JARMIN ..... *Counseling and Guidance*  
Ph.D., University of Missouri, Kansas City, 1969; Assistant Professor
- DARRELL F. KELLAMS ..... *Educational Administration*  
Ed.D., University of Kansas, 1964; Associate Professor and Chairman of Department
- PAUL C. KENNEDY ..... *Educational Administration and Educational Foundations*  
Ed.D., University of Kansas, 1955; Professor and Dean, College of Education
- C. ROBERT KEPPEL ..... *Chemistry*  
Ph.D., Massachusetts Institute of Technology, 1959; Professor
- \*CLEMM KESSLER III ..... *Psychology*  
Ph.D., Western Reserve University, 1967; Assistant Professor
- WENDELL KINCAID ..... *Psychology*  
Ph.D., University of Connecticut, 1963; Assistant Professor of Child Health in Pediatrics, College of Medicine (Joint Appointment)
- RANDALL T. KLEMME ..... *Economics*  
Ph.D., Iowa State College, 1947; Graduate Lecturer
- RICHARD G. KOHLAN ..... *Psychology*  
Ph.D., University of Minnesota, 1966; Assistant Professor
- BERNARD D. KOLASA ..... *Political Science*  
Ph.D., University of Nebraska, 1969; Assistant Professor
- EDWARD La CROSSE ..... *Special Education (Teaching the Mentally Retarded)*  
Ed.D., Teachers College, Columbia University, 1964; Graduate Lecturer
- W. C. B. LAMBERT ..... *Political Science*  
Ph.D., Washington University, 1950; Professor

- RICHARD L. LANE ..... *English*  
Ph.D., University of Arkansas, 1968; Associate Professor
- JOSEPH C. LaVOIE ..... *Psychology*  
Ph.D., University of Wisconsin, 1970; Assistant Professor
- WILLIAM B. LEMAR ..... *Engineering*  
M.E., Yale University, 1947; Registered Professional Engineer; Associate Professor
- WALTER W. LINSTROMBERG ..... *Chemistry*  
Ph.D., University of Missouri, 1955; Professor
- WILFRED LOGAN ..... *Sociology*  
Ph.D., University of Michigan, 1959; Graduate Lecturer
- JOHN W. LUCAS ..... *Business Administration (Marketing)*  
M.B.A., Ohio State University, 1935; LL.D., University of Omaha, 1968; Professor; Dean Emeritus, College of Business Administration
- STEELE R. LUNT ..... *Biology*  
Ph.D., University of Utah, 1964; Associate Professor
- THOMAS MAJESKI ..... *Art*  
M.F.A., University of Iowa, 1963; Associate Professor
- JOHN P. MALONEY ..... *Mathematics*  
Ph.D., Georgetown University, 1965; Associate Professor
- DONALD D. MANSON ..... *Speech*  
Ph.D., Pennsylvania State University, 1966; Associate Professor
- D. N. MARQUARDT ..... *Chemistry*  
Ph.D., State University of Iowa, 1940; Professor and Chairman of Department
- KATHLEEN McKENNY ..... *Special Education (Deaf Education)*  
M.S., University of Wisconsin, 1965; Assistant Professor
- JOHN G. McMILLAN ..... *Physics*  
M.A., University of Nebraska, 1942; Professor and Chairman of Department
- \*ORVILLE D. MENARD ..... *Political Science*  
Ph.D., University of Nebraska, 1964; Associate Professor
- C. RAYMOND MILLIMET ..... *Psychology*  
Ph.D., Oklahoma State University, 1968; Assistant Professor
- JOYCE MINTTEER ..... *Business Administration (Communications)*  
Ph.D., Indiana University, 1967; Professor
- KAMEL M. MOGHRABI ..... *Business Administration (Management and Statistics)*  
Ph.D., Texas A.&M. University, 1966; D.B.A., Texas Tech University, 1970; Associate Professor
- W. EARL MORRISON ..... *Special Education (Teaching the Mentally Retarded)*  
Ph.D., East Texas State University, 1968; Associate Professor
- WOODROW L. MOST ..... *Foreign Language*  
Ph.D., Laval University, 1953; Professor and Chairman of Department
- KIRK E. NAYLOR ..... *Educational Administration*  
Ed.D., University of Kansas, 1952; Professor and President
- GLEN A. NEWKIRK ..... *English*  
Ph.D., University of Denver, 1966; Associate Professor
- \*M. GENE NEWPORT ..... *Business Administration (Management)*  
Ph.D., University of Illinois, 1963; Professor
- \*JOHN M. NEWTON ..... *Psychology*  
Ph.D., Ohio State University, 1955; Professor and Chairman of Department

- JOHN R. NYE ..... *Sociology*  
Ph.D., Iowa State University, 1968; Associate Professor
- B. GALE OLESON ..... *Counseling and Guidance*  
Ph.D., University of Wyoming, 1953; Professor; Director, Counseling and Guidance
- \*ROBERT C. O'REILLY ..... *Educational Administration*  
Ed.D., University of Kansas, 1962; Professor; Director of Institutional Research and Grants Coordinator
- RICHARD A. OVERFIELD ..... *History*  
Ph.D., University of Maryland, 1968; Associate Professor
- RUSSELL W. PALMER ..... *Religion*  
Ph.D., University of Iowa, 1966; Associate Professor
- \*D. T. PEDRINI ..... *Psychology*  
Ph.D., University of Texas, 1958; Professor
- JAMES B. PETERSON ..... *Music*  
Ph.D., State University of Iowa, 1953; Professor and Chairman of Department
- \*WILLIAM PETROWSKI ..... *History*  
Ph.D., University of Wisconsin, 1966; Associate Professor
- DONALD J. PFLASTERER ..... *Counseling and Guidance*  
M.Ed., University of Nebraska, 1952; Associate Professor; Dean of Student Personnel
- \*WILLIAM C. PRATT ..... *History*  
Ph.D., Emory University, 1969; Assistant Professor
- LEONARD PRESTWICH ..... *Marketing*  
Ph.D., Ohio State University, 1957; Professor; Director Retail Management Program
- \*PAUL V. PRIOR ..... *Biology*  
Ph.D., University of Iowa, 1950; Professor and Chairman of Department
- GEORGE R. RACHFORD ..... *Educational Administration*  
Ed.D., Indiana University, 1955; Professor
- EDITH RASMUSSEN ..... *Biology*  
Ph.D., Cornell University, 1941; Associate Professor
- M. N. REDDY ..... *Civil Engineering*  
Ph.D., Oklahoma State University, 1965; Associate Professor
- HAROLD J. RETALLICK ..... *Geography*  
Ph.D., Clark University, 1950; Professor
- \*HARRY W. REYNOLDS, JR. .... *Political Science*  
Ph.D., University of Pennsylvania, 1954; Professor
- \*ROY M. ROBBINS ..... *History*  
Ph.D., University of Wisconsin, 1929; Professor Emeritus
- \*WILLIS P. ROKES ..... *Business Administration (Business and Society)*  
J.D., University of Utah, 1951; Ph.D., Ohio State University, 1959; C.L.U.; C.P.C.U.; Professor
- GUENTER ROSE ..... *Psychology*  
Ph.D., University of California at Los Angeles, 1964; Associate Professor of Psychology and Physiology, College of Medicine (Joint Appointment)
- EDWARD J. SADLER ..... *Secondary Education*  
Ed.D., University of Nebraska, 1969; Associate Professor
- HARRY L. SASLOW ..... *Psychology*  
Ph.D., University of Pittsburgh, 1959; Associate Professor of Child Health (Pediatrics), College of Medicine (Joint Appointment)
- \*GORDON SCHILZ ..... *Geography*  
Ph.D., Clark University, 1948; Professor and Chairman of Department

- DAVID C. SCOTT ..... *Political Science*  
Ph.D., State University of Iowa, 1948; Professor and Chairman of Department
- JAMES W. SELEE ..... *Educational Experimentation and Development*  
Ed.D., University of Colorado, 1964; Associate Professor
- ROGER S. SHARPE ..... *Biology*  
Ph.D., University of Nebraska, 1968; Assistant Professor
- JOHN F. SHRODER ..... *Geography*  
Ph.D., University of Utah, 1967; Assistant Professor
- ROBERT B. SIMPSON ..... *Sociology*  
Ph.D., Washington University, 1970; Assistant Professor
- \*KEITH P. SMITH ..... *Mathematics*  
Ph.D., Iowa State University, 1966; Associate Professor
- W. ALAN SMITH ..... *Psychology*  
Ph.D., University of Missouri, 1970; Assistant Professor
- PAUL J. STAGEMAN ..... *Chemistry*  
Ph.D., University of Nebraska, 1963; Professor
- ELROY J. STEELE ..... *Economics*  
Ph.D., State University of Iowa, 1957; The Frederick W. Kayser Professor and Chairman of Department; Acting Director, Urban Affairs
- JACQUELINE D. ST. JOHN ..... *History*  
Ph.D., University of Oklahoma, 1969; Assistant Professor
- JUSTIN D. STOLEN ..... *Economics*  
Ph.D., University of Illinois, 1969; Assistant Professor
- DALE A. STOVER ..... *Religion*  
Ph.D., McGill University, 1967; Assistant Professor
- RICHARD STRANGES ..... *Counseling and Guidance*  
Ph.D., Ohio State University, 1969; Assistant Professor
- \*FRED STRIDER ..... *Psychology*  
Ph.D., University of Nebraska, 1961; Associate Professor of Medical Psychology College of Medicine (Joint Appointment)
- DAVID M. SUTHERLAND ..... *Biology*  
Ph.D., University of Washington, 1967; Assistant Professor
- GAYLORD H. TODD ..... *Foreign Languages*  
Ph.D., University of Minnesota, 1970; Associate Professor
- \*A. STANLEY TRICKETT ..... *History*  
Ph.D., The Victoria University of Manchester, England, 1935; Professor and Chairman of Department; Resigned as Chairman Effective August 31, 1971
- KEITH K. TURNER ..... *Economics*  
Ph.D., University of Nebraska, 1968; Associate Professor
- WILLIAM T. UTLEY ..... *Political Science*  
M.A., University of Arkansas, 1936; Professor; Director, Public Affairs Institute; Dean, College of Continuing Studies
- PHILIP H. VOGT ..... *Sociology*  
M.S., Washington University, 1936; Professor Emeritus
- PHILLIP E. VOGEL ..... *Geography*  
Ph.D., University of Nebraska, 1960; Professor
- BLAINE WARD ..... *Educational Foundations*  
Ed.D., University of South Dakota, 1969; Assistant Professor
- \*RALPH M. WARDLE ..... *English*  
Ph.D., Harvard University, 1940; The Albert H. Jefferis Professor
- \*FLOYD WATERMAN ..... *Educational Experimentation and Development*  
Ed.D., Columbia University, 1965; Professor; Director, Center for Urban Education



*WAYNE WHEELER	Sociology
Ph.D., University of Missouri, 1959; Professor	
RICHARD L. WIKOFF	Psychology
Ph.D., Oklahoma State University, 1965; Associate Professor	
JAMES WILLIAMS	Psychology
Ph.D., University of London, 1956; Professor of Psychophysiology in Psychiatry and Physiology, Research Professor of Surgery, College of Medicine (Joint Appointment)	
CHARLES M. WILSON	Educational Administration
Ed.D., University of Arkansas, 1969; Assistant Professor	
<del>*WOLF WOLFENBERGER</del>	<del>Special Education</del>
<del>Ph.D., George Peabody College for Teachers, 1962; Graduate Lecturer</del>	
JAMES M. WOOD	Special Education (Speech Pathology)
Ph.D., University of Utah, 1966; Associate Professor	
RAYMOND A. ZIEBARTH	Secondary Education
Ph.D., University of Minnesota, 1963; Professor and Chairman of Department	

\* Member, Graduate Faculty, University of Nebraska System

### Additional members:

Mark O. Rousseau, Sociology  
 Dr. John Farr, Political Science  
 Dr. Wilbur Rogers, Civil Engg  
 Mrs Lucille Zelinsky, Sociology  
 Dr. Wm. Blizak, Philosophy  
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### DEPARTMENTS OFFERING GRADUATE INSTRUCTION

Departments or areas which have been approved to offer courses for graduate credit and the degrees available in each department are as follows:

Department or Area	Minor Only	Master of Arts	Master of Science	Other
<b>Art</b>	x			
<b>Biology</b>		x	x	
<b>Business Administration</b>				MBA
<b>Chemistry</b>	x			
<b>Civil Engineering</b>			x	
<b>Economics</b>		x	x	
<b>Education</b>				
Educational Foundations	x			
Elementary Education		x	x	
Secondary Education		x	x	
Counseling and Guidance				
Agency Counseling		x	x	
Elementary Counseling		x	x	
Secondary Counseling		x	x	
College Student Personnel Services		x	x	
Special Education				
Reading			x	
Teaching the Deaf			x	
Teaching the Mentally Retarded		x	x	
Speech Pathology		x	x	
Educational Administration and Supervision				Ed.S.
Elementary Administration		x	x	
Secondary Administration		x	x	
Experimentation and Development				
Urban Education			x	
<b>English</b>		x		
<b>Foreign Languages</b>				
French	x			
German	x			
Spanish	x			
<b>Geography</b>		x	x	
<b>History</b>		x		
<b>Mathematics</b>		x	x	
<b>Physics</b>	x			
<b>Political Science</b>		x	x	MPA
<b>Psychology</b>		x		
Educational Psychology			x	
Industrial Psychology			x	
<b>Sociology</b>		x		
Applied Sociology			x	
<b>Speech</b>		x		

## EXAMINATIONS FOR GRADUATE STUDENTS

Graduate students are required to take either the Graduate Record Examination (GRE) (or ATGSB) *during their first semester of enrollment* in the Graduate College, unless they have taken it previously and have made the scores available to the Dean of the Graduate College. Neither examination is used to exclude admission at the Master's level.

These examinations, which require no special preparation or review, give valuable evidence of a student's qualifications for graduate work and are helpful in planning courses of graduate study. A nominal fee is charged for the examination. A student who has not taken the examination prior to his application for admission to the Graduate College but who is judged from other evidence to be capable of graduate study, is assigned provisional status. A final determination of classification will be made after the examination scores have been studied.

A Graduate College applicant already holding a Master's degree in the field in which he wishes to pursue further study and not enrolling into a degree program is not required to take the Graduate Record Examination.

All testing at UN-O in the three categories below is under the supervision of Dr. Gale Oleson, Director, Academic Testing Bureau. Registration deadlines and testing dates are available from the Office of the Academic Testing Bureau, Administration Building 213.

### Graduate Record Examination

(Both General Aptitude and Advanced Area Selection are Required)

Registration Deadlines	Testing Dates
March 24, 1971	April 24, 1971
May 19, 1971	June 19, 1971
September 23, 1971	October 23, 1971
November 11, 1971	December 11, 1971
December 15, 1971	January 15, 1972
January 26, 1972	February 26, 1972
March 22, 1972	April 22, 1972
May 16, 1972	June 17, 1972

### Admission Test For Graduate Study In Business

Applicants for admission to the Master of Business Administration program are required to take the Admission Test for Graduate Study in Business in lieu of the Graduate Record Examination.

### Foreign Language Requirement

The major department may require a candidate for the Master's degree to demonstrate by examination a satisfactory reading knowledge of one modern foreign language. Specific instructions regarding the language requirement may be obtained from the student's adviser.

## ACCREDITED STANDING

The University of Nebraska at Omaha is fully accredited by the North Central Association of College and Secondary Schools, the National Council for Accreditation of Teacher Education, American Association of Collegiate Schools of Business, and is a member of the National Commission of Accrediting (not an accrediting agency), the American Association of Colleges for Teacher Education, the Association of Urban Universities, the Association of American Colleges, the National University Extension Association, the American Association of University Women, the Council of Graduate Schools in the United States, the Midwest Conference on Graduate Study and Research, the Association of University Evening Colleges, the Adult Education Association of the United States, Association of Governing Boards, listed in the Directory of Colleges and Universities offering Graduate Reading Programs by International Reading Association, and the American Council on Education. Its courses are accepted, for purposes of teacher certification, by the Nebraska State Department of Public Instruction. The Chemistry Department is fully approved by the American Chemical Society.

Course credits from the University of Nebraska at Omaha are accepted by other colleges and universities which are members of the North Central Association and by other regional accrediting agencies.

## UNIVERSITY REGULATIONS

The University and its various colleges, divisions, and departments reserve the right to change the regulations controlling admission to, instruction in, and graduation from the University or its various divisions.

Such regulations are operative whenever the University authorities deem necessary and apply not only to prospective students but also to those currently enrolled in the University.

The University also reserves the right to withdraw courses, to reassign instructors, and to change tuition and fees at any time.

In the Graduate College, requirements may be made retroactive only for those students who do not maintain a continuity of enrollment. "Continuity" means that the student is enrolled in both semesters of every academic year or in at least one session every summer until all requirements for the degree have been satisfied.

## GRADUATE COLLEGE

Elton S. Carter, *Dean*

The first Master's degrees were awarded in 1919 by a special vote of the Board of Trustees of the "old" University of Omaha. In 1932, after the University became the Municipal University of Omaha, a Graduate Committee was organized to supervise graduate education. In 1942, the Graduate Committee was replaced by the Committee on Graduate Studies. The degree Master of Science in Education was approved in 1948. In 1954, the Committee on Graduate Studies became the Graduate Council and the Chairman became the Director of the Graduate Division. In 1960, the Board of Regents authorized a year of graduate study in education beyond the Master's degree. The Master of Business Administration was authorized in 1965 and the Master of Public Administration was authorized in 1970.

Recognizing the growing importance of graduate education, the term "Graduate Division" was authorized in 1949. In October, 1962, the Board of Regents established the College of Graduate Studies as the sixth college of the University of Omaha. In 1966, the name was changed to The Graduate College.

The Graduate College provides the opportunity for more advanced education than the undergraduate work upon which all graduate programs are founded.

The Graduate College at the University of Omaha\* was established to provide an opportunity for advanced study and independent investigation in a limited number of fields of learning for qualified students:

1. To work toward these degrees: Master of Arts, Master of Science, Master of Business Administration, Master of Public Administration, Specialist in Education.
2. To earn graduate credit for the issuance or renewal of certificates for teachers, administrators and educational psychologists.
3. To provide for scholarly and professional advancement.

To enable the student to attain these objectives, the Graduate College provides graduate courses, workshops, institutes, seminars, research and special problems courses, and the supervision of these or special projects. Thus the Graduate College promotes the spirit of free investigation in the various disciplines and, at the same time, serves to unite the various branches of the University in advancing human knowledge and providing intelligent, capable leadership for society.

\*Now the University of Nebraska at Omaha

## ADMINISTRATION

The Graduate Faculty prescribes the qualifications of all professors who offer graduate work and approves all courses which may be taken for graduate credit. The Dean of the College serves as Chairman of the Graduate Faculty.

"To be elected to the Graduate Faculty requires recommendation by the Department Head, the cognizant Dean and the Academic Standards and Curriculum Committee, and approval by the Dean of the Graduate College." The qualifications for membership are:

1. He has an earned doctorate or the equivalent; or, if a doctorate is not usual in the field in which he teaches, a terminal degree and special competence in the field being taught.
2. He has demonstrated ability in scholarly research or creative work.

3. He has one year of teaching experience at the college level (other than graduate assistantships or part-time instructing) or equivalent experience, plus research publication or creative production with evidence of peer acceptance, or  
He has two years of teaching experience at the college or university level (other than graduate assistantships or part-time instruction) or equivalent experience.
4. He holds a full-time appointment in the University System with faculty rank of assistant professor or higher, or is qualified as a graduate lecturer.

Graduate faculty members have the responsibility within their departments to design and revise courses for which graduate credit is offered. They counsel graduate students in major and minor fields and serve on graduate students' committees.

Approval to teach for persons who are not members of the UN-O Graduate Faculty may be secured by recommendation from the department head for approval on behalf of the faculty by the Graduate Dean.

## GRADUATE PROGRAM COMMITTEES

Each department (or area) offering a graduate degree has a *Graduate Program Committee* of at least three members. This committee and its chairman are chosen annually by the graduate faculty members of the department. In its department the Graduate Program Committee has the responsibility for the planning of the graduate program, the general supervising of the candidates for graduate degrees and the examining of students by means of the qualifying examination and the final comprehensive examination when these examinations are not given by a student's thesis or field project supervisory committee.

Each new graduate student, in conference with the chairman of the Graduate Program Committee of his major department, shall select his major adviser. For the student who has a supervisory or advisory committee, the composition of the committee shall be recommended to the Graduate Dean by the chairman of the student's Graduate Program Committee after consultation with the student and his major adviser. At the master's level, committees of three members are usually sufficient. The chairman should be a member of the Graduate Faculty and, whenever feasible, the student's adviser and thesis director. The representative from a department other than the major must be a member of the Graduate Faculty. In addition to at least three voting members, faculty members in the university system may be appointed to serve ex officio (without vote) as consultants (or to gain experiences as special representatives of the Graduate Dean). *The Graduate Program Committees* at UN-O represent both the Graduate Faculty and the student's field of study. The word *program* denotes all *kinds* of academic requirements which must be satisfied by the graduate student in order to qualify for a particular degree (or-in the case of a non-degree student—the requirements of graduate-level certification or recognized stages of professional development). *Every degree candidate's plan of study* must be designed to satisfy the requirements of a program which has been approved by the Graduate Faculty. Both major and minor requirements, together with quality-of-work standards, are included under programs; also included are transfer credits and those electives which are not major or minor courses.

Faculty members involved in graduate education, and in research (or any kind of further faculty development involving graduate students), should have ample opportunity to participate in decisions affecting these responsibilities. Provisions for appropriate participation by graduate students is equally important.

### GRADUATE ASSISTANTSHIPS

Available for qualified students who are enrolled in a graduate degree program are graduate assistantships in teaching, research or laboratory supervision. The assistant's assignment is designed to provide unexcelled opportunities for supervised educational experiences at the graduate level in conjunction with the degree program. The stipends range upward from \$2520. Approximately twenty hours of work per week is required. The enrollment of students with assistantships will be limited to no more than twelve credit hours per semester unless the student has demonstrated extraordinary efficiency and the adviser recommends the abnormally high work load to the Graduate Dean for his approval.

Graduate assistants or interns who must earn money for self-support may be required to reduce correspondingly the number of hours for which they may register. Such adjustments shall be subject to the approval of the Dean of the Graduate College.

Applications and their supporting credentials must be received on or before March 1. Address requests for information and application forms to the Chairman of the Department in which the assistantship is desired.

### SCHOLARSHIPS

Phi Delta Gamma, a national sorority for women, offers an annual scholarship of \$200 to a woman graduate student who has completed approximately half her graduate work with an excellent record. For applications and details concerning this scholarship, contact the Dean of the Graduate College. Applications should be in the Graduate Office by March 1 of each year to be considered for the following academic year. Loans are also available to qualified graduate students.

### ORGANIZATIONS

*Phi Delta Gamma* is a national sorority for graduate women in all fields. Membership is by invitation.

*Phi Delta Kappa* is a national fraternity for men who are graduate students in Education. Membership is by invitation.

*Beta Gamma Sigma* is a national honorary society for students in Business Administration. Membership is by invitation.

*Psi Chi* is a national honorary association for graduate students in Psychology. Membership is by invitation.

*Omicron Delta Epsilon* is a national honorary association for graduate students in Economics. Membership is by invitation.

### PROCEDURES AND REGULATIONS

#### Admission and Transcripts

The student admitted to graduate study is advised to familiarize himself with the academic regulations of the University and the Graduate College, and the student is expected to assume full responsibility for knowing the particular requirements of his own academic program. The

student is responsible for complying with all regulations of the University, the Graduate College, and the departments of instruction, and for meeting all requirements for his degree. The student should consult with his adviser whenever he has any question concerning the requirements for his degree.

New students should correspond with, or go directly to, the Director of Admissions in order to apply for admission. Each new student will be required to file with the Director of Admissions:

- (1) An application for graduate study at the University of Nebraska at Omaha.
- (2) *Present two (2) official transcripts of all undergraduate (and graduate, if any) college work previously taken.* Transcripts and all other materials submitted in support of an application become the permanent property of the University and will not be returned. (Graduates of the University of Nebraska at Omaha need not submit transcripts.)
- (3) Pay a transcript evaluation fee of \$5 at the Cashier's Office and have the receipt validated by the Director of Admissions. When applying by mail, enclose a check payable to the University for the transcript evaluation fee.

NOTE: For consideration for the Fall, Spring, First Summer term, or the Second Summer term, above credentials must be on file by August 1, December 19, May 12, or June 17 respectively.

- (4) Scores of the Graduate Record Examination or Admission Test for Graduate Study in Business should be filed in the Graduate Office.

Applications for admission, together with transcripts, must be filed not only by those students desiring to work for a degree, but also by students desiring graduate credit for a renewal of a teacher's certificate, for professional development, and for graduate credit to be transferred to some other school. (See Calendar for dates.)

Foreign students must provide letters of recommendation, statements of financial independence, and evidence of ability to speak and write the English language. The baccalaureate degree must have been received from an institution accredited by the proper accrediting agencies.

Admission to the Graduate College does not admit the student to candidacy for any graduate degree. (See "Admission to Candidacy for Graduate Degrees.")

### AUDIT

A student wishing to audit a course must secure the permission of his adviser, must register for the course to audit, and must secure the approval of the instructor of the course whose prerogative it will be to determine privileges including examinations connected with the course. An audit study may not change to credit registration after the first week of a course. (A credit student may change to audit registration during the first eight weeks of a semester, or during the first half of a class if it runs longer or shorter than a semester.)

### CLASSIFICATION OF ADMISSION

#### Unconditional

*Unconditional admission* to graduate study may be granted to a student who has a Bachelor's degree from a regionally accredited institution, who has earned at least a B average in the undergraduate work in his proposed graduate major and minor, and who presents at least 15 semester

hours of undergraduate work that meet specific requirements of the departments in his graduate major and minor. A student from an institution which is not regionally accredited will be admitted on the same basis as he would be admitted by the state university or reporting institution in that state. In such cases, further work may be required, or suitable examinations, or in some cases the completion of a Bachelor's degree in an accredited institution. In addition to the specified transcript record, appropriate scores of the Graduate Record Examination or the Admission Test for Graduate Study in Business must be supplied to the Graduate Dean.

#### Provisional

*Provisional admission* may be granted to a student who has a Bachelor's degree from a regionally accredited institution but who has not completed all of the undergraduate prerequisite course requirements for admission to the Graduate College. This provisional status will continue until such time as the student has completed all of the undergraduate prerequisites for graduate study.

Provisional admission may occasionally be granted to a student who has less than a B average in the undergraduate work in his proposed graduate major and minor, (but in no case less than a C average) upon recommendation of the department head of the major department (and minor if one is involved) and written approval by the Graduate Dean. This admission may be made for reasons of maturity, experience, or other extenuating circumstances under which the student may be deemed capable of high quality graduate study. This provisional admission will not be removed until the student has successfully demonstrated to the satisfaction of the Department and the Dean his ability to pursue graduate study.

A student may not apply for admission to candidacy for any degree until he has met the requirements of unconditional admission.

#### Non Degree

Some students who do not anticipate pursuing a degree program may be admitted to graduate study. Credentials for admission include a completed application blank and two undergraduate transcripts. Credit hours accumulated in this category could be counted toward a degree only if (a) the transition from non degree status is accomplished no later than the first opportunity to file candidacy for degree, and (b) the petition for change is accompanied by a departmental recommendation that the specified credit hours count toward the degree. For students desiring to change prior to completion of 9 credit hours, the Request to Change Graduate Degree Program form should be used; for those having completed 9 hours the Application for Admission to Candidacy form should be used.

*Acceptance of Senior credits:* Seniors in this University who are within fifteen hours of completing their undergraduate requirements and who have obtained in advance the approval of the Dean of the Graduate College may receive credit for graduate courses taken in addition to the courses necessary to complete their undergraduate work. With permission of the department or departments offering the courses, students may be permitted to enroll in 500-level courses during either semester of their senior year. However, courses taken during the senior year may be carried for graduate credit only if approved in advance by the Dean of the Graduate College.

Seniors in this University needing not more than six hours of undergraduate credit to complete the bachelor's degree may be granted provisional admission to the Graduate College subject to receiving their baccalaureate degrees at the end of the current semester. They must file application for admission to the Graduate College and, if admitted, will register on Graduate College Registration forms. Such registration may count as residence in the Graduate College.

#### Admission to Teacher Education Programs

Students who plan to work for the Master's degree with a major in one of the fields of education must hold a valid teaching certificate or be eligible for such a certificate at the undergraduate level before entering the program.

#### REGISTRATION PROCEDURE

The student is to follow the usual procedure in registering for courses by filling out the proper class cards and other registration blanks and by paying fees at the Business Office. At each registration period the student must secure the signature of his major adviser (and of the Dean of the Graduate College if he is registering for more than twelve hours with an assistantship or more than fifteen hours without an assistantship). Students must have been formally admitted to the Graduate College prior to their first registration.

Graduate students who are not working toward a degree are classified as non-degree students. This classification includes:

1. graduate students taking courses for teacher certification
2. graduate students taking courses for professional growth
3. graduate students taking courses for cultural advancement
4. graduate students taking courses for transfer to another institution.

#### CERTIFICATION OR PROFESSIONAL GROWTH

Students who wish to take courses for graduate credit to be used for teacher certification or professional growth must meet the same admission requirements as other graduate students. They must also make application for admission to the Graduate College. (See "Admission to Graduate College.")

#### ADMINISTRATIVE CERTIFICATE

Students who are preparing to meet the requirements for an Administrative or Supervisory Certificate must submit to the Office of the Dean of the College at the time of application, the names of two persons who can vouch for their personal and professional qualifications as a prospective school administrator.

#### ADMISSION TO CANDIDACY FOR GRADUATE DEGREE

Admission to the Graduate College does not admit the student to candidacy for any degree.

It is the student's responsibility to make application for candidacy for the degree *as soon as* he can qualify for admission to candidacy. The qualifications are: (1) the scores on the Graduate Record Examination (or the Admission Test for Graduate Study in Business, if applicable) must be on file in the Graduate Office; (2) nine hours of graduate credit must have been completed at this University; and (3) a grade average of "B", with no grade lower than "C."

As a rule, no degree can be awarded in the same semester as candidacy for the degree is approved.

Application forms should be filled out by the student—in consultation with his major and minor advisers—as soon as the student can qualify for admission to candidacy. Both the major and minor programs should be carefully and completely planned at this time and the application should be signed by both the major and minor advisers. The application form and the plan of study should be filed in the graduate office and copies should be provided for the major adviser, the minor adviser, and the student.

Plans of study should be planned with acceptable alternatives included. Once approved, any modification of a plan of study is permissible only upon recommendation of the major adviser if the major is concerned, the minor adviser if the minor is concerned, and the approval of the Dean of the Graduate College.

#### APPLICATION FOR THE DEGREE

The candidate for the degree must file an application for degree in the Registrar's Office in the semester or session in which the degree is to be granted. The graduation fees must be paid at the same time as the application is made. (See Calendar for date.)

#### THESIS

Except in one English program, all candidates for the Master of Arts degree are required to prepare a thesis under the direction of the major adviser supported by a committee. The thesis provides an opportunity for the student to obtain first-hand experience in research methods under competent direction. Up to six hours of credit is allowed for the thesis and the candidate must include the thesis as a course in his schedule during at least one semester. The thesis should be initiated at least eight months before the commencement in which the student plans to receive his degree.

Three typewritten copies of the thesis (two copies for the University Library and the student's personal copy), plus an additional copy if required by the department, must be approved by the major adviser and submitted to the Graduate Office in final form no later than the second week in November in the fall semester, the third week in March in the spring semester, or the second week of the first summer session. The first copy must be a typewritten copy on permanent bond paper of 20-pound weight. The other two copies should be on paper of at least 16-pound weight. Either pica or elite type may be used in typing. It is the responsibility of the student to be familiar with the "Instructions for the Preparation of Theses." A copy may be obtained in the Graduate College Office.

*Thesis Manual:* The responsibility for placing the thesis in final form rests with the student and his major adviser. All theses must be written in accordance with a standard thesis manual. The Graduate Faculty has approved an official manual for each department and the student will be advised by his major adviser of the standard form to be used.

The cost of binding three copies (see Fees) must be paid by the candidate at the time the thesis is submitted in final form to the Graduate Office. If the department conducting the thesis requires an additional copy, it is to be bound at the student's expense. The fees are payable in the Cashier's Office.

#### ORAL EXAMINATION ON THESIS

After the thesis has been delivered to the Graduate Office in final form, a committee will read the thesis and conduct the oral examination over the thesis and thesis field. This committee shall consist of members from the major department and at least one graduate faculty member from another department of the University. If the thesis examination is to be combined with the oral comprehensive (noted above), one-half the time may be devoted to the thesis and one-half to the graduate courses taken by the candidate.

Final comprehensive oral examinations must be taken at least 30 days before the convocation at which it is expected that the degree will be conferred.

Oral examinations may not be scheduled during the period between the close of the first term of the summer session and the beginning of the subsequent fall semester.

#### FINAL COMPREHENSIVE EXAMINATION

A final comprehensive examination is required of all candidates for the Master's degree near the conclusion of their graduate study.\* For those candidates not writing a thesis, the examination is a written one. For those candidates writing a thesis, the final comprehensive examination may be either written or oral. If written, it must be arranged at the convenience of the major adviser. If the comprehensive is to be oral, it should be arranged at the time of the oral examination over the thesis, at which time one-half of the examination may be devoted to the courses taken by the candidate and one-half to the thesis.

For the degree Master of Business Administration, the final comprehensive examination will be administered on dates corresponding to those for the M.S. degree.

If the course work has been of very high quality the minor adviser may suggest to the student's committee that the candidate be excused from the comprehensive examination covering the minor field. This does not prejudice the privilege of the minor professor giving a comprehensive, if he so desires. The minor comprehensive is given at a date arranged at the convenience of both the student and the minor adviser but falling within the limits established for all comprehensive examinations.

Students should register in the major department for the comprehensive examination at the time of their final enrollment. (Note: Students who plan degree program completion in August should register for the comprehensive in the preceding June.)

#### TIME LIMIT FOR ALL MASTER'S DEGREES

In evaluating credits earned toward an advanced degree, credits dating back five years or more are subject to reduction in value as determined by the Graduate Faculty. Once a student has been admitted to the Graduate College, he is expected to complete the requirements for the degree within a period of five years. Time spent in the military service of the United States may be excepted in the application of this rule.

#### QUALITY OF WORK

A "B" average must be maintained in all work taken as part of the requirements for the degree. A final grade of "C" in each of two courses in either the major or minor area will require action on the part of the

\* No comprehensive examination is required on one alternate program in English.

Graduate Dean before the student is allowed to count further work toward the degree. A grade of "C" in each of three courses will result in automatic dismissal from the degree program unless the student has a "B" average or higher.

A grade of "D" or below in either the major or minor area is considered a failing grade and the student receiving such a grade will automatically be dropped from the degree program. The student thus dropped may take course work as a non-degree student but may not be a candidate for a degree unless reinstated by the Academic Standards and Curriculum Committee when recommended by the Graduate Dean.

A student, upon consent of his adviser, may repeat a course in which he has previously received the grade of C, D, or F. Both grades will appear on the transcript but only the *second* grade will be counted in determining the grade point average.

**INC.**—The grade "I" is to be used by an instructor at the end of a term to designate incomplete work in a course. It should be used when a student, due to extenuating circumstances such as illness, military service, hardship, or death in the immediate family, is unable to complete the requirements of the course in the term in which he is registered for credit. Incompletes should only be given if the student has already substantially completed the major requirements of the course.

Each instructor must judge each situation. The instructor must also indicate by a departmental record, with a copy to the student, how the Incomplete is to be removed, and if he is at the University at the time of the removal, supervise the makeup work and report the permanent grade.

In the event that the instructor is not available at the time of the student's application for removal of an Incomplete, the department chairman shall supervise the removal of the Incomplete and turn in the permanent grade for the student.

A student to receive credit in a course for which he has received a grade "I" must re-register and take the course again unless he removes the Incomplete within two years from the date he received the "I": In the meantime the "I" is not computed in the student's GPA.

#### CLASS ATTENDANCE

Students are expected to attend all meetings of classes for which they are registered. In case of an unavoidable absence it is the student's responsibility to contact his instructor promptly and arrange to make up any work missed.

#### STUDY LOAD

An average study load for a full-time student is 12 hours of course work. The maximum load for anyone working full time on another job is six hours of course work.

#### COURSES FOR GRADUATE CREDIT

Courses which are available for graduate credit are those which have been especially approved by the Graduate Faculty with syllabi on file in the Graduate Office.

Courses numbered 500 and above are open only to graduate students. A limited number of upper-division courses are available for graduate credit but the graduate student is expected to do a higher level of work than the undergraduate students.

#### RESIDENCE REQUIREMENTS

A minimum of 30 semester credit hours in residence (36 in case of the Master of Science in Education and the Master of Business Administration degrees), is required for granting of the Master's degree, except as provision is made for the transfer of credit. No credit will be allowed for correspondence work.

#### TRANSFER OF CREDIT

Students who have completed graduate courses at other approved graduate schools (including extension schools) may petition to transfer as much as six hours of credit, provided the courses considered are pertinent to the student's graduate program. Courses for which transfer is requested must not have been used to satisfy the requirements for any previously awarded degree. Grades in courses for transfer of credit must be the equivalent of "B" or higher. No transfer of credit can be made until the student has been admitted to candidacy for the degree. All work accepted for transfer of credit must have been taken within the five-year period allowed for the Master's degree.

A student who has been approved as a candidate for the Master's degree may, with the prior recommendation of the major adviser and the approval of the Graduate Dean, earn transfer credit in other graduate schools to the limit of six semester hours in the Master of Arts and Master of Business Administration program and nine semester hours in the Master of Science in Education program. The total hours of transfer credit may not exceed the amount stated.

In the Educational Specialist degree, six semester hours of work beyond the Master's level may count as transfer credit, upon recommendation by the major adviser and with the approval of the Graduate Dean.

Students who wish to take graduate courses at the University of Nebraska at Lincoln or at the Medical Center for transfer to UNO should secure the Intercampus Graduate Student Exchange form from the Graduate College office. Transfer of graduate credit from all schools in the University system will be accepted to the extent approved by the student's committee with at least one-half of the minimum degree requirements to be taken at the UNL or UNO campus, whichever is to grant the degree. Only grades of "B" or better may be transferred from other schools in the University System to apply toward degree requirements here.

#### WITHDRAWAL FROM A COURSE OR FROM THE UNIVERSITY

A student who wishes to drop all classes and withdraw from the University proceeds as follows:

1. Obtain withdrawal slip from the Registrar's Office or his adviser.
2. Confer with his adviser and obtain his signature on the withdrawal card.
3. Confer with his Academic Dean and obtain his signature on the withdrawal card.
4. Report to the Office of the Dean of Student Personnel and turn in his activity and library cards.

Refunds will be based on the official schedule.

**Drop.**—When a student finds it necessary to drop a course, he should notify the Registrar and see his adviser immediately. If a student withdraws, his record will be marked "W" indicating that he withdrew.

A student may not drop a course with any grade other than "F" after the eighth week of the semester.

## REQUIRED PROCEDURE FOR GRADUATE STUDENTS

1. File two official transcripts of undergraduate credits (and graduate, if any) and an application for admission form with the Director of Admissions. You will be notified by mail of your admission to the college.
2. Arrange your class schedule with your adviser and have him sign your registration slip.
3. Arrange to take the Graduate Record Examination or the Admission Test for Graduate Study in Business in Room 213, Administration Building. If you have previously taken the examination, have the scores sent to the Graduate Office.
4. Apply for admission to candidacy for the degree in accord with the procedure described above.
5. In the semester or session in which the degree is to be conferred, the candidate must file his intention of taking the degree in the Office of the Registrar. (See Calendar for exact date.)
6. Arrange with your adviser *at least* three weeks in advance of administration for the Comprehensive Examination. This applies to all degree candidates whose work requires written comprehensives.
7. The thesis for the Master of Arts degree must be submitted in final form to the Graduate Office not later than the second week in November in the fall semester, the fourth week in March in the spring semester, or the second week of the first Summer Session. Thesis examinations may not be scheduled during the second Summer Session.
8. Master of Arts candidates must arrange for the Oral Examination to be given at least 30 days before the date of commencement. In the Summer Session, oral examinations must be completed before the close of the first term.
9. Order the cap and gown from the Book Store.
10. Attend Commencement unless excused by petition to the Graduate Dean at least two weeks in advance. A candidate who is excused from attendance at commencement must pay the "in absentia" fee.

## TUITION AND FEES

Student fees are payable in full at the time of registration. Registration is not complete until cleared by the cashier. **The University reserves the right to change the amount of tuition and fees at any time, or to assess breakage, deposit, lost property, or service fees not specifically listed in this schedule.**

Students in need of loans, deferred payments, or other financial assistance must consult the Student Aid Officer in room Adm. 240, *at least two weeks prior* to the start of classes.

## INSTRUCTION

Tuition, per semester credit hour:	
Undergraduate, Graduate or Audit	
Resident of Nebraska	\$15.00
Nonresident	28.00
Applied Music: Voice and all instruments except pipe organ (Fee may be waived by the Head of the Music Department)	
One semester credit hour—additional fee	40.00
Two semester credit hours (same instrument) add'l fee	60.00
Non-credit: 16 lessons	65.00
8 lessons	50.00
TV Classroom (per 3 hr. course—includes materials)	60.00
Conferences and Non-credit courses:	
Fees are determined for each offering on an individual basis.	

## GENERAL FEES

Full-time students (12 credit hours or more) per sem.	\$30.00
Part-time students (less than 12 hours) per sem.	15.00
Summer Sessions (per session)	15.00

General fees are assessed to every student each semester, except that summer session students who complete registration for both sessions at the initial registration period will be assessed the fee only once. Included in this fee are charges for registration, health service, library, and student center as well as materials and supplies furnished by the University for instruction.

The full-time fee of \$30.00 also entitles the student to a regular student activities card covering athletics, publications and general student activities. Part-time students may obtain a regular student activities card by paying an additional \$9.00 per semester.

## GRADUATION FEES

Graduate College	\$15.00
Baccalaureate Degree	12.50
Associate Title	7.50
Degree in absentia—additional	5.00

## OTHER FEES, CHARGES AND DEPOSITS

Matriculation	\$10.00
Payable upon initial enrollment	
Late Registration (Day or Evening Classes)	3.00
Deferred Payments (if approved by Student Aid Officer)	5.00
Change of Schedule—per change	5.00
Change of Academic Record—per change	5.00
Removal of incomplete, grade change, etc.	
Transcript Evaluation (transfer students and Graduate College)	5.00
Transcript of Academic Record—per copy	1.00
Teacher Placement Registration	6.00
Thesis Binding (additional copy—\$5.00)	15.00
Bad Check (insufficient or no-fund check) minimum	\$ 5.50
Insufficient fund or no-fund checks are considered to be deferred payments.	
Late registration fee may also be assessed if applicable.	
Replacement of Student Activity Card (with approval)	1.00
Tests and Examinations:	
Guidance and Placement—at scheduled times	5.00
Special, proficiency, advanced standing, or out of schedule	5.00
Vocational Testing and Counseling:	
Fees for these services depend upon tests administered and extent of counseling. Inquire in room Adm. 213 for charges.	

## REFUND SCHEDULE

Refunds are computed from the date application is received by the Registrar, NOT from date of withdrawal from classes. Refund slips issued by the Registrar and given to students are void and not redeemable, unless presented to the Cashier (room Adm. 150) within 30 days after date of issue.

A student must file notice of withdrawal from class, accompanied by written approval of the adviser and the Dean of Student Personnel, with the Registrar immediately upon dropping any course.



Students paying tuition and fees on a deferred payment basis or under any other loan, granted by the University, who withdraw before the account is paid in full are not relieved from payment of the balance due. Refunds will first be applied to unpaid balances, and any remaining balance must be paid in cash.

## REGULAR SEMESTER

Withdrawal before classes start .....	100%
Withdrawal during 1st or 2nd week .....	75%
Withdrawal during 3rd or 4th week .....	50%
Withdrawal during 4th to 8th week .....	25%
Withdrawal after 8th week .....	0%

## SUMMER SESSIONS (5 WEEK SESSION)

Withdrawal before classes start .....	100%
Withdrawal during 1st three days .....	75%
Withdrawal during remainder of the 1st week .....	50%
Withdrawal during 2nd week .....	25%
Withdrawal after 2nd week .....	0%

## CREDIT COURSES (8 WEEK SESSION)

Withdrawal before classes start .....	100%
Withdrawal during 1st week .....	75%
Withdrawal during 2nd week .....	50%
Withdrawal during 3rd week .....	25%
Withdrawal after 3rd week .....	0%

## NON-CREDIT AND SPECIAL COURSES

(10 weeks or more)

Withdrawal before classes start .....	100%
Withdrawal during 1st week .....	50%
Withdrawal during 2nd week .....	25%
Withdrawal after 2nd week .....	0%

(Less than 10 weeks)

Withdrawal before classes start .....	100%
Withdrawal before 2nd class .....	50%
Withdrawal after 2nd class .....	0%

## RESIDENT STUDENTS

A student's right to classification as a resident for purposes of registration in a state educational institution must be determined under the provisions of Nebraska Revised Statutes of 1943, Sec. 85-502 (R.S. Supp., 1965). (See General Catalog.) Any student who has been classified as a nonresident who believes he can qualify as a resident should contact the Registrar's Office.

## DEGREE PROGRAMS

The Master's degree or the Specialist in Education degree is conferred by the Board of Regents upon recommendation of the Graduate Faculty, and with the final approval of the faculty of the University of Nebraska at Omaha.

## Master of Arts Degree

The program for the Master of Arts degree will usually be arranged to conform to either of the following general patterns (English excepted):

- (1) A major of 24 semester hours in the major field of study.
- (2) A thesis not to exceed six semester hours in independent study under the direction of the major adviser.

OR:

- (1) A major of 15 semester hours in the major field of study.
- (2) A minor of nine semester hours in a related field of interest.
- (3) A thesis not to exceed six semester hours in independent study under the direction of the major adviser.

## Master of Science Degree

The Master of Science degree is typically a 36-hour, non-thesis program, consisting of certain required courses, cognate or related courses, and electives.

## Master of Business Administration Degree

This is a professional graduate degree designed to provide a broad educational experience for students who wish to assume positions of responsibility in business.

## Master of Public Administration Degree

This is a professional degree designed to provide broad educational experience for students who wish to assume positions of responsibility in government.

## Specialist in Education Degree

The Specialist in Education degree (Ed.S.) is an advanced degree, involving a minimum of one year of study beyond the Master's degree. It is designed to offer additional study for professional educators.

## COURSE DESCRIPTIONS

## Key to Symbols:

- I—offered in the first semester of each year
- II—offered in the second semester of each year
- S—offered in the summer session

Courses numbered 500 or above are open to graduate students only. Some courses numbered 400 are open to both seniors and graduates; the same is true of a selected few 300 numbered courses. It is expected as a rule that graduate students enrolled in those courses numbered 300-400 will do work of a higher level than undergraduates. Typically, such differentiation might include depth studies, field studies, individualized research, and special interest projects.

## ART (ART)

## Graduate Faculty Members:

Professors John V. Blackwell, Peter W. Hill (Chairman);  
Associate Professor Thomas Majeski;  
Assistant Professor Sidney Buchanan

Graduate art courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

## Course Descriptions

- 431 **Advanced Sculpture** ..... 3 hours  
PREREQ: Art 331 and permission  
Advanced work in area of student's choice, with facilities for oxy-acetylene, arc welding, and general metal working.
- 441 **Advanced Painting** ..... 3 hours  
PREREQ: Art 341 and permission  
Practical instruction in oil painting and related medias. The course gives the student the time and environment to work and develop individually. A strong emphasis is placed on a complete knowledge of contemporary art.
- 451 **Advanced Printmaking** ..... 3 hours  
Intaglio process stressing technical proficiency in the various media.
- 461 **Advanced Ceramics** ..... 3 hours  
PREREQ: Art 361 and permission  
Advanced problems in the techniques of ceramics.
- 531 **Graduate Sculpture** ..... 3 hours  
PREREQ: Art 431 and permission  
Advanced problems in a particular sculpture media.
- 541 **Graduate Painting** ..... 3 hours  
PREREQ: Permission and 12 credit hours of painting  
More complex problems in the oil medium and related material.
- 551 **Graduate Printmaking** ..... 3 hours  
PREREQ: Art 451 and permission  
Advanced problems in the printmaking area with particular attention to the intaglio technique.

## BIOLOGY (BIOL)

## Graduate Faculty Members:

Professors Merle E. Brooks, Karl H. D. Busch, Paul V. Prior (Chairman);  
Associate Professors Charles O. Ingham, Steele R. Lunt, Edith Rasmussen;  
Assistant Professors Roger S. Sharpe, David M. Sutherland.

## Master of Arts

To enter the program for the Master of Arts degree in biology the student must present approximately 24 semester hours credit in the biological sciences including general botany, general zoology, and genetics plus adequate preparation in the supporting sciences of inorganic and organic chemistry, general physics, and mathematics. Students with inadequate backgrounds may be admitted provisionally.

To complete the degree, the student must present 30 hours of graduate work in biology to include credit in thesis (a maximum of 6 hours), a minimum of 2 hours in seminar, and at least 22 hours of appropriate courses to be determined by the student and his faculty committee. Present research interests of faculty members include anatomy, animal behavior, animal physiology, aquatic biology, bryology, ecology, embryology, entomology, histology, invertebrate zoology, ornithology, plant anatomy, plant morphology, plant physiology, and plant taxonomy.

## Master of Science

To enter the program for the Master of Science degree in biology the student must present approximately 24 semester hours credit in the biological sciences including general botany, general zoology, and genetics plus adequate preparation in the supporting sciences of inorganic and organic chemistry, general physics, and mathematics. Students with inadequate backgrounds may be admitted provisionally.

To complete the degree, the student must present 36 hours of graduate work in biology to include at least one research course, a minimum of 2 hours in seminar, and other appropriate courses to be determined by the student and his faculty committee.

## Course Descriptions

- 334 **Ecology** .....(I,S) 4 hours  
PREREQ: Biology 145, 175  
The study of the behavior of whole organisms and groups of organisms in relation to their total living and non-living environment.
- 344 **Morphology of Lower Plants** .....(I) 4 hours  
PREREQ: Biology 145  
A lecture and laboratory course which covers the ecology, morphology, and evolutionary trends of algae, fungi, and bryophytes.
- 353 **Flora of the Great Plains** .....(I,S) 3 hours  
PREREQ: Biology 145  
The classification, identification, and recognition of common vascular plants, including weeds, ornamentals, and indigenous plants, found in the Great Plains.
- 354 **Morphology of Higher Plants** .....(II) 4 hours  
PREREQ: Biology 145  
A lecture and laboratory course covering the living and fossil vascular plants with emphasis on morphology, ecology, and evolutionary trends.
- 363 **Plant Anatomy** .....(I) 3 hours  
PREREQ: Biology 145  
A study of cells, tissues, and organs of vascular plants with particular emphasis on internal structure of seed plants.
- 373 **Fauna of the Great Plains** .....(II,S) 3 hours  
PREREQ: Biology 145, 175  
A survey of the common animal groups found in the Great Plains, including their evolution, ecology, distribution and specific adaptations to the environment of the temperate North American grasslands.
- 374 **Histology** .....(II) 4 hours  
PREREQ: Biology 175, and a course in vertebrate anatomy, or permission of instructor  
Analysis of the microscopic anatomy of tissues and organs, their adaptations and functional significance.
- 384 **Embryology** .....(II) 4 hours  
PREREQ: Biology 175 and a course in vertebrate anatomy  
An intensive study of the embryology and development of the vertebrate animal, particularly the human, from gametogenesis through organogenesis as revealed by a study of selected vertebrate embryos and fetuses.
- 414 **Cellular Biology** .....(I) 4 hours  
PREREQ: Biology 145 and 175, organic chemistry, or permission of the instructor  
This course is a comprehensive study of the structure and function of plant and animal cells.
- 418 **Limnology** .....(II,S) 4 hours  
PREREQ: Biology 145, 175, and organic chemistry  
A study of the physical, chemical, and biotic relationships that serve to establish and maintain plant and animal communities in a fresh water environment.
- 423 **Organic Evolution** .....(II) 3 hours  
PREREQ: Biology 214, Lecture and discussion only  
A study of organic evolution in terms of evidences which support the theory and the mechanisms involved in the process.

- 427 **Animal Behavior** (same as Psychology 427).....(I,II) 3 hours  
PREREQ: Biology 175 or Psychology 101 or permission. Lecture only.  
Behavior of diverse animals for the understanding of the relationships between nervous integration and the behavior manifested by the organism, as well as the evolution and adaptive significance of behavior as a functional unit.
- 433 **Bryology** .....(I) 3 hours  
PREREQ: Biology 344 or permission of the instructor  
A course in the identification, classification, ecology, and distribution of bryophytes.
- 444 **Plant Physiology** .....(II) 4 hours  
PREREQ: Biology 145, organic chemistry, or permission of the instructor  
A study of plant processes and functions with emphasis on photosynthesis, growth and development, metabolism, and mineral nutrition.
- 454 **Taxonomy of Vascular Plants** .....(II) 4 hours  
PREREQ: Biology 145  
Classification of vascular plants with particular emphasis on the evolution and adaptations of selected families with discussion of experimental techniques used by the taxonomist.
- 464 **General Bacteriology** .....(I) 4 hours  
PREREQ: Biology 145, Chemistry 214 or 102  
The nature of microorganisms, their life processes, their biological and economical significance.
- 473 **Endocrinology** .....(II) 3 hours  
PREREQ: Organic Chemistry, Vertebrate Anatomy, and Physiology or permission of the instructor  
A survey of endocrine physiology stressing the regulative and integrative roles of hormones, the control of hormone secretion, and mechanisms of hormone action.
- 474 **Animal Physiology** .....(I) 4 hours  
PREREQ: Biology 175, vertebrate anatomy, organic chemistry, and physics, or permission of instructor  
A comprehensive study of animal function emphasizing mechanisms of regulation and control.
- 478 **Vertebrate Zoology** .....(I) 4 hours  
PREREQ: Biology 175  
A study of the general biology of the subphylum Vertebrata including the morphology, anatomy, physiology, and ecology of vertebrate representatives.
- 484 **Parasitology** .....(II) 4 hours  
PREREQ: Biology 175  
Taxonomy, morphology, life history, dissemination, and control of the parasitic protozoans, helminths, and arthropods.
- 488 **Invertebrate Zoology** .....(II) 4 hours  
PREREQ: Biology 175  
A study of the morphology, anatomy, physiology, biochemistry, genetics, evolution, taxonomy, ecology, natural history, and behavior of the invertebrate animals.
- 494 **Entomology** .....(II) 4 hours  
PREREQ: Biology 175  
The study of insects, their classification, morphology, physiology, behavior, life histories, ecology, and evolution.
- 498 **Ornithology** .....(II,S) 4 hours  
PREREQ: Biology 175  
An introduction to the general biology of birds, including their anatomy, physiology, behavior, ecology, classification, and identification with emphasis on North American groups.
- 501 **Seminar in Biology** .....(I,II,S) 1 hour  
A study of current research in any of the divisions of biology. Graduate students in biology must complete this course twice for credit.
- 502 **Problems in Biology** .....(I,II,S) 2 hours  
PREREQ: Sufficient work in biology and the ancillary sciences necessary to pursue adequately the area of investigation involved  
Research investigation in various areas of biology.

- 516 **Experimental Genetics** .....(II) 3 hours  
PREREQ: Biology 214  
Lecture and laboratory involving experimentation with organisms such as *Drosophila* spp., *Neurospora* spp., *E. Coli* and T4 phage.
- 573 **Environmental Physiology** .....(I) 3 hours  
PREREQ: General Physics, Algebra, Animal Physiology, or permission of the instructor. Lecture only.  
A detailed study of selected dynamic environmental factors and mechanisms of physiologic adaptation by organisms of various taxa.
- 601-  
602 **Thesis** .....(I,II,S) 3 hours  
Independent research project written under the supervision of a faculty committee.

### BUSINESS ADMINISTRATION (BA)

#### Graduate Faculty:

Professors William M. Brown, Charles M. Bull, James J. Conway, George T. Harris, George Heather (Chairman), Wayne M. Higley, Jack A. Hill, William C. Hockett, John W. Lucas (Emeritus), Joyce Minter, M. Gene Newport, Leonard Prestwich, Willis P. Rokes; Associate Professors Robert W. Benecke, Origen J. James, Kamel M. Moghrabi

#### The Master of Business Administration Degree

The M.B.A. is a professional graduate degree designed to provide a broad educational experience for students who wish to assume positions of responsibility in business.

Courses in the program give the students an understanding of the principles of management, marketing and finance and a proficiency in the use of accounting, computers, and statistics as tools for analysis of business activities. At the same time the student becomes aware of the societal, economic, legal, and political factors which influence business decisions and develops an appreciation of the social responsibilities of business.

Emphasis is placed on decision making and problem solving.

Foundation core: A student should have completed basic courses in the following areas before enrolling in certain courses required for the graduate degree. Special graduate courses are available to students to remove deficiencies in the foundation core.

Economics (Micro)	Corporation Finance
Economics (Macro)	Statistics
Accounting (2 courses)	Business Law, or
Marketing	Legal Environment of Business
Management	

The Admission Test for Graduate Study in Business is required. The test preferably should be taken prior to admission, but it must be taken not later than the end of the first semester of graduate work.

Degree Requirements: The degree requires a minimum of 36 semester hours for completion. Of these, 27 must be in the following required courses:

Econ. 521	Micro-Economic Theory	3 hours
Econ. 523	Macro-Economic Theory	3 hours
BA 540	Marketing Policies	3 hours
BA 530	The Environment of Management	3 hours
BA 550	Financial Management	3 hours
BA 520	Accounting for Management Control	3 hours
	or	
BA 521	Contemporary Accounting	3 hours
BA 500	Quantitative Analysis	3 hours
BA 501	Business and Society	3 hours
BA 531	Human Relations	3 hours

Emphasis in specific areas can be achieved by selection of nine hours of approved electives, three hours of which may be outside of business administration. Elective courses include the following:

BA 525 Seminar in Accounting	3 hours
BA 535 Seminar in Management	3 hours
BA 541 Promotional Policies	3 hours
BA 545 Seminar in Marketing	3 hours
BA 551 Security Analysis	3 hours
BA 552 Seminar in Investment Management	3 hours
BA 555 Seminar in Finance	3 hours
BA 590 Independent Research	3 hours

A thesis is not required for the degree. A written comprehensive final examination will be required when the student has completed his course work or is in his final semester.

### Course Descriptions

500 Quantitative Analysis	3 hours
PREREQ: BA 313 or BA 516	
The study of quantitative techniques and models and their application in business decision making.	
501 Business and Society	3 hours
Exploration of the diversity of societal forces and pressures which produce continued transition in the system of American capitalism.	
511 Accounting for Control and Decisions	3 hours
This course is for the graduate student who has not taken accounting principles at the undergraduate level.	
The uses of accounting for purposes of control and decisions by managers, shareowners, creditors and others.	
512 The Legal Environment of Business	3 hours
Examination of the business institution as it exists within a legal system shaped by societal elements.	
513 Business Finance	3 hours
PREREQ: ACC 201 and ACC 202; or BA 511; and Econ. 201 and Econ. 202; or Econ. 500	
The process of financing business from the viewpoint of management in planning, directing, evaluating, and taking remedial action in providing for the financial needs of the business firm.	
514 Operations Management	3 hours
PREREQ: Econ. 201 and 202; or Econ. 500	
A comprehensive study of the management process with particular emphasis given to the production, human, and organizational problems of industrial operations.	
515 Marketing Foundations	3 hours
PREREQ: Econ. 201 and Econ. 202; or Econ. 500. No previous marketing principles.	
This course will provide the student with a sound understanding of marketing institutions, functions, economic role, and administration. It will prepare the student for advanced work in marketing policies and research.	
516 Statistics for Business Decisions	3 hours
PREREQ: BA 212 or College Algebra	
Techniques of analysis and interpretation of quantitative business data; descriptive measures, statistical inference, correlation and time-series.	
520 Accounting for Management Control	3 hours
PREREQ: ACC 201 and ACC 202; or BA 511	
Emphasis on maximum utilization of accounting information by the management team.	
521 Contemporary Accounting	3 hours
PREREQ: BA 520	
A penetrating study of accounting areas in which uniformity is not present.	
525 Seminar in Accounting	3 hours
PREREQ: BA 520 or BA 521	
A study of problem areas which may be independent or interrelated in public, private and governmental accounting.	

530 The Environment of Management	3 hours
PREREQ: MGT 349 or BA 514	
A classical and behavioral study of the organizational environment in which decision-making occurs to accomplish the economic and efficient operation of organized endeavor.	
531 Human Relations	3 hours
PREREQ: BA 349 or BA 514	
An inter-disciplinary study concerned with the problems of combining and utilizing human resources to satisfy the objectives of management and workers.	
535 Seminar in Management	3 hours
PREREQ: BA 530 and BA 531	
A student participation course emphasizing current issues and problems in the areas of management theory and operation.	
539 Executive Development Program for Medical Clinic Managers	3 hours
A seminar combined with workshop sessions covering problems associated with the management of medical clinics.	
540 Marketing Policies	3 hours
PREREQ: MKT 331 or BA 515	
A marketing management approach to the determination of policies employed in solving problems in marketing.	
541 Promotional Policies	3 hours
PREREQ: MKT 331 or BA 515	
Analysis of the methods and policies needed to develop and administer an effective promotional program.	
545 Seminar in Marketing	3 hours
PREREQ: BA 540	
Exploration, study and critical analysis of contemporary marketing problems, trends, methods and approaches for seminar discussion and written report.	
550 Financial Management	3 hours
PREREQ: FIN 325 or BA 513	
Examines the problems of managing the financial operations of an enterprise with emphasis on analysis and solution of long and short-term problems pertaining to policy decisions.	
551 Security Analysis	3 hours
PREREQ: FIN 325 or BA 513	
A study in the techniques of analysis of marketable securities. Statistical and financial ratio methods of analysis are examined as well as broader bases for appraisal of values of securities.	
552 Seminar in Investment Management	3 hours
PREREQ: FIN 325 or BA 513	
The theory of investment management and its application in formulation of policies for different types of investors.	
555 Seminar in Finance	3 hours
PREREQ: BA 550	
Selected topics from areas of business finance.	
590 Independent Research	3 hours
Individual research in the field of accounting, finance, management, marketing, quantitative analysis or the environment of business. Maximum of nine hours in three different fields.	

### CHEMISTRY (CHEM)

Graduate Faculty Members:

Professors C. Robert Keppel, Walter W. Linstromberg, D. N. Marquardt (Chairman), Paul J. Stageman;

Assistant Professor Roger Hoburg

Graduate chemistry courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

### Course Descriptions

335 Physical Chemistry	(I) 3 hours
PREREQ: Chemistry 226, 226L, 240, 240L; Physics 212; Math 196	
A presentation of selected topics from the areas of quantum mechanics, classical thermodynamics, statistical mechanics.	

- 335L **Physical Chemistry Laboratory** ..... (I) 1 hour  
PREREQ: Chemistry 226, 226L, 240, 240L; Physics 212; Math 196  
Chemistry 335L should be taken concurrently with Chemistry 335.
- 336 **Physical Chemistry** ..... (II) 3 hours  
A presentation of selected topics from the areas of classical thermodynamics, statistical mechanics and chemical kinetics.
- 336L **Physical Chemistry Laboratory** ..... (II) 1 hour  
Chemistry 336L should be taken concurrently with Chemistry 336.
- 340 **Instrumental Analysis** ..... (II) 2 hours  
PREREQ: Chemistry 336 (may be taken concurrently.)  
Instrumental methods of quantitative analysis. Normally taken concurrently with Chemistry 340L.
- 340L **Instrumental Analysis Laboratory** ..... (II) 2 hours  
PREREQ: Chemistry 340 (may be taken concurrently)  
Laboratory to accompany Chemistry 340. Normally taken concurrently with Chemistry 340.
- 423 **Advanced Organic Chemistry** ..... (I) 3 hours  
PREREQ: Chemistry 226, 336  
An advanced lecture course in modern theories and special topics in organic chemistry.
- 424 **Advanced Organic Chemistry** ..... (II) 3 hours  
PREREQ: Chemistry 226, 336  
An advanced lecture course in Organic Chemical Reactions.
- 450 **Advanced Inorganic Chemistry** ..... (I) 3 hours  
PREREQ: Chemistry 336 (may be taken concurrently)  
Theories of chemical bonding, the determination of chemical structures, and the application of modern chemical theory to classical and recent problems in inorganic chemistry.
- 451 **Advanced Inorganic Preparations** ..... (I,II) 1-2 hours  
PREREQ: Chemistry 450 (may be taken concurrently)  
Laboratory preparation of representative types of inorganic compounds by various standard and special experimental techniques.
- 465 **Biochemistry** ..... (I) 3 hours  
PREREQ: Chemistry 226, 226L and 336, 336L  
Chemistry and biochemistry of protein, carbohydrates and lipids. Enzymes and energetics. Biological oxidation. Not open to students with credits in 365 or 366. Chemistry 465L must be taken concurrently with Chemistry 465.
- 465L **Biochemistry Laboratory** ..... (I) 1 hour  
Biochemistry Laboratory for Chemistry 465. Chemistry 465 and 465L must be taken concurrently.
- 466 **Biochemistry** ..... (II) 3 hours  
PREREQ: Chemistry 465, 465L  
Continuation of Chemistry 465. Chemistry 466L must be taken concurrently with 466.
- 466L **Biochemistry Laboratory** ..... (II) 1 hour  
PREREQ: Chemistry 465, 465L  
Biochemistry laboratory for Chemistry 466.
- 499 **Chemistry Problems** ..... (I,II) 1-3 hours  
PREREQ: Permission of instructor  
Independent student research.
- 599 **Research in Chemistry** ..... Arranged  
PREREQ: Permission of the instructor, graduate standing and an undergraduate chemistry major (not less than 32 hours).  
Provides the student with an opportunity for experience in the solving of an actual research problem in the field of chemistry.

### CIVIL ENGINEERING (C.E.)

#### Graduate Faculty Members:

Professors Richard Gibson, James Q. Hossack  
Associate Professors Joseph V. Benak, Bart Dennehy, Lawrence E. Ehlers, William B. LeMar, M. N. Reddy.

### Master of Science

This is a professional graduate degree designed to provide a broad educational background for students who wish to gain greater proficiency and assume positions of greater responsibility in the field of Civil Engineering.

Courses in the program give students a better understanding of the basic principles and methodology used in the design of civil engineering projects.

Emphasis is placed on Systems Analysis, Decision Making, and Problem Solving.

*Foundation Courses:* Applicants for admission to the M.S. degree program in Civil Engineering must have completed the following foundation courses with a satisfactory grade:

Fluid Mechanics	Structural Design
Soil Mechanics	Advanced Math for Engineers (or Differential Equations)
Structural Analysis	Engineering Systems Analysis

A student who is deficient in any of the foundation courses will be required to make up the deficiency with appropriate courses.

*Degree Requirements:* The degree requires a minimum of 36 semester hours for completion. A minimum of one-half of the required hours must be taken at the 500 level. Nine semester hours may be in a related minor field, such as business administration, mathematics, physics, chemistry, and biology.

A student may elect to submit a thesis for a maximum of six semester hours which is applicable toward the degree requirements. A comprehensive final examination, both written and oral, will be required when the student has completed his course work or is in his final semester.

### Course Descriptions

#### Civil Engineering

- 432 **Hydraulic Engineering** ..... 3 hours  
PREREQ: GE 331  
Open channel flow; energy and momentum principles of flow; critical uniform, and unsteady flow; flow resistance; uniform and irregular channels; channel controls and transitions.
- 433 **Hydrology** ..... 3 hours  
PREREQ: GE 331  
The hydrologic cycle, precipitation, infiltration and soil moisture, runoff, rainfall-runoff relationships, factors affect, the utilization and conservation of water resources.
- 434 **Ground Water Hydrology I** ..... 3 hours  
PREREQ: GE 331  
The occurrence, distribution, and movement of ground water; formulation and solution of differential equations pertaining to boundary conditions of steady and unsteady state.
- 442 **Construction Management** ..... 3 hours  
PREREQ: Permission  
Estimating and bidding, scheduling (CPM, PERT), contracts, bonds and insurance, cost control systems, equipment utilization, codes and zoning.
- 444 **Structural Analysis III** ..... 3 hours  
PREREQ: CE 344  
Analytic methods in the design of industrial buildings, tall buildings and space frames.

450	<b>Soil Mechanics II</b> .....	3 hours
	PREREQ: CE 449 or equivalent Complex problems in soil mechanics; the interrelationship of theory, sampling and testing; performance studies.	
465	<b>Construction Cost and Controls</b> .....	3 hours
	PREREQ: Permission Construction estimating, accounting, cost control; construction scheduling, computer applications.	
467	<b>Form Design and Steel Erection</b> .....	2 hours
	PREREQ: CE 360 Design of concrete forms; design of temporary structures for steel erection.	
470	<b>Prestressed Concrete</b> .....	3 hours
	PREREQ: CE 360 Design of prestressed members, continuous beams, slabs, and circular prestressing. Load factors. ACI code.	
473	<b>Matrix Methods of Structural Analysis</b> .....	3 hours
	PREREQ: CE 344 Computer applications for beams, frames, trusses, grids, and space forms using flexibility and stiffness methods.	
481	<b>Plastic Analysis</b> .....	3 hours
	PREREQ: CE 344 Plastic collapse. Upper and lower bound theorem. Analysis of beams and frames. Deflection. Secondary design problems. Repeated Loading.	
500	<b>Structural Design for Dynamic Loads</b> .....	3 hours
	PREREQ: Graduate standing and permission Behavior of structural materials and systems under dynamic loads. Analysis and design for dynamic loads. Computational techniques.	
501	<b>Special Engineering Problems</b> .....	1-6 hours
	PREREQ: Graduate standing and permission The theory and application of the accumulative knowledge from undergraduate and graduate course work to a special problem of particular interest to the student and in his field of interest. These problems should extend the knowledge and understanding of the student in the field of his specialty beyond the limits of his formal course work. The problems will be agreed upon by the faculty member and the student involved. The problem will be at a level to warrant graduate credit.	
502	<b>Thin Shell Structures</b> .....	3 hours
	PREREQ: Graduate standing and permission General theory of thin shells: analysis and design of hyperbolic paraboloids, folded plates, cylindrical shells, shell walls, and domes.	
503	<b>Foundation Engineering</b> .....	3-6 hours
	PREREQ: Graduate standing and permission of instructor Evaluation of subsoil conditions as they affect the behavior, proportions, and selection of foundation elements; character of natural soil deposits; bearing capacity and settlement analysis; seepage problems; stability of slopes and earth-retaining structures.	
514	<b>Bridge Design</b> .....	3-9 hours
	PREREQ: CE 470, Permission The theory and design of slab, T-beam, box girder, prestressed, welded girder, composite, orthotropic and suspension bridges.	
515	<b>Advanced Hydraulics</b> .....	3 hours
	PREREQ: Graduate standing and permission Advanced studies in hydraulics including hydrometry, similitude, urban hydrology, geohydrology, hydraulic transients, and loose boundary hydraulics.	
516	<b>Advanced Structural Engineering</b> .....	1-12 hours
	PREREQ: Graduate standing and permission Contemporary developments in the analysis and design of space-spanning and space-enclosing structures, including appropriate mathematical and mechanical methods of analysis.	
517	<b>Advanced Sanitary Engineering</b> .....	3-6 hours
	PREREQ: Six hours of undergraduate-level courses in Sanitary Engr. Advanced study of biological and chemical processes in sanitary engineering; activated sludge and trickling filter processes; anaerobic digestion; ion exchange and electro dialysis; wet and dry combustion; introduction to industrial waste treatment processes; and special problems in unit processes of waste treatment.	

599	<b>Civil Engineering Special Projects</b> .....	1-6 hours
	PREREQ: Graduate standing and permission Individual students may select a special semester project in some phase of civil engineering which requires advanced original thinking and the application of advanced analytical and/or experimental techniques in its completion.	
601)	<b>Graduate Research (Thesis)</b> .....	3-6 hours
602)		
<i>Engineering</i>		
490	<b>Operations Research I</b> .....	3 hours
	PREREQ: Math 353, Math 235 or equivalent Introduction to Operations Research, discrete and continuous probability models, decision theory, linear programming, and the transportation problem. Network analysis, PERT, dynamic programming, game theory, and queueing theory for finite populations. Optimum cost solutions using manual and computer approaches.	
493	<b>Advanced Mechanics of Materials</b> .....	3 hours
	PREREQ: GE 242, GE 326, and Math 235 Stresses and strains at a point. Theories of Failures. Thick-walled pressure vessels and spinning disks. Torsion on non-circular sections. Torsion of thin-walled sections, open, closed and multicelled. Bending of unsymmetrical sections. Cross shear and shear center. Curved beams. Introduction to Elastic Energy Methods.	
494	<b>Advanced Dynamics</b> .....	3 hours
	PREREQ: GE 445, Math 235, GE 330 Motion of a variable mass. Angular impulse and momentum. General equations of motion. Gyroscopic motion. Theory of vibrations. Lagrange's equation and Hamilton's principle. Central force problems.	
495	<b>Advanced Fluid Mechanics</b> .....	3 hours
	PREREQ: BE 445, GE 331, Math 235 Kinematics of incompressible inviscid fluids. Eulerian and Lagrangian equations of motion. Velocity potentials and stream function. Flow net. Conformal transformations and airfoils. Flow of real fluids. Boundary layer theory.	
496	<b>Operations Research II</b> .....	3 hours
	PREREQ: ENG 490 Queueing theory for infinite populations, optimum-cost queueing solutions, inventory theory and control, applications of Markov chains, computer simulation of stockastic systems, integer programming, and an introduction to non-linear programming.	
504	<b>Experimental Stress Analysis</b> .....	3 hours
	PREREQ: GE 493 or permission Investigation of the basic theories and techniques associated with the analysis of stress using mechanical strain gages, electric strain gages, lacquer, photo-elasticity and membrane analogy.	
510	<b>Applied Elasticity</b> .....	3 hours
	PREREQ: GE 493, CE 343, Math 235 Stresses, strains, Hook's law and displacements, formulation of problems in elasticity, various methods of solution of two and three dimensional problems, thermal stresses, comparison with approximate solutions.	
512	<b>Theory of Plates and Shells</b> .....	3-6 hours
	PREREQ: GE 493, Math 235 Plates: Governing equations for the bending and stretching of thin plates with small deformations; solution of rectangular and circular plates and plates of various shapes with different boundary conditions by means of classical, energy and numerical methods; large deflection theory of thin plates. Shells: Membrane theory of barrel shells, domes, translation shells of double curvature; bending theory of domes, cylindrical shells; general theory of thin shells; analysis of thin folded plates.	
513	<b>Theory of Elastic Stability</b> .....	3 hours
	PREREQ: GE 493, Math 235 Beam columns, elastic buckling of bars and frames, inelastic buckling of bars, torsional buckling, lateral buckling of beams, buckling of rings, curved bars and arches.	

- 518 **Similitude** ..... 3 hours  
 PREREQ: Permission  
 The principles and illustrations of dimensional methods, similarity and model testing, distorted and dissimilar models. Applications to structures, fluid flow, heat transmission, electromagnetic theory, acoustics and chemical engineering, differential equations and similarity.
- 519 **Engineering Vibrations** ..... 3 hours  
 PREREQ: Math 235, Advanced Math for Engineers  
 Systems with One Degree of Freedom; Systems with Non-Linear and Variable Spring Characteristics; Systems with Several Degrees of Freedom; Vibrations of Elastic Bodies.

### ECONOMICS (ECON)

#### Graduate Faculty Members:

The Frederick W. Kayser Professor Elroy J. Steele (Chairman);  
 Associate Professor Keith K. Turner;  
 Assistant Professor Justin D. Stolen;  
 Graduate Lecturer Randall T. Klemme.

#### Master of Arts

An applicant for admission to the program for the Master of Arts in Economics must have the equivalent of 15 undergraduate semester hours in Economics.

*Degree Requirements:* The course program must include a balanced coverage of the major areas in economics. At least 15 hours of the required 30 hours, including thesis, must be courses numbered at the 500-level or above. Students must also satisfactorily complete Economics 520, 522, 529, and 545.

As part of the required 30 hours, graduate course work in related fields may be taken, up to a total of not more than 9 semester hours.

#### Master of Science

An applicant for admission to the program for the Master of Science in economics must have the equivalent of 15 undergraduate semester hours in economics.

*Degree Requirements:* The course program must include a balanced coverage of the major areas in economics. At least 18 hours of the required 36 hours must be approved at the 500-level or above. In lieu of a thesis, Economics 598 and 599 are included in the 36 hours total required. Students must also satisfactorily complete Economics 520, 522, 529, and 545.

It is expected that the candidate for the Master of Science degree in economics will concentrate required research on matters of concern in the Omaha metropolitan region. This is also a degree where teachers K-12 grades may concentrate on research concerning economic education in the schools.

As part of the required 36 hours, graduate course work in related fields may be taken, up to a total of not more than 12 semester hours.

#### Course Descriptions

- 411 **Government and Labor** ..... (II) 3 hours  
 PREREQ: Econ. 315  
 Provides a background of knowledge and understanding of the development of public policy, the regulation of labor by government and the relationship of the various levels of government to labor.

- 412 **Urban Geography (Same as Geography 412)** ..... 3 hours
- 418 **Collective Bargaining** ..... (I,II) 3 hours  
 PREREQ: Econ 315  
 A study of the issues, structures and procedures involved in collective bargaining, and the settlement of disputes, as centered around the labor-management contract.
- 421 **Advanced Firm and Industry Theory** ..... (I) 3 hours  
 PREREQ: Econ 320  
 The effects of changes in conditions of supply and demand under alternative market structures affecting firm and industry are examined. General equilibrium and welfare economics are introduced.
- 423 **Advanced Macro-Theory** ..... (II) 3 hours  
 PREREQ: Econ 322  
 A study of the level of income, production, employment, and growth. Classical and Keynesian systems are contrasted with recent theoretical paths being explored.
- 426 **History of Economic Thought** ..... (II) 3 hours  
 PREREQ: Econ 201, 202  
 From Mercantilism to the modern period. Focus is on the interactions of institutional milieu, thought and economic doctrine.
- 430 **Econometrics** ..... (I) 3 hours  
 PREREQ: BA 313, Econ 201 and 202 or equivalent  
 Introduction to the study and application of modern statistical and mathematical methods to economic models.
- 436 **Comparative Economic Philosophy** ..... (I) 3 hours  
 PREREQ: Econ 320  
 The mainstreams of political and economic philosophy are examined in order to understand both the political basis of comparative economic systems as well as to judge the political consequences of changing economic policy. The emphasis is prior to the twentieth century.
- 437 **Contemporary Economic Philosophy** ..... (II) 3 hours  
 PREREQ: Econ 322  
 A continuation of Economics 436 with emphasis upon contemporary writers and thinkers.
- 443 **Geography of Manufacturing (same as Geography 443)**
- 445 **Monetary Theory and Policy** ..... (I) 3 hours  
 PREREQ: Econ 345  
 The role of money in the stabilization at high levels, production, employment, income and prices. Emphasis is on contemporary problems.
- 456 **State and Local Finance** ..... 3 hours  
 PREREQ: Econ 201 and 202  
 Economic resource allocation problems of state and local government with particular reference to Nebraska and Omaha.
- 466 **Economic Development** ..... 3 hours  
 PREREQ: Econ 201-202  
 Problems relating to early stages of economic development; investment priorities, mobilizing savings and policies and programs are studied.
- 480 **Managerial Economics** ..... 3 hours  
 PREREQ: Econ 320  
 Economics applied in decision making, with special emphasis on application of the micro theory. It aims to bridge the gap between theory and managerial practice, stressing the measurement of theoretical concepts, collection and evaluation of information and comparison of alternatives.
- 500 **Analytical Foundations of Economics** ..... (I,II) 3 hours  
 Fundamental principles of macro and micro economic theory for Graduate Students in Business. The development of modern aggregate theory is examined and an economic analysis of the business firm, its market structure, production possibilities, and cost factors undertaken.
- 505 **Economic Education** ..... (I) 3 hours  
 Open to any graduate student with no previous college work in economics who is teaching K-12. Not open to majors in Economics. A study and examination of economic principles and how they can be related to the teacher's classroom presentation. This course is designed to furnish the public school teacher (K-12) with sufficient background and understanding to aid in the recognition of economic issues and the teaching of economic concepts and principles.

- 506 **Economic Education** ..... (II) 3 hours  
PREREQ: Econ 505  
A continuation of Econ 505.
- 507 **Economic Education Institute** ..... (S) 3 hours  
PREREQ: Permission by Director of the Institute  
A study and an in-depth examination of selected economic topics and their relation to citizens, students, teachers, community and society.
- 510 **Economic Security** ..... 3 hours  
PREREQ: Permission of Instructor  
The analysis and discussion of problems and programs of economic security, emphasizing historical developments, present programs, possible future developments, and various arguments and proposals. Particular attention will be given, especially through student research, to programs aimed at reducing urban poverty.
- 516 **Seminar in Labor Economics** ..... 3 hours  
PREREQ: Six hours of credit in undergraduate labor economics or permission  
A study and investigation of current developments and issues involving labor institutions, labor relations, wage theories and employment policies. Local and regional studies will be stressed
- 520 **Seminar in Micro Theory** ..... (I) 3 hours  
PREREQ: Econ 320  
This seminar develops modern micro-economic theory with emphasis on utility functions and demand, production functions and cost, price and non-price policy of the firms, market and multi-market equilibrium. Emphasizes theoretical methods and techniques as well as specific content.
- 521 **Micro-economic Theory** ..... (I,II,S) 3 hours  
PREREQ: Graduate standing in the College of Business Administration  
Microeconomics for graduate students of Business. Economic analysis of the business firm and its environments, with emphasis on market structure, production possibilities, and cost factors. Recent developments in the theory of the firm and operations research will be investigated.
- 522 **Seminar in Macro Theory** ..... (II) 3 hours  
PREREQ: Econ 322  
A brief review of the standard national income accounting and the more recent development of the flow-of-funds analysis. A study of the evolution and establishment of the Keynesian economics, its relationship to the classical macro-theory and the many refinements of the Keynesian model. To learn some extensions of the Keynesian theory, especially in connection with inflation, investment, and economic growth. A development of understanding of recent work in fiscal and monetary theory.
- 523 **Macro-economic Theory** ..... (I,II,S) 3 hours  
PREREQ: Graduate standing in the College of Business Administration  
A study of modern income theory and policy. The development of modern aggregate theory is reviewed. Recent fiscal and monetary policies regarding employment, inflation, investment, and economic growth are examined. Problems of applying policy in a dynamic economic environment are emphasized.
- 529 **Research Methods** ..... (I) 3 hours  
PREREQ: Permission of Instructor  
The application of specific mathematical and statistical procedures to business and economic research.
- 530 **Econometrics** ..... (II) 3 hours  
PREREQ: Permission of Instructor  
The study of the underlying assumptions, techniques, and applications of single and multiple equation regression analysis in economics.
- 540 **Seminar in American Economic History to 1865** ..... (I) 3 hours  
(See History)
- 541 **Seminar in American Economic History Since 1865** ..... (II) 3 hours  
(See History)

- 545 **Seminar in Money and Banking** ..... (II) 3 hours  
PREREQ: Six hours in undergraduate monetary courses or permission of the instructor  
Original research and writing of papers on basic problems in the area of money and banking. Required of all Economics majors.
- 565 **Seminar in International Economics** ..... 3 hours  
PREREQ: Econ 365 or 466 or permission of instructor  
Original research and critique of current issues in international economic theory, policy and institutions
- 580 **Independent Study in Topics on Urbanism** ..... 1 hour per sem. to 3  
PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences  
Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism. (Also listed under Geography, Political Science and sociology.)
- 581 **Urban Seminar in Metropolitan Planning and Development** ..... 3 hours  
(See Geography 581)
- 583 **Interdisciplinary Seminar on the Urban Community** ..... 3 hours per sem. to 6  
584 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences  
An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus. (Also listed under Geography, Political Science and Sociology.)
- 585 **Seminar in Urban Economics** ..... (I,II) 3 hours  
586 PREREQ: At least 6 hours of upper division course work in economics or permission of the instructor  
An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution.
- 587 **Seminar in Regional Economics** ..... (I,II) Each 3 hours  
588 PREREQ: At least 6 hours of upper division course work in economics or permission of the instructor  
An examination of the current developments and issues involving regional economic development and planning. These courses provide the theoretical basis for understanding and analyzing economic problems of a regional nature. In addition, policy alternatives, decision making, and measurement techniques are examined.
- 598 **Urban-Regional Research** ..... (I,II,S) Each 3 hours  
599 PREREQ: Permission of graduate adviser  
For Master of Science Degree candidates in Economics only, in lieu of thesis. Consists of a study in Urban Economic problems, employing research techniques. Students do independent research consulting with adviser, and submitting completed reports to a departmental committee.
- 601 **Thesis** ..... (I,II,S) Each 3 hours
- 602 PREREQ: Permission of graduate adviser  
An independent research project, written under the supervision of a graduate adviser in the department of Economics. Approval of the topic and the completed project by the student's departmental committee is required.

## EDUCATIONAL FOUNDATIONS (FED)

## Graduate Faculty Members:

Professor Joseph G. Dunn (Chairman);

Associate Professor Eugene Freund;

Assistant Professor Blaine Ward

Graduate courses in educational foundations are offered to fulfill requirements of departments offering graduate degrees in education or as cognate or selected courses on a plan of study.



## Course Descriptions

- 418 **Mental Health** ..... (S) 3 hours  
A general survey of principles of mental health; a study of social and emotional adjustments.
- 424 **Organization and Administration of Recreation** ..... 3 hours  
PREREQ: At least 9 hours of upper division courses in recreation or permission.  
Designed to provide a background of information on community recreation with special attention to organization, promotion, and development.
- 481 **Principles of Adult Education** ..... (I,S) 3 hours  
This course is an introduction to the study of adult education as a major development in contemporary America. The course surveys the major forms and problems of adult education and the foremost agencies providing programs.
- 482 **Adult Group Leadership** ..... (II,S) 3 hours  
A study of adult groups in modern society and the characteristics of effective leadership in all types of groups.
- 486 **Audio-Visual Materials in Education** ..... (I,II,S) 3 hours  
The selection, care, organization and utilization of materials and equipment of instruction.
- 487 **Preparation of Instructional Material** ..... (I,II,S) 3 hours  
A basic course in the production of inexpensive audio-visual materials for the classroom. Graphic, photographic and auditory materials are considered, including such instructional material as slides, filmstrips, dramatization and exhibits.
- 488 **Administration of the Instructional Materials Center** ..... (I,II) 3 hours  
This course is designed for students who wish to prepare themselves for the administration of an educational media program within an elementary and/or secondary school.
- 498 **Growth and Learning Problems of Disadvantaged** ..... 3 hours  
This course is designed to help students develop a basic understanding of child growth and development and learning problems of the disadvantaged children and youth.
- 500 **Special Studies** ..... (I,II,S) 3 hours  
A series of intensive courses especially for teachers in service—scheduled as regular seminars, or workshops, according to purpose.
- 501 **Introduction to Research** ..... (I,II,S) 3 hours  
To acquaint the beginning graduate student with the nature and significance of research; to enable the student to read, evaluate and apply research results and techniques; to give some understanding of the meaning and spirit of research; to give some experience in studying and preparing research reports.
- 502 **History and Philosophy of Education** ..... (I,II,S) 3 hours  
A survey of the rise of educational practice as it has been interrelated with changes in social and educational philosophy, research, and economic, industrial and cultural conditions, especially in the United States.
- 503 **Communication for Teachers of the Disadvantaged** ..... 3-6 hours  
An intensive interdisciplinary course dealing with the nature of the disadvantaged pupil, communication skills for teachers, and group interaction for the instructional teams working with low-income pupils.
- 504 **Comparative Education** ..... (I,S) 3 hours  
To acquaint students with education philosophies and programs in selected countries; to identify changes in programs of countries; to compare programs in education of other countries with the situation in the United States.
- 505 **Seminar in Education** ..... (I,II,S) 3 hours  
Research of problems in education which are of current significance (or of historical, philosophical or psychological backgrounds in education).
- 506 **Education and Society** ..... (II) 3 hours  
To provide an opportunity for teachers to develop an understanding of certain selected contemporary affairs which have an influence upon society.

- 508 **Topics in Audio-Visual Education** ..... (II,S) 3 hours  
A study of selected topics involving principles, problems, trends and materials in audio-visual education.
- 509 **The Urban School** ..... 3 hours  
An analysis of the societal and institutional processes and problems which have bearing upon the education of children in urban settings. A study of the urban school.
- 510 **Research Project** ..... 1-3 hours  
Individual or group study and analysis of specific problems in schools.
- 522 **Problems and Issues in Physical Education** ..... 3 hours  
An examination of current problems and issues in college, secondary, and elementary physical education. Special emphasis is given to problems that relate to the general aims and purposes of physical education.
- 524 **Physiology of Exercise** ..... 3 hours  
The response of human systems to exercise and physical conditioning programs. Includes a study of the physiological basis of muscular strength, endurance, and cardiovascular stress; the effects of nutritive aids on physical performance; and physiological principles of conditioning and fitness programs.
- 526 **Supervision of Physical Education** ..... 3 hours  
Concepts, principles, organization, and techniques of supervision for use by supervisors and teachers in the construction and supervision of programs in physical education.
- 528 **Curriculum in Physical Education** ..... 3 hours  
A study of the foundations for curriculum development and related educational problems. Special consideration is given to curriculum change, curriculum patterns, and programs in physical education.
- 530 **Analysis of Research and Literature in Human Movement** ..... 3 hours  
Survey of research and literature in human movement for the purpose of orienting the student to possible areas of research and developing an understanding and appreciation of writings in the field.
- 537 **Improvement of Instruction in Physical Education** ..... 3 hours  
An examination and discussion of current programs, content, methods and materials within physical education. Emphasized is the improvement of each individual's teaching in the physical education setting.
- 540 **Motor Learning and Performance** ..... 3 hours  
A study of conditions and factors which influence the learning and performance of motor skills with particular attention being given to those skills having relevance for the teacher of physical education.
- 545 **Kinesiological Analysis of Motor Skills** ..... 3 hours  
An investigation of the biomechanical basis of motor performance. Includes a descriptive analysis of fundamental movement forms and an examination of techniques for collecting kinesiological data.
- 548 **Practicum Internship** ..... 2-8 hours  
PREREQUISITES: Teacher Corps  
An integration of community and school experiences with special reference to the disadvantaged pupil. Each semester focuses upon a curriculum area of the junior high and elementary schools—language arts, social studies, evaluation procedures, classroom control and curriculum are the foci.
- 601 **Thesis** ..... (I,II) 3 hours
- 602 Independent research project written under the supervision of an adviser.

## ELEMENTARY EDUCATION (ELED)

## Graduate Faculty Members:

Professors Robert L. Ackerman, Hollie B. Bethel (Chairman);  
Associate Professor Helen Howell

## Master of Arts

Programs for the Master of Arts degree with a major in elementary education will be determined by the major adviser upon request.

## Master of Science

Students pursuing a Master of Science degree with a major in elementary education shall be excepted to take selected courses in areas outside of the field of elementary education as indicated in the following program outline.

I. Selected Cognate Courses	6-9 hours
II. Required Courses	21 hours
FED 501, Introduction to Research	
FED 502, History and Philosophy of Education	
EED 519, Diagnostic and Remedial Instruction	
EED 540, Innovations and Trends in Elementary Education	
EED 543, Introduction to Curriculum Planning—Elementary	
EED 544, Seminar in Elementary Education	
EDAD 566, Administration and Supervision in Elementary Schools	
III. Selected Courses	6-9 hours
To be determined by student and his adviser	

## Course Descriptions

420 Literature for Children and Youth	(I,II,S) 3 hours
Selection, evaluation and guidance in various types of literature for the elementary and junior high school levels.	
427 Current Trends in Early Childhood Education	3 hours
A survey of the problems involved in setting up and implementing a program for the child from birth to eight years of age. Recent trends will be investigated as they apply to the above activity.	
500 Special Studies	(I,II,S) 3 hours
A series of intensive courses especially for teachers in service—scheduled as regular seminars, or workshops, according to purpose.	
510 Research Project	(I,II,S) 1-3 hours
Individual or group study and analysis of specific problems in schools.	
519 Diagnostic and Remedial Instruction	(I,S) 3 hours
A study of methods of diagnosing children's difficulties in all subject areas of the educational program of the elementary school and remedial techniques for overcoming such problems.	
520 Improvement of Instruction in Elementary Science	3 hours
This course is designed for graduate students in education who wish to become better informed about the recently developed programs for elementary science; the methods, materials, philosophy, and emphasis in instruction, which are characteristic of these programs.	
521 Improvement of Instruction in Elementary Mathematics	3 hours
An examination of the philosophy, content, methods, and materials of modern mathematics programs for the elementary school. The needs and backgrounds of the students enrolled during the semester are given special consideration.	
540 Innovations and Trends in Elementary Education	3 hours
PREREQ: FED 501 Designed as an advanced study for the purpose of exploring current trends and developments within the various subject matter areas of the elementary school.	
543 Introduction to Curriculum Planning-Elementary	(I,S) 3 hours
PREREQ: FED 501 A study of the history, philosophy and current developments in the elementary curriculum with an emphasis on appropriate content and methods of curriculum reorganization.	
544 Seminar in Elementary Education	3 hours
PREREQ: FED 501 A study of educational problems as they relate to the elementary school, to be taken in the last nine hours in the program for the Master of Science degree.	
545 Seminar in Supervision of Student Teachers-Elementary	(I,II) 3 hours
PREREQ: 2 years of teaching experience Designed for experienced teachers who are or may be serving as cooperating teachers, and who desire to study student teaching, its aims, procedures, objectives, trends and developments.	

601 Thesis	(I,II,S) 3 hours
Independent research project required of all students taking Master of Arts degree. See major adviser.	
602 Thesis	(I,II,S) 3 hours
Independent research project required of all students taking Master of Arts degree. See major adviser.	

## SECONDARY EDUCATION (SED)

## Graduate Faculty Members:

Professors Paul B. Ackerson, G. Wayne Glidden, Leta Holley (Emeritus), Raymond A. Ziebarth (Chairman);  
Associate Professors M. Jean Bressler, Dale M. Bunsen, Donald J. Grandgenett, Edward J. Sadler;  
Assistant Professor Barbara Brillhart, Richard Flynn

## Master of Arts

Programs for the Master of Arts degree in secondary education will be determined by the major adviser upon request.

## Master of Science

I. Required Courses	9 hours
FED 501, Introduction to Research	
FED 502, History and Philosophy of Education	
SED 525, Seminar in Secondary Education	
II. Related Professional Courses	9-15 hours
(SED 530 and 533 strongly recommended)	
III. Related Cognate Courses	12-18 hours
Generally selected from areas related to student's teaching field	

## Course Descriptions

480 Principles of Vocational Education	3 hours
A study of the basic philosophy underlying vocational education and the principles and practices in the various fields.	
485 Coordination Techniques for Vocational Education	3 hours
Reviews responsibilities and techniques of coordination for the vocational teacher-coordinator and/or vocational coordinator, with special emphasis upon local administration of the part-time cooperative program and analysis of the laws and regulations governing this program.	
500 Special Studies	(I,II,S) 3 hours
A series of intensive courses especially for teachers in service—scheduled as regular seminars, or workshops, according to purpose.	
510 Research Project	(I,II,S) 1-3 hours
Individual or group study and analysis of specific problems in schools. Typical problems may include surveys, school finances, transportation, school building construction, maintenance and operation, curriculum, and pupil personnel.	
525 Seminar in Secondary Education	3 hours
Intensive study of problems of secondary education. Critical analysis of current research and related literatures; group and individual work on problems of group interest and relevance to secondary education.	
530 Emerging School Curriculum	(II,S) 3 hours
Designed to provide the student with understanding of the nature and trends in secondary school curriculum development, and the principles and practices in curriculum planning.	
532 The Junior High School	(I,S) 3 hours
This course is designed to acquaint the graduate student with the philosophy, objectives and functions of the junior high school program.	
533 Analysis of Teacher Behavior	3 hours
Emphasis is placed upon current observational systems for Analysis of Teacher Behavior in a classroom setting. Specific topics include in-depth instruction to Inter-action Analysis, Micro-teaching, Non-verbal Behavior and Simulation. Student Proficiency in these observational systems using video-tape equipment is stressed.	

The following courses are concerned with the secondary school in light of the nature and needs of the adolescent child and in relation to the goals of education, with implications for teachers, counselors and administrators. Emphasis will be placed on instructional procedure, curriculum, and classroom management ..... 3 hours each

- 535 Improvement of Instruction of Secondary School Speech
- 537 Implements of Instruction of Secondary School Foreign Language
- 540 Improvement of Instruction of Secondary School English
- 541 Improvement of Instruction of Secondary School English—Literature and Rhetoric
- 545 Improvement of Instruction of Secondary School Social Studies
- 550 Improvement of Instruction of Secondary School Mathematics
- 522 Foundations in Business Education ..... 3 hours  
Designed to develop a deeper and broader understanding of business education; to identify and define business education and to examine its past, present, and future role in the total education pattern of our country in today's world.
- 555 Improvement of Instruction of Secondary School Science
- 556 Improvement of Instruction of Secondary School BSCS Biology (yellow)
- 557 Improvement of Instruction of Secondary School BSCS Biology (green)
- 560 Improvement of Instruction of Science, Harvard Project Physics
- 562 Improvement of Instruction of Science, Earth Science Curriculum Project
- 565 Science Education Seminar  
A study of research of selected topics of fundamental importance to science education and treatment of one or more localized science education issues.
- 570 Improvement of Instruction in Science, Harvard Project Physics
- 572 Improvement of Instruction in Science, Earth Science Curriculum Project
- 575 Improvement of Instruction of Secondary School Business Education
- 576 Problems of Vocational Business Education ..... (S) 3 hours  
Designed for teachers of business education to develop a better understanding of the purposes, philosophy, current practices and trends in business education.
- 577 Vocational Curriculum Construction ..... 3 hours  
A course designed for teachers, supervisors, coordinators, and administrators of vocational education. The course includes principles, needs, factors, and trends that should be considered in developing a vocational education curriculum.
- 601 Thesis ..... (I,II,S) 3 hours  
Required of all students taking Master of Arts degree, see major adviser for information.
- 602 Thesis ..... (I,II,S) 3 hours  
Required of all students taking Master of Arts degree, see major adviser for information.

### COUNSELING AND GUIDANCE (COUN)

#### Graduate Faculty Members:

Professor B. Gale Oleson;

Associate Professors Richard Blake (Chairman), Donald Pfasterer;

Assistant Professors Robert Butler, Steven Cox, Harl Jarmin, Richard Stranges

Programs in Counseling and Guidance are arranged on an individual basis. Areas of frequent specialization, however, are secondary school counseling,\* elementary school counseling,\* agency counseling and student personnel services. Required courses are determined in relation to the student's previous course work, experience and anticipated work setting. For interested students, an emphasis on counseling with the urban disadvantaged may be developed within their program. Most programs would fit within one of the following general outlines.

#### Master of Arts

Programs for the Master of Arts degree with a major in counseling and guidance will be determined by the major adviser upon request.

#### Master of Science

##### Specialization in Agency Counseling

- I. Foundation Courses ..... 3-6 hours  
FED 501, Introduction to Research  
FED 507, Statistical Methods
- II. Selected Cognate Courses ..... 6-12 hours  
These courses are selected in accordance with student's particular area of interest.
- III. Counseling and Guidance Courses ..... 18-27 hours  
COUN 490, Principles of Guidance and Counseling  
COUN 520, Introduction to Counseling Theories  
COUN 522, Occupational and Educational Information  
COUN 523, Appraisal Techniques in Counseling and Guidance  
COUN 524, Counseling Practices  
COUN 525, Counseling Practicum  
Selected additional courses in the department.

##### Specialization in School Counseling—Secondary Level\*

- I. Foundation Courses ..... 3-6 hours  
FED 501, Introduction to Research  
FED 507, Statistical Methods
- II. Selected Cognate Courses ..... 6-12 hours  
These are most often selected from offerings of the Psychology, Sociology or Foundations of Education Departments.
- III. Counseling and Guidance Courses ..... 18-27 hours  
COUN 490, Principles of Guidance and Counseling  
COUN 520, Introduction to Counseling Theories  
COUN 522, Occupational and Educational Information  
COUN 523, Appraisal Techniques in Counseling and Guidance  
COUN 524, Counseling Practices  
COUN 525, Counseling Practicum  
Selected additional courses in the department.

##### Specialization in School Counseling—Elementary Level\*

- I. Foundation Courses ..... 3-6 hours  
FED 501, Introduction to Research  
FED 507, Statistical Methods
- II. Selected Cognate Courses ..... 9-12 hours  
These are most often selected from offerings of the Psychology, Sociology, Elementary Education and Special Education departments.
- III. Counseling and Guidance Courses ..... 18-27 hours  
COUN 492, Guidance in the Elementary School  
COUN 520, Introduction to Counseling Theories  
COUN 531, Child Assessment in Elementary School Guidance  
COUN 532, Counseling Elementary School Children  
Practicum or Internship ..... (6 hours)  
Selected additional courses in the department.

\* Teaching certificate required for institutional endorsement to serve as secondary or elementary school counselors.

*Specialization in College Student Personnel Services*

- I. Foundation Courses ..... 6 hours  
 FED 501, Introduction to Research  
 FED 507, Statistical Methods
- II. Selected Cognate Courses ..... 6-12 hours  
 These courses are selected in accordance with the student's particular area of interest. Most often these courses are taken in the departments of Sociology and Psychology.
- III. Counseling and Guidance Courses ..... 21-27 hours  
 The pattern of coursework is individually designed to prepare the student for specific roles within the field of student personnel services, i.e., Admissions and Registration, Counseling, Housing, Financial Aids, Placement and Student Activities.

## Course Descriptions

- 490 **Principles of Guidance** ..... (I,II,S) 3 hours  
 Basic principles underlying guidance and counseling practices in the United States. This course is a prerequisite for all other courses in the Guidance and Counseling Department. It is the recommended course for students in other departments who wish to have some understanding of professional guidance and counseling.
- 491 **Group Evaluation Techniques** ..... (I,II) 3 hours  
 A survey course dealing with types of measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group tests, construction of classroom tests, use of the cumulative record, the basic sociometric and projective techniques are included in this course.
- 492 **Guidance in the Elementary School** ..... (I,II,S) 3 hours  
 A study of the principles, practices and dimensions of elementary school guidance.
- 500 **Special Studies in Counseling and Guidance** ..... 3 hours  
 PREREQ: Permission of department  
 Intensive courses scheduled as regular seminars or workshops, according to purpose.
- 510 **Research Project in Counseling and Guidance** ..... 3 hours  
 PREREQ: Permission of instructor  
 Individual or group study and analysis of specific problems in counseling and guidance.
- 520 **Introduction to Counseling Theories** ..... (I,II,S) 3 hours  
 PREREQ: Coun 490 or 492  
 Study of contemporary theories of counseling, the counseling process and methods.
- 521 **Organization and Administration of Guidance Services** ..... (I,II,S) 3 hours  
 PREREQ: Coun 490 or 492  
 Study of organizational patterns and administrative practices in guidance and counseling programs.
- 522 **Occupational and Educational Information** ..... (I,II,S) 3 hours  
 PREREQ: FED 507 and Coun 490 or 492  
 The nature and use of occupational and educational information. The process of vocational choice.
- 523 **Appraisal Techniques in Counseling and Guidance** ..... (I,II,S) 3 hours  
 PREREQ: Coun 490 or 492  
 Utilization of standardized and non standardized appraisal techniques in counseling and guidance.
- 524 **Counseling Practices** ..... (I,II,S) 3 hours  
 PREREQ: Coun 520 or 523  
 An analysis of the theories and practices of counseling.
- 525 **Counseling Practicum** ..... (I,II,S) 2-3 hours  
 PREREQ: Coun 524 and permission of department  
 Counseling experience under the supervision of a Practicum instructor of the University.
- 526 **Guidance Internship** ..... (I,II,S) 2-3 hours  
 PREREQ: Coun 524 and permission of department  
 Field experience in an approved guidance program under the supervision of a qualified counselor and a guidance professor of the University.

- 527 **Group Techniques and Guidance** ..... (I,II,S) 2-3 hours  
 PREREQ: Coun 490 and permission of instructor  
 The role of group procedures in guidance. The implementation and evaluation of group procedures.
- 529 **Community Involvement for Urban Counselors** ..... 3 hours  
 PREREQ: Coun 490 or 492 and permission of instructor  
 An experiential involvement in the ecology of the Urban Disadvantaged. The student will have extended field experiences in the urban area as well as seminar-type activities.
- 531 **Child Assessment in Elementary School Guidance** ..... (I,II,S) 3 hours  
 PREREQ: Coun 490 and 492  
 Methods and techniques for identification of the elementary child as a unique individual.
- 532 **Counseling Elementary School Children** ..... (I,II,S) 3 hours  
 PREREQ: Coun 492, 531 and Departmental permission  
 A study of the methods and techniques applicable in counseling young children.
- 533 **Elementary School Counseling Practicum Part I** ..... (I) 3 hours  
 PREREQ: Coun 532 and permission of Department  
 Counseling in the elementary setting under the supervision of counseling professor of the University. Part I of Counseling Practicum sequence.
- 534 **Elementary School Counseling Practicum Part II** ..... (II) 3 hours  
 PREREQ: Coun 533 and permission of Department  
 Counseling in the elementary setting under the supervision of counseling professor of the University. Part II of Practicum sequence.
- 535 **Elementary Counseling Internship** ..... (I,II) 6 hours  
 PREREQ: Coun 532 and permission of Department  
 Field experience in all elementary counseling program under the supervision of a counseling professor and appropriate in-school personnel.
- 539 **Guidance Services and the Disadvantaged Youth** ..... 3 hours  
 PREREQ: Coun 520 and 524  
 A study of the methods and techniques in counseling disadvantaged youth.
- 601 **Thesis** ..... (I,II,S) 3 hours  
 PREREQ: Permission  
 Independent research project written under the supervision of an adviser.
- 602 **Thesis** ..... (I,II,S) 3 hours  
 PREREQ: Permission  
 Independent research project written under the supervision of an adviser.
- 605 **Theories and Studies in Occupational Educational Information** ..... 2-3 hours  
 PREREQ: Coun 522  
 Advanced study of theories and research related to vocational development, and current research in the construction and use of occupational and educational information.
- 610 **Advanced Studies in Counseling** ..... 2-3 hours  
 PREREQ: Coun 520 or Psych 477  
 An intensive study of selected counseling theories, methods and research.
- 612 **Counseling with Parents** ..... 2 hours  
 PREREQ: Coun 524 or 532  
 A course emphasizing techniques used in working with parents. Also recommended for other departments who may wish to have greater understanding in working with parents.
- 615 **Advanced Counseling Practicum** ..... 2-3 hours  
 PREREQ: Coun 525 or 526 or 536 and permission of Department  
 Continuation of Practicum in Counseling.
- 618 **Guidance and Counseling Seminar** ..... 2 hours  
 PREREQ: Permission of Department  
 The consideration of topics having current relevance to guidance and counseling.
- 619 **Research Project in Counseling and Guidance** ..... 2-3 hours  
 PREREQ: Permission of Department  
 Research study on a problem in the area of guidance and counseling.

## SPECIAL EDUCATION (SPED)

## Graduate Faculty Members:

Professor Donald Cushenbery;  
 Associate Professors Aaron Armfield (Chairman), W. Earl Morrison,  
 James M. Wood;  
 Assistant Professors Roger R. Harvey, Kathleen McKenney;  
 Graduate Lecturers Craig Fullerton, Edward LaCrosse, Wolf  
 Wolfensberger.

**Master of Arts***With A Major in Speech Pathology*

The Master of Arts degree with a major in speech pathology involves these requirements:

1. Pass an examination to determine adequate personal voice and speech proficiencies and adequate hearing acuity for speech. (Administered by the Speech and Hearing Clinic of the University.)
2. Have successfully completed a minimum of twenty-six semester hours of work preparatory to admittance to the major. These hours are to include the following courses or their equivalents: SPED 306, Introduction to Special Education; SPED 341, Speech Development and Correction; SPED 437, Basic Audiology; SPED 438, Auditory and Speech Mechanisms; SPED 442, Psychology of Speech; SPED 443, Speech Pathology II: Rhythm and Symbolization; SPED 445, Phonetics of American Speech; SPED 450, Speech Correction in the Elementary and Secondary Schools.
3. For those students who wish to work toward special state certification in the schools, advisor consultation should be sought early since additional coursework is required (this does not apply to those already holding state certificates in elementary or secondary teaching or a special services certificate in another field.)
4. Twenty-four semester hours of course work and practicum. These hours may be taken from the following:

**I. Required Courses**

FED 501 Introduction to Research  
 SPED 553 Advanced Problems  
 SPED 570 Seminar in Special Education  
 SPED 546 Speech Evaluation  
 SPED 548 Advanced Audiology

**Elective Courses**

Students may choose any of the courses in the area numbered 500 or above.

**5. Thesis:**

Students must present a thesis representing six semester hours of work and which is deemed satisfactory to the members of his committee.

*With a Major in Mental Retardation*

The Master of Arts degree with a major in mental retardation is a program primarily designed for persons certified or have near certification in special education. It involves a concentrated course of study designed to improve and advance competencies in the area of mental retardation and to provide investigative approaches to problems associated with children who are mentally retarded. Requirements include:

1. Applicants to the M.A. degree program in Mental Retardation must be approved by the Graduate Dean and the major adviser.
2. Applicants should hold a teaching certificate in special education or be within 15 credit hours of certification.
3. Students may undergo course work which will lead to:
  - a. a major of 24 hours in mental retardation.
  - b. a thesis not to exceed six semester hours.
 OR:
  - a. a major of 15 semester hours in mental retardation.
  - b. a minor of nine semester hours in a related field of interest.
  - c. a thesis not to exceed six semester hours.
4. To be admitted as a candidate for the M.A. degree in Mental Retardation the student must have successfully completed twelve hours of course work and passed a comprehensive written examination covering these first twelve hours.
5. Each candidate will submit a thesis proposal to his committee for approval. A thesis will represent six semester hours in independent study under the direction of the major adviser.
6. Subject to review of the applicants transcripts and related experiences with retarded children, required courses may be selected from the following:
  - a. Required Courses:
    - FED 501 Introduction to Research
    - SPED 570 Seminar in Special Education
    - SPED 672 Practicum in Special Education
    - SPED 601-602 Thesis
  - b. Elective courses may be chosen from any of the 500 level courses within the major and minor area of study.

**Master of Science***Major in Reading*

The Master of Science degree with a major in reading conforms to standards of the International Reading Association for the professional training of Reading Specialists. Applicants for admission must be eligible for teacher certification at the undergraduate level. The following program of studies will prepare the student as a teacher of reading at either the elementary or secondary level.

- |   |             |
|---|-------------|
| I. Core Professional Courses .....  | 12-15 hours |
| Including work in graduate reading courses (SPED 511, 512, 513, 514, and 515 or their equivalent).  |             |
| II Related Professional Courses .....   | 12 hours    |
| Including Introduction to Research and selected work in such areas as foundation and general education, elementary education, secondary education, special education, and psychology. |             |
| III. Related Cognate Courses .....  | 9-12 hours  |
| Including selected work in such areas as guidance and counseling and/or the various subject areas mentioned under sections I and II.  |             |

*Major in Speech Pathology*

The Master of Science degree with a major in speech pathology involves these requirements:

1. Pass an examination to determine adequate personal voice and speech proficiencies and adequate hearing acuity for speech. (Administered by the Speech and Hearing Clinic of the University.)

2. Have successfully completed a minimum of twenty-three semester hours of work preparatory to admittance to the major. These hours are to include the following courses or their equivalents: SPED 306 or 368, Introduction to Special Education or Observation and Participation; SPED 341, Speech Development and Correction; SPED 437, Basic Audiology; SPED 438, Auditory and Speech Mechanisms; SPED 442, Psychology of Speech; SPED 443, Speech Pathology I: Voice and Articulation; SPED 444, Speech Pathology II: Rhythm and Symbolization; SPED 445, Phonetics of American Speech; SPED 450, Speech Correction in the Elementary and Secondary Schools; SPED 451, Basic Practicum Speech; SPED 452, Advanced Practicum Speech.
3. For those students who wish to work toward special state certification in the schools, adviser consultation should be sought early since additional coursework is required (this does not apply to those already holding state certificates in elementary or secondary teaching or a special services certificate in another field.)
4. Thirty-six hours of course work and practicum. These hours may be taken from the following:

#### I. Required Courses

FED 501, Introduction to Research  
 SPED 541, Advanced Studies in Disorders of Articulation  
 SPED 542, Advanced Studies in Disorders of Voice  
 SPED 543, Advanced Studies in Disorders of Rate and Rhythm  
 SPED 544, Advanced Studies in Disorders of Aphasia and Related Problems  
 SPED 546, Speech Evaluation  
 SPED 547, Neuropsychology  
 SPED 548, Advanced Audiology  
 SPED 551, Basic Practicum Speech  
 SPED 552, Advanced Practicum Speech  
 SPED 553, Advanced Problems  
 SPED 570, Seminar in Special Education

#### Elective Courses

SPED 550, Basic Practicum Speech  
 SPED 555, Alaryngeal Speech Rehabilitation  
 SPED 556, Speech Problems of Cerebral Palsied Children  
 SPED 440, Learning Disabilities  
 SPED 433, Speech Reading and Auditory Training  
 SPED 421, Teaching of Speech to the Deaf I  
 SPED 422, Teaching of Speech to the Deaf II  
 SPED 423, Teaching of Language to the Deaf I  
 SPED 424, Teaching of Language to the Deaf II  
 SPED 460, Introduction to the Mentally Subnormal Child

#### \*II. Elective Courses in Related Areas

Depending upon the student's preparatory work, courses may be taken in fields such as psychology, sociology, speech, English, and other related areas.

#### *Major in Teaching the Deaf*

- \*\*I. Required Courses ..... 38 hours
- SPED 420, History Education and Guidance of the Deaf  
 SPED 421, Teaching Speech to the Deaf I  
 SPED 422, Teaching Speech to the Deaf II  
 SPED 423, Teaching Language to the Deaf I  
 SPED 424, Teaching Language to the Deaf II  
 SPED 433, Speech Reading and Auditory Training  
 SPED 434, Teaching School Subjects to the Deaf I  
 SPED 435, Teaching School Subjects to the Deaf II  
 SPED 437, Basic Audiology  
 SPED 438, Auditory and Speech Mechanisms

\* Student is responsible for prerequisites in any elective areas.

\*\* Substitutions possible where student has taken equivalent courses on the undergraduate or graduate levels.

FED 501, Introduction to Research  
 SPED 506, Teaching the Exceptional Child  
 SPED 570, Seminar in Special Education (or FED 502, History and Philosophy of Education)  
 SPED 572, Basic Observation and Student Teaching in Special Education  
 SPED 573, Advanced Observation and Student Teaching in Special Education

#### *Major in Teaching the Mentally Retarded*

The Master of Science degree with a major in mental retardation provides broad study investigations for students who wish to improve and expand competency areas necessary for greater individual proficiency in teaching mentally retarded children. State certification in EMH and TMH teaching are also available through this program. The following program requirements must be fulfilled:

1. Applicants to the M.S. degree in Mental Retardation must be approved by the Graduate Dean and the Major adviser.
2. Applicants should hold a valid certificate. Those not holding teaching certificates will be required to taken preparatory courses in teacher education (the number of courses to be taken will be subject to a review of the applicant's transcripts and his/her related experiences in teaching children).
3. To be admitted as a candidate for an M.S. degree in Mental Retardation the student must have successfully completed twelve hours of course work and passed a comprehensive written examination covering these first twelve hours.
4. Each candidate, having successfully completed thirty hours of course work and practicum, and enrolled for their last six hours, will be required to pass a final oral examination prior to his/her being recommended for the M.S. degree in Mental Retardation.
5. Thirty-six hours of course work and practicum may be taken from the following required and elective courses:

- |                     |  |          |
|---------------------|--|----------|
| a) Required Courses |  | 30 hours |
|                     | FED 501, Introduction to Research  |          |
|                     | SPED 506, Teaching Exceptional Children                                  |          |
|                     | SPED 460, Introduction of the Mentally Subnormal Child                   |          |
|                     | SPED 463, Curriculum for Mentally Retarded Children                      |          |
|                     | SPED 464, Methods and Materials for Teaching Mentally Retarded           |          |
|                     | SPED 572, Basic Observation and Student Teaching                         |          |
|                     | SPED 573, Advanced Observation and Student Teaching                      |          |
|                     | SPED 570, Seminar in Special Education                                   |          |
|                     | One course surveying language difficulties (or other equivalent course)  |          |
|                     | SPED 507, Introduction to Speech and Hearing Disorder                    |          |
|                     | SPED 475, Language Development of Exceptional Children                   |          |
|                     | One course concerning evaluation techniques (or other equivalent course) |          |
|                     | SPED 595, Diagnosis of Learning Disabilities                             |          |
|                     | Psych 532, Testing and Measurement                                       |          |
|                     | Psych 431, Psychological and Educational Testing                         |          |
| b) Electives        |  | 6 hours  |
|                     | SPED 440, Learning Disabilities  |          |
|                     | SPED 480, Emotional Development  |          |
|                     | SPED 485, Introduction to the Physically Handicapped                     |          |
|                     | SPED 566, Vocational Training of the Mentally Retarded                   |          |
|                     | SPED 571, Parent-Professional Relationship in Special Education          |          |
|                     | SPED 586, Methods and Materials for Teaching Crippled                    |          |
|                     | SPED 690, Administration and Supervision of Special Education            |          |

#### Course Description

- 420 **History: Education and Guidance of the Deaf** ..... (I) 2 hours  
 History of trends in deaf education culminating in current problems, practices and attitudes; survey of teaching and guidance opportunities; psychological problems of the deaf child.

- 421 **Teaching of Speech to the Deaf I** ..... (I) 2 hours  
Methods and practicum in teaching speech to the deaf child; special emphasis on tactual, visual and auditory techniques.
- 422 **Teaching of Speech to the Deaf II** ..... (II) 2 hours  
Continuation of Special Education 421; focus on various types of speech learning problems found in a population of deaf children.
- 423 **Teaching of Language to the Deaf I** ..... (I) 2 hours  
Philosophy of development of functional language for the deaf child; methods and materials for developing English language skills and comprehension.
- 424 **Teaching of Language to the Deaf II** ..... (II) 3 hours  
Continuation of Special Education 423 with further consideration of criteria for selection and utilization of teaching materials; special emphasis on language principles for the older deaf pupil.
- 433 **Speech Reading and Auditory Training** ..... (II) 2 hours  
History of development of speech (lip) reading; methods and practicum in teaching speech reading for various ages and degrees of hearing impairment.
- 434 **Teaching School Subjects to the Deaf I** ..... (I) 2 hours  
Philosophy underlying formal education of the deaf; methods and special adaptations used in presenting school subjects; special emphasis on reading.
- 435 **Teaching School Subjects to the Deaf II** ..... (II) 2 hours  
Consideration of problems in deaf education; special instructional techniques for junior and senior high school subjects.
- 437 **Basic Audiology** ..... (I,S) 2 hours  
History of the field of audiology, types of hearing losses, basic audiologic assessment including the case history, tuning fork tests, and pure tone air and bone conduction testing. An overview of the field is given including some information on hearing conservation, medical referral, and remediation.
- 438 **Auditory and Speech Mechanisms** ..... (I,S) 3 hours  
Basic structure and function of organs of hearing and speech; theories of cortical involvements; central and peripheral nervous systems.
- 440 **Learning Disabilities** ..... (II,S) 3 hours  
Study of developmental patterns in speech and language; casual factors of delayed speech and language development; evaluative techniques for identification of problem; therapy techniques for habilitation and/or rehabilitation of children with deviant language development.
- 442 **Psychology of Speech** ..... (II) 3 hours  
Psychological processes basic to speech; theories of language learning; semantics; psychology of hearing and deafness; interrelationships between speech and personality.
- 443 **Speech Pathology I: Voice and Articulation** ..... (II) 3 hours  
Types and causes of voice and articulation disorders; classroom demonstrations; special emphasis on rehabilitation procedures and methods associated with individual involvements.
- 444 **Speech Pathology II: Rhythm and Symbolization** ..... (I) 3 hours  
Types and causes of rhythm and language symbolization disorders; classroom demonstrations; special emphasis on rehabilitation procedures and methods associated with stuttering, aphasia, and delayed language development.
- 445 **Phonetics of American Speech** ..... (I,S) 3 hours  
Introduction to International Phonetic Alphabet; analysis of phonetic and phonemic elements in major American English dialects; practice in transcription of standard and defective speech.
- 450 **Speech Correction in the Elementary and Secondary Schools** ..... (I) 3 hours  
PREREQ: Graduate Standing and 6 hours Speech Pathology courses  
Speech correction programs as related to goals of public education for school age children; role and responsibilities of the speech clinician; current practices in evaluation, case load selection and scheduling; special emphasis on methods and materials appropriate to a variety of facilities.

- 451 **Basic Clinical Practicum in Speech Pathology** ..... (I,II,S) 3 hours  
PREREQ: Graduate Standing and permission  
Minimum of 45-60 clock hours per credit hour; supervised observation and practice in speech and hearing center; diagnostic interviews, therapy sessions, lesson plans, weekly practicum summaries.
- 460 **Introduction to The Mentally Subnormal Child** ..... (I,II,S) 3 hours  
Nature and educational needs of children and youth who are mentally subnormal; definitions; prevalence and types of children in educational programs; history; trends.
- 463 **Curriculum for the Mentally Retarded** ..... (I,II,S) 3 hours  
The mentally retarded child as an educable or trainable individual; an investigation of the practices and problems in curriculum development for the mentally subnormal child; preschool through vocational; identification of needs and goals and determination of content.
- 464 **Methods and Materials for Teaching the Mentally Retarded** ..... (I,II,S) 3 hours  
The retarded child as he relates to a variety of educational processes designed for his learning needs; methodology and teaching materials. Practice in the design and implementation of curriculum units, preschool through vocational; consideration of programs for the trainable "Track I" and "Track II" educational programs.
- 470 **Introduction to Teaching the Gifted** ..... (S) 3 hours  
Introduction to techniques and materials for identifying and helping to understand the specific development needs of gifted pupils and guidance services appropriate for them; understand types of learning tasks and how to evaluate achievement with them; analysis of filmed demonstration lessons appropriate to the specific needs of gifted pupils.
- 475 **Language Development of Exceptional Children** ..... (I) 3 hours  
This course is designed to cover a brief history of linguistic science; an investigation of the language development of children; a discussion of the various problems involved in language acquisition among exceptional children; and the various methodological techniques of teaching language to exceptional children.
- 480 **Emotional Development of Children and Youth** ..... (I,S) 3 hours  
An introductory study of emotional maturation of children and youth with attention to the symptoms and causes of emotional deviation, and the means of improvement.
- 485 **Introduction to the Education of the Physically Handicapped** ..... (I) 3 hours  
Nature and educational needs of children and youth who are physically handicapped; definitions; prevalence and types of children in educational programs; history; trends.
- 496 **Clinical Observation of the Multi-Handicapped** ..... (II) 3 hours  
To familiarize students with the multi-disciplinary team approach to treatment of handicapped children in the clinical setting.
- 500 **Special Projects** ..... (I,II,S) 1, 2 or 3 hours  
A series of intensive courses especially for teachers in-service scheduled as regular seminars, or workshops, according to purpose.
- 506 **Teaching the Exceptional Child** ..... (I,II,S) 3 hours  
PREREQ: Required course for all Special Ed. Majors  
Identification of exceptional children with respect to educational opportunities; current concepts and goals of special education; specific consideration of educational programs for children who are gifted, mentally retarded, speech handicapped, acoustically handicapped, orthopedically handicapped, visually handicapped, or motivationally disadvantaged; survey of trends and professional opportunities.
- 507 **Introduction to Speech and Hearing Disorders** ..... (II) 3 hours  
A survey of the disorders of speech, hearing and language; normal development of communication skills; the professions involved in the rehabilitation of the communicatively impaired individual.
- 510 **Research Projects** ..... (I,II,S) 3 hours  
Individual or group study and analysis of specific problems in schools.
- 511 **Problems of Teaching Reading-Elementary** ..... (I,II,S) 3 hours  
An advanced course for elementary and secondary teachers in the principles, practices, and use of instructional materials in the area of reading at the elementary level.

- 512 **Problems of Teaching Reading-Secondary** ..... (I,I,S) 3 hours  
An advanced course in reading for elementary or secondary teachers. Major emphasis will be given to the administration, organization, evaluation, methods and materials for the teaching of reading in each of the content subjects at junior and senior high school levels.
- 513 **Diagnosis and Remedial Instruction in Reading** ..... (I,II) 3 hours  
A course for advanced students in reading which will provide the student with the essential information for the diagnosis and remediation of reading disabilities.
- 514 **Measurement and Evaluation of Reading** ..... (I,I,S) 3 hours  
A course for advanced students in reading which will provide the student with the necessary training for establishing and operating a reading center (i.e., initiating and accepting referrals, forming evaluation schedules, administering appropriate evaluative devices, writing case reports and establishing follow-up sessions).
- 515 **Clinical Practice in Reading** ..... (I,I,S) 3 hours  
PREREQ: Permission  
A laboratory-oriented course for advanced students in reading which will provide them with practicum training in the use of proper remedial reading techniques in order that they might qualify as reading specialists.
- 516 **Reading Problems of the Disadvantaged Child** ..... 3 hours  
Investigation relating to causes of reading difficulties of the culturally disadvantaged; methods and materials; demonstration of individual and group reading remediation procedures.
- 517 **Seminar in Organization and Administration of Reading Programs** ..... (I) 3 hours  
PREREQ: One graduate Reading course, (or equivalent) and permission of instructor  
Participation in the seminar is limited to individuals who have completed at least one graduate reading course (or equivalent) and are professional workers who are charged with the total or partial responsibility for organizing and administering reading programs. Familiarity with the philosophy, organization, and major research related to different reading programs will be emphasized. Local and area reading authorities will conduct panels and lectures on topics chosen by the students.
- 541 **Advanced Studies in the Disorders of Speech Articulation** ..... (I) 2 or 3 hours  
Types and causes of articulation disorders; rationale for case selection; S-R-L syndrome; special emphasis of rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)
- 542 **Advanced Studies in the Disorders of Voice** ..... (I) 2 or 3 hours  
Types and causes of voice disorders; rationale for case selection; cleft palate; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)
- 543 **Advanced Studies in the Disorders of Rate and Rhythm** ..... (II) 2 or 3 hours  
Types and causes of rate, rhythm and stress pattern disorders; rationale for case selection; survey of stuttering theories and therapies; special emphasis on rehabilitation procedures associated with individual involvement; practicum. (Lec. 2, Lab. 3)
- 544 **Advanced Studies in the Disorders of Aphasia and Related Problems** ..... (II) 2 or 3 hours  
Types and causes of language symbolization disorders; rationale for case selection; childhood aphasia and autism; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)
- 546 **Speech Evaluation: Methods and Practicum** ..... (I) 3 hours  
PREREQ: Graduate Standing and 6 hours of Speech Pathology  
Tests and procedures for evaluating individuals with speech disorders; principles in differential diagnosis and report writing; observation during evaluation periods in speech and hearing centers.
- 547 **Neurophysiology of Speech** ..... (I) 3 hours  
Basic structure and function of the organs of hearing and speech; theories of cortical involvements, central and peripheral nervous systems as they affect communication; individual projects.

- 548 **Advanced Audiology** ..... (II) 3 hours  
PREREQ: 437 and Graduate Standing  
Audiologic assessment of hearing loss including case history, specialized audiometric tests, and counseling of clients, new and experimental procedures discussed; principles and procedures for selection and use of auditory amplification prostheses; industrial audiology and medico-legal problems discussed.
- 550 **Basic Clinical Practicum in Speech Pathology** ..... (I,I,S) 3 hours  
PREREQ: 451  
This course in practicum follows the course 451 which is the student's first experience in clinical practicum. It is designed to give graduate students who need more than one semester of closely supervised practicum an opportunity to get this experience before being placed in a setting away from the University.
- 551 **Advanced Clinical Practicum in Speech Pathology** ..... (I,I,S) 3 hours  
PREREQ: 451 and Graduate Standing  
This course provides the student with an "externship" experience for clinical practicum in either a school or a medical setting. A minimum of 45 clock hours of work is required for each credit hour per semester.
- 552 **Advanced Clinical Practicum in Speech Pathology** ..... (I,I,S) 3 hours  
PREREQ: 551  
The second semester of advanced clinical practicum. The student is placed in an "externship" setting with a cooperating master clinician. A minimum of 45 clock hours of work is required for each credit hour per semester.
- 553 **Advanced Problems in Speech Pathology** ..... (II) 3 hours  
PREREQ: Six hours Speech Pathology and Graduate Standing  
Students select and investigates three different areas of current concern in Speech Pathology; initial survey, annotated bibliography, presentation of observation and conclusions, seminar discussion of findings. Instructor will base his lectures on topics chosen by students for study; clinical demonstrations of selected voice, speech and language problems.
- 555 **Alaryngeal Speech Rehabilitation** ..... (I) 3 hours  
PREREQ: Graduate Standing and 6 hours Speech Pathology courses including voice problems  
Problems of voice and speech rehabilitations for the individual without a functional larynx; social, emotional, and medical considerations as well as clinical procedures for esophageal, pharyngeal and buccal speech; implications for use of artificial larynx; current research pertinent to this area.
- 556 **Speech Problems of Cerebral Palsied Children** ..... (II) 3 hours  
PREREQ: Six hours of Speech Pathology and Graduate Standing  
Identification of types of cerebral palsy by a location of lesion, motor symptomatology, and additional handicaps; the role of the speech clinician on the team; types of speech therapy, with special emphasis on the Bobath approach; current research and controversial issues will be discussed.
- 566 **Vocational Training of the Mentally Retarded** ..... (II) 3 hours  
Consideration of the following aspects of treatment of the mentally retarded; prevocational training and evaluation, on the job training, vocational placement, working with related disciplines, follow-up services.
- 570 **Seminar in Special Education** ..... (I,I,S) 3 hours  
Graduate course primarily for Special Education majors and professional workers in the fields of speech and hearing, teaching the deaf, teaching the mentally retarded, remedial reading and teaching the physically handicapped. Familiarity with philosophy, major literature and practices in each area; student will research and present a paper reflecting his personal professional interests. Discussions, forums, and panels; visiting experts.
- 571 **Parent-Professional Relationships in Special Education** ..... (I) 3 hours  
PREREQ: 506  
professional dealing with handicapped children became aware that a child's handicap affects the family unit and the community. Conversely, the family and the community influences the child's adjustment to his handicap. This course deals with the development of positive relationships between parents and professionals.



- 572 **Basic Observation and Student Teaching in Special Education** (I,II,S) 3 or 5 hours  
Classroom experience with exceptional children for graduate students who have had other professional experiences. Students will participate in observation, participation, teaching, and a weekly seminar.
- 573 **Advanced Observation and Student Teaching in Special Education** (I,II,S) 3 or 5 hours  
PREREQ: 572  
A second semester of classroom experience with exceptional children for graduate students who have had other professional experiences. Students will participate in observation, participation, teaching, and a weekly seminar.
- 586 **Methods and Materials for Teaching the Physically Handicapped** (II) 3 hours  
PREREQ: 506 and Intro. to the Education of the Physically Handicapped  
Consideration of the physically handicapped child as his unique exceptionalities require the development of specialized methods and materials designed to meet his learning needs; an investigation of practices and problems involved in methodology and materials; application of methods; development and evaluation of materials; practices in design and implementation of methods and materials; selected observation of programs.
- 595 **Diagnosis of Learning Disability** (I,S) 3 hours  
PREREQ: Coun. 491 or equivalent and Graduate Standing  
Special Education teachers are often required to interpret the results of evaluations developed through the use of testing. This course familiarizes the student with the various techniques used for diagnosing or evaluating learning problems.
- 601 **Thesis** (I,II,S) 3 hours  
Required of all students taking Master of Arts degree, see major adviser for information.
- 602 **Thesis** (I,II,S) 3 hours  
Required of all students taking Master of Arts degree, see major adviser.
- 672 **Basic Practicum in Special Education** (I,II) 3 hours  
PREREQ: Master's Degree and acceptance in the Ed Spec Program  
This course provides participation in various clinical or classroom situations in the field of special education. The course is open to all students in all areas of special education. Assignments will be made according to the area of interest of the student.
- 673 **Advanced Practicum in Special Education** (II) 3 hours  
PREREQ: 672  
A second semester of participation in various clinical or classroom situations in the field of special education. The course is open to all students in all areas of special education. Assignments will be made according to the area of interest of the student.
- 690 **Administration and Supervision of Special Education** (I) 3 hours  
PREREQ: Ed. 501, Ed. Ad. 562, and Ed. Ad. 569 and Admission to the Education Specialist Program  
This course provides a concentrated experience in dealing with specific problems in the administration and supervision of special education. The "case study" method will be utilized to develop a systematic approach to problem solving. Real and hypothetical cases will be presented. This course is based on the modern behaviorally oriented science of administration.

## EDUCATIONAL ADMINISTRATION AND SUPERVISION (EDAD)

### Graduate Faculty Members:

Professors Kenneth Burkholder, Paul C. Kennedy, Kirk E. Naylor,  
Robert C. O'Reilly, George R. Rachford;  
Associate Professor Darrell F. Kellams (Chairman);  
Assistant Professor Charles M. Wilson

### Master of Arts

Programs for the Master of Arts degree with a major in educational administration and supervision will be determined by the major adviser upon request.

### Master of Science

Students pursuing a Master of Science degree with a major in educational administration and supervision shall be expected to take selected courses in areas outside the field of educational administration in the following program outlines.

#### \*Major in Elementary Educational Administration and Supervision

- I. Selected Cognate Courses ..... 6 hours
- II. Required Courses ..... 24 hours
- FED 501, Introduction to Research  
FED 502, History and Philosophy of Education  
or  
ED AD 530, Seminar  
EED 540, Innovations and Trends in Elementary Education  
ED AD 535, Foundations of Educational Administration and Supervision  
ED AD 546, Administration and Supervision in the Elementary School  
ED AD 570, Administration and Staff Personnel  
ED AD 540, Practicum in Educational Administration  
ED AD 541, Advanced Practicum in Educational Administration
- III. Select two of the following ..... 6 hours
- ED AD 560, School Plant Planning and Operation  
ED AD 554, School Law  
ED AD 555, School Business Management  
ED AD 556, School Finance

#### \*Major in Secondary Educational Administration and Supervision

- I. Selected Cognate Courses ..... 6 hours
- II. Required Courses ..... 24 hours
- FED 501, Introduction to Research  
FED 502, History and Philosophy of Education  
or  
ED AD 530, Seminar  
COUN 490, Principles of Guidance  
ED AD 535, Foundations of Educational Administration and Supervision  
ED AD 547, Administration and Supervision in the Secondary School  
ED AD 570, Administration and Staff Personnel  
ED AD 540, Practicum in Educational Administration  
ED AD 541, Advanced Practicum in Educational Administration and Supervision
- III. Select two of the following ..... 6 hours
- ED AD 560, School Plant Planning and Operation  
ED AD, 554, School Law  
ED AD 555, School Business Management  
ED AD 556, School Finance

### Specialist in Education

This outline of program includes the work which might typically constitute the fifth and sixth years of collegiate work. The total coursework for both M.S. and Ed.S. would accumulate to not less than 66 graduate hours. The program reflects the philosophy which supports graduate education at the University that each student should be able to design a portion of his program to best harmonize his needs and ambitions. Each program will be designed with the aid of the student's adviser and must be approved by the candidate's committee.

\* Admission into the department requires that a person must have at least two years of teaching experience. Only students with three years of teaching experience will receive institutional endorsement to serve as school administrators.

*Admission to the Program*

1. Applicants must furnish all *credentials requested* in the standard application for admission to the Graduate College.
2. Applicants must hold a *Master's degree* from a regionally accredited institution. All graduate work taken by the applicant prior to admission to the program must have a *grade point average* of 3.25.
3. Applicants must hold full certification in educational administration and show evidence of having completed at least one year of successful practice as an educational administrator.
4. Scores of the Graduate Record Examination—verbal, quantitative, and advanced (Education) must total at least 1200.
5. A recommendation for study for the Ed.S. degree must be made by the adviser. This recommendation must be made prior to a second registration. Usually, it will precede the initial registration.

*Residency Requirement*

Candidates are required to pursue a portion of their work in residence. It may be fulfilled in one of the following ways:

1. As a full-time student (12-hour load) during one semester of the academic year.
2. As a full-time student (12-hour load) during two consecutive summer terms of the same summer session.

*Program Design*

The program has been designed to include the flexibility needed by at least two groups of students: (1) those preparing to become school principals; (2) those preparing to become school superintendents. The capstones of this Ed. S. program are the administration seminars (Ed.Ad. 660 and 661) and the field project (EdAd 611).

I. Core Professional Courses .....	42-48 hours
Including work in school finance, school business management, supervision, school law, administration seminars, and field work.	
II. Related Professional Courses .....	12-18 hours
Including selected work in such areas as curriculum, guidance, reading, foundations, and special education.	
III. Related Cognate Courses .....	9-15 hours
Including selected work in such areas as economics, English, psychology, business administration, sociology, geography, history, speech, mathematics.	

*Procedures in the Program*

Upon inquiry about the program in the Graduate Office, students are assigned an adviser by the Chairman of the Department. This adviser will conduct a screening interview, the results of which become a part of the student's permanent record. In questionable cases, the adviser may ask for the assistance of a committee.

Assuming a satisfactory interview, the student will be notified of acceptance, and his committee appointed by the Graduate Dean. The committee will meet to consider the student's planned program and

preliminary coursework, at which time the student should apply for degree candidacy. Upon acceptance into candidacy, the tentative program shall become the permanent planned program.

After notification of acceptance to candidacy, the Ed. S. student should commence background work on his field project. The outline should be presented to his committee; the members will evaluate, then accept, modify, or reject the project. A final committee-approved outline shall then be filed in the student's cumulative record. At least one committee meeting will be devoted to the field project, while it is in progress. At that time, committee members will have an opportunity to pose questions and make suggestions. The oral final examination for the student shall center on the field topic. The examining group shall be the committee and the Graduate Dean or his representative.

*Course Descriptions*

500 <b>Special Studies in Educational Administration and Supervision</b> .....	(I,II,S) 3 hours
A series of intensive courses especially designed for educational administrators and supervisors—scheduled as regular seminars or workshops, according to purpose.	
510 <b>Research Project in Educational Administration</b> .....	(I,II,S) 3 hours
Individual or group study and analysis of specific problems in educational administration and supervision.	
525 <b>Data Processing in Educational Administration</b> .....	3 hours
A study of the role of electronic data processing and systems procedures in educational administration.	
530 <b>Seminar in Educational Administration</b> .....	3 hours
A study of educational problems and their relationship to and implications for educational administration. (Course should be taken in last nine hours of the Master of Science Degree.)	
535 <b>Foundations of Educational Administration and Supervision</b> .....	3 hours
A study of the nature and functioning of effective school organization and administration, including the inter-relationship between the federal, state, and local responsibilities.	
540 <b>Practicum in Educational Administration and Supervision</b> .....	3 hours
PREREQ: Fed 501 and approval Designed to provide guides study and practice in elementary, secondary and general administration and supervision as the interests and needs of the student requires.	
541 <b>Advanced Practicum in Educational Administration and Supervision</b> .....	3 hours
PREREQ: EDAD 540 Continuation of Education 540. Advanced study and practice under guidance in elementary, secondary or general administration and supervision as the needs of the student requires.	
546 <b>Administration and Supervision in Elementary Schools</b> .....	3 hours
PREREQ: Fed 501 The nature, principles and functions of modern administrative and supervisory practices as they relate to the elementary school.	
547 <b>Administration and Supervision in Secondary Schools</b> .....	3 hours
PREREQ: FED 501 and EDAD 535 The nature, principles and functions of modern administrative and supervisory practices as they relate to the secondary school.	
548 <b>Administration and Supervision in Junior High School</b> .....	3 hours
PREREQ: FED 501 and EDAD 535 This course is designed to acquaint the graduate student with the nature of administration and supervision of the junior high school program.	
554 <b>School Law</b> .....	3 hours
PREREQ: FED 501 and EDAD 535 Considers legal principles and practices which are applicable to public education for public school teachers and administrators.	

- 555 **School Business Management** ..... 3 hours  
PREREQ: FED 501 and EDAD 535  
An analysis of the functions of business management; budgetary procedures; financial accounting, auditing and reporting; management of funds, purchasing procedures and inventory; administration and protection of property; and administration of transportation.
- 556 **School Finance** ..... 3 hours  
PREREQ: FED 501 and EDAD 535  
A study of the sources of school financing; local, state and national. In addition to covering this area from a historical point of view, emphasis is placed on current problems in school finance.
- 560 **School Plant Planning and Operation** ..... 3 hours  
PREREQ: FED 501 and EDAD 535  
Includes steps in planning the modern school building: site selection, building construction and design; school furniture and equipment; maintenance and operation; rehabilitation; scheduling of work; and custodial care.
- 561 **Organization and Administration of the Physical Plant** ..... 3 hours  
PREREQ: EDAD 560  
Designed to give the school administrator competence in organizing the maintenance and operation program of the school plant; includes long range maintenance, rehabilitation and remodeling, financing, scheduling of work and custodial care.
- 570 **Administration and Staff Personnel** ..... 3 hours  
PREREQ: FED 501 and EDAD 535  
This course deals with personnel policies, problems, and issues in the following areas: teacher recruitment, orientation, evaluation, promotion, tenure, retirement, professional organizations and legal status. Emphasis will be placed upon the techniques of democratic administration.
- 571 **Interpersonal Relationships in Educational Administration** ..... 3 hours  
This course is designed specifically with interpersonal and group relations. It should be useful to those administrators who recognize the need to increase their knowledge and skills in human relations.
- 580 **Administration and Supervision of Vocational Education** ..... 3 hours  
Basic concepts for administration and supervision of vocational education, as related to the needs of the superintendent, principal, supervisor.
- 581 **Urban School Administration** ..... 3 hours  
This course is designed to acquaint students of educational administration with urban problems and issues which most significantly affect the administration of city schools.
- 590 **Administration of Higher Education** ..... 3 hours  
A study of the major functions of higher education, with emphasis on the principles involved in organizing and directing the academic program, the activities of the student body, the faculty and staff, personnel policies, financing the program, operating the buildings and grounds and conducting the public relations program.
- 600 **Seminar in Educational Administration** ..... 3 hours  
PREREQ: Admission to Education Specialist Program  
Participation in the Seminar is limited to individuals who have a Master's degree with a major in school administration and will include current educational problems and procedures.
- 601 **Advanced Seminar in Educational Administration** ..... 3 hours  
PREREQ: Admission to Education Specialist Program  
Participation is limited to individuals who have been admitted to candidacy for the Specialist in Education degree with a major in school administration. Emphasis will be placed upon the theory and techniques of administration.
- 611 **Field Project in Educational Administration** ..... 3 hours  
PREREQ: Admission to Education Specialist Program and Approval, Department Chairman  
The study of a problem in the area of school administration, and employs the techniques of research.

## EDUCATIONAL EXPERIMENTATION AND DEVELOPMENT

## Graduate Faculty Members:

Professors Floyd Waterman (Chairman);  
Associate Professor James W. Selee;  
Assistant Professor Walter M. Calinger

The Master of Science degree with a major in urban education is for previously certified teachers at either the elementary or secondary levels.

*Major in Urban Education*

The Master of Science degree with a major in Urban Education is designed for teachers (secondary and elementary) who are already certified and who have an interest in working with low-income area students. Candidates must hold either a B.S. or B.A. degree and a valid teaching certificate. He must be personally interviewed by a faculty member associated with Urban Education.

The program is designed to help students identify key agencies in the community and to identify the relevant social economic, and teaching problems of low-income area students.

Required courses ..... 9 hours  
FED 501G Introduction to Research  
FED 506G Education and Society  
FED 509G The Urban School

Recommended Professional Courses ..... 6 hours  
COUN 490G Principles of Guidance  
COUN 492G Guidance in the Elementary School  
COUN 522G Occupational Guidance  
COUN 523G Individual Analysis  
FED 418G Mental Health in the School  
FED 498G Meeting the Needs of the Disadvantaged Child  
FED 598G Growth & Learning Problems of the Disadvantaged  
FED 500G Special Problems in Urban Education  
FED 505G Seminar in Education  
Sped 511G Problems in Teaching Reading, Elem.  
Sped 512G Problems in Teaching Reading, Secondary  
Sped 513G Reading Diagnosis  
Sped 506G Teaching the Exceptional Child  
Sped 516G Problems of the Disadvantaged

Selected Supporting Courses ..... 21 hours  
Psychology 431G Psychological and Educational Testing  
Psychology 433G Individual Differences  
Psychology 455G Retardation  
Psychology 459G Theories of Development Psych.  
Psychology 550G Seminar in Communication Theory  
Psychology 557G Behavior Modification  
Geography 412G Urban Geography  
Geography 531G Cultural Geography  
Geography 565G Land Use  
Geography 571G Population Seminar  
Geography 581G Urban Seminar  
Economics 505 Economics for Teachers I  
Economics 506 Economics for Teachers II  
Economics 411 Government and Labor  
Sociology 402G Collective Behavior  
Sociology 403G Advanced General Sociology  
Sociology 410G The Community  
Sociology 414G Urban Sociology  
Sociology 415G American Family Problems  
Sociology 510G Seminar  
Sociology 511G Social Prob., esp. of Disadvantaged  
Pol. Sci. 440 Public Budgeting  
Pol. Sci. 443 Municipal Administration

## ENGLISH (ENG)

## Graduate Faculty Members:

Professors Robert D. Harper, Ralph Wardle;  
Associate Professors Bruce Baker (Chairman), Richard L. Lane,  
Glen A. Newkirk

## Master of Arts

To be admitted to graduate study in English, a student should have completed at least eighteen credit hours in undergraduate English courses above the freshman level with an average grade of "B" or above.

All candidates for Master's degrees in English are required to take English 501 (Introduction to Literary Research), to pass a proficiency examination in French or German, and to follow one of the following plans of study:

- I. A total of 24 credit hours in course work, including at least nine hours in seminar courses, and a thesis on an approved topic accepted after oral defense before a faculty committee.
- II. A total of 36 credit hours in course work, including at least twelve hours in seminar courses, and a written examination prepared and judged by a faculty committee.

The following English seminars in major periods vary in emphasis and may be repeated for an additional three hours of credit: English 506, 508, 509, 510, 512, 515, 520, and 525.

## Course Descriptions

433	<b>Sixteenth Century Literature</b> .....	3 hours
	PREREQ: Graduate	
	Poetry and prose of the English Renaissance, from its continental origins to the end of the Elizabethan Age.	
434	<b>Chaucer</b> .....	3 hours
	PREREQ: Eng. 231	
	A study of the language and writing of Chaucer, with emphasis on <i>The Canterbury Tales</i> .	
440	<b>English Literature in the Age of Pope and Swift</b> .....	3 hours
	PREREQ: Graduate	
	A detailed study of selected authors and works of the Augustan Age of English Literature, with emphasis on Pope and Swift.	
441	<b>The Age of Johnson</b> .....	3 hours
	PREREQ: Graduate	
	Poetry, prose (exclusive of the novel) and drama of England during the second half of the eighteenth century.	
448	<b>Seventeenth Century Literature</b> .....	3 hours
	A study of the English poetry and prose of the seventeenth century to the Restoration with emphasis on Milton.	
450	<b>English Drama before 1642</b> .....	3 hours
	PREREQ: Eng. 231 or permission	
	A study of the development of the English drama, exclusive of Shakespeare, from the beginnings to 1642.	
458	<b>Structural Linguistics</b> .....	3 hours
	PREREQ: Graduate or permission	
	An analysis of the English language as it is spoken with the end view of gaining better understanding of the language and how to make it work most effectively.	
465	<b>The English Novel</b> .....	3 hours
	PREREQ: Graduate	
	The development of the English novel from the beginning to the end of the Victorian period.	

468	<b>History of the English Language</b> .....	3 hours
	PREREQ: Eng. 353 or permission	
	A study of the internal and external forces which have influenced the development of the English language.	
472	<b>Medieval English Literature</b> .....	3 hours
	PREREQ: Eng. 231 or permission	
	A survey of the principal writings in English, excluding those of Chaucer, from 1100 to 1500.	
481	<b>Literature of the Romantic Period</b> .....	3 hours
	PREREQ: Graduate	
	Poetry and prose (excluding the novel) of England from 1798 to 1830.	
482	<b>Literature of the Victorian Period</b> .....	3 hours
	PREREQ: Graduate	
	Poetry and prose (excluding the novel) of England from 1830 to 1900.	
497	<b>The American Novel</b> .....	3 hours
	PREREQ: Graduate	
	The major American novelists from Hawthorne to the present.	
498	<b>The American Drama</b> .....	3 hours
	PREREQ: Graduate	
	A general view of the history of the drama and theatre in the United States, especially as related to the main currents of American thought.	
501	<b>Seminar: Introduction to Literary Research</b> .....	3 hours
	PREREQ: Graduate	
	A survey of the techniques of literary research, history and interpretation, with a primary emphasis on methods of scholarship currently useful to the study of English and American literature.	
504	<b>Seminar: Literary Criticism</b> .....	3 hours
	PREREQ: Graduate	
	Literary criticism from the beginnings to the present, with emphasis on the criticism of ancient Greece and Rome, nineteenth century England and twentieth century America.	
506	<b>Seminar in American Literature</b> .....	3 hours
	PREREQ: Graduate	
	An analytical study of the major literary movements in nineteenth and twentieth century America as they are expressed in poetry, fiction, drama and criticism.	
508	<b>Seminar: The English Renaissance</b> .....	3 hours
	PREREQ: Graduate standing or permission	
	A seminar in a few significant literary figures of the English Renaissance.	
509	<b>Seminar: The Restoration and Early 18th Century</b> .....	3 hours
	PREREQ: Graduate	
	A detailed study of selected authors and works of the Augustan Age of English literature (1660-1750).	
510	<b>Seminar in Victorian Literature</b> .....	3 hours
	PREREQ: Graduate	
	Intensive study of selected nineteenth century English authors and their works.	
512	<b>Seminar in Shakespeare</b> .....	3 hours
	PREREQ: Graduate	
	Critical analysis of ten tragedies or ten comedies of Shakespeare.	
514	<b>Seminar: John Milton</b> .....	3 hours
	PREREQ: Graduate	
	An intensive seminar in the major works of John Milton and investigation of specific critical and scholarly problems.	
515	<b>Seminar in English Literature 1750-1830</b> .....	3 hours
	PREREQ: Graduate	
	Studies in English literature of the Age of Johnson and that of the Age of Wordsworth.	
520	<b>Seminar in Medieval Literature</b> .....	3 hours
	PREREQ: Graduate	
	A study of the rationale and techniques of medieval allegory.	

525 Seminar in Chaucer .....	3 hours
PREREQ: Graduate and permission An analysis of the selected works of Chaucer, his sources, and analogues.	
601 Thesis .....	3 hours
602 Thesis .....	3 hours

## FOREIGN LANGUAGES

### Graduate Faculty Members:

Professor Woodrow L. Most (Chairman);  
Assistant Professors Gaylord Todd, Kenneth Eller.

Graduate courses in the Department of Foreign Languages are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

### Course Descriptions

#### *French (FREN)*

340 Eighteenth Century French Literature .....	(II) 3 hours
PREREQ: French 212 Study of the Enlightenment, emphasizing the works of Montesquieu, Voltaire, Rousseau and Diderot.	
351-352 Nineteenth Century French Literature .....	(I,II) 3 hours
PREREQ: French 212 for either 351 or 352 351: 1789 to 1848, Lamartine to Michelet, Stendhal, Mérimée, Balzac, Hugo. 352: 1850 to 1885, Realism Naturalism Parnesee, Symbolism.	
421 Sixteenth Century French Literature .....	(II) 3 hours
PREREQ: Any 300 course in French literature. Literature of the Renaissance, Rabelais, Ronsard, Montaigne.	
431 Seventeenth Century French Literature .....	(I) 3 hours
PREREQ: Any 300 course in French literature. The Classical School Descartes, Pascal, Corneille, Molière, Racine, La-Fontaine.	
451-452 Twentieth Century French Literature .....	(I,II) 3 hours
PREREQ: For either 451 or 452, any French 300 course in literature or permission of instructor. 451: Main currents of twentieth century literature from the beginning to 1930. 452: Continuation to current literary production.	
460 Pro-Seminar .....	(II) 3 hours
PREREQ: Permission of instructor A detailed study of narrower phases of French literature, language or culture.	

#### *German (GERM)*

431 German Literature of the 19th Century .....	(I) 3 hours
PREREQ: German 313 The dramatic, epic and lyric works of nineteenth century German literature.	
432 German Literature of the 20th Century .....	(II) 3 hours
PREREQ: German 313 The principal dramatic, epic and lyric works of the twentieth century German literature.	
439 German Novel .....	(II) 3 hours
PREREQ: Permission of instructor Survey of the German novel from its beginning to the twentieth century.	
440 German Novelle .....	(II) 3 hours
PREREQ: German 313 or permission Survey of the German short story, its historical origin, characteristics.	

444 German Drama .....	(II) 3 hours
PREREQ: German 313 or permission Study of several of the better-known dramas, history of drama development in Germany.	
449 German Literature of the Seventeenth Century .....	(II) 3 hours
PREREQ: German 313 or permission of instructor The principal dramatic, epic and lyric works of seventeenth century German literature.	
450 German Literature of the Eighteenth Century .....	(I) 3 hours
PREREQ: Permission of instructor A study of representative authors of the Enlightenment, Storm and Stress, and German Classicism: Lessing, Herder, Schiller, and Goethe.	
458 Bibliography and Methodology .....	(II) 1-2 hours
PREREQ: Permission of instructor An introduction to the basic bibliography and methodology of German literature and language.	
460 Pro-Seminar in German Literature .....	(II) 1-3 hours
PREREQ: Permission of instructor A detailed study of narrower phases of German literature, language or culture.	

#### *Spanish (SPAN)*

355 Modern Drama of Spain .....	(I) 3 hours
PREREQ: Span. 318 or permission Ideologies, techniques, trends, and influences of the major Spanish dramatists of the nineteenth and twentieth centuries.	
356 Modern Novel of Spain .....	(II) 3 hours
PREREQ: Span. 318 or permission Analytical study of the representative Spanish novelists of the nineteenth and twentieth centuries from P.A. de Alarcón to Cela.	
410 Theater of the Golden Age .....	(I) 3 hours
PREREQ: 317 or permission of instructor Foremost Spanish dramatists and plays of the sixteenth and seventeenth centuries, with emphasis on Lope de Vega, Tirso de Molina, and Calderón de la Barca.	
411 Novel of the Golden Age .....	(II) 3 hours
PREREQ: 317 or permission of instructor Study of the prose masterpieces of the sixteenth and seventeenth centuries, including such works as Lazarillo de Tormes, La Celestina, and Don Quixote.	
416 Spanish American Literature of the 20th Century .....	(I) 3 hours
PREREQ: Span. 322 or permission Critical and analytical study of the foremost Spanish American dramatists, poets, and essayists from Modernism to the present.	
420 Spanish American Novel .....	(I) 3 hours
PREREQ: Span. 322 or permission Study of representative novels and novelists of the nineteenth and twentieth centuries, with emphasis on contemporary authors.	
424 Generation of 1898 .....	(II) 3 hours
PREREQ: Span. 318 or permission Examination of the ideology, philosophy, and literary techniques of Unamuno, Martínez Ruiz, Valle-Inclán, Baroja and Antonio Machado.	
435 Spanish American Short Story .....	(II) 3 hours
PREREQ: Span. 321 and 322 or permission of instructor Representative stories of the nineteenth and twentieth centuries, from Romanticism to current production.	
460 Pro-Seminar .....	(I) 3 hours
PREREQ: Permission of instructor A detailed study of narrower phases of Spanish or Spanish American literature, language or culture.	

## GEOGRAPHY AND GEOLOGY (GEOG-GEOL)

## Graduate Faculty Members:

Professors Harold J. Retallick, Gordon Schliz (Chairman), Phillip E. Vogel;  
Associate Professor Nicholas Bariss  
Assistant Professor John F. Shroder

## Master of Arts

An applicant for admission to the Master of Arts degree program in geography must present as a prerequisite a minimum of 15 undergraduate semester hours of geography including physical, economic, political, and cartography.

**Degree Requirements:** The degree requires a minimum of 30 semester hours in geography courses numbered 400 and 500, including thesis. Permission of the department head is required for a student to take more than two 400 level courses to apply toward an M.A. degree. A thesis involving field work in an area of study under the direction of a major adviser is required.

Basic courses required for an M.A. degree include Urban Geography, Cultural Geography, Political Geography Seminar, Geomorphology or Physiography of North America and Field Geography.

## Master of Science

An applicant for admission to the Master of Science degree program in geography must present as a prerequisite a minimum of 15 undergraduate semester hours in geography including physical, economic, political, and cartography.

**Degree Requirements:** The degree requires a minimum of 36 semester hours in geography courses numbered 400 and 500. No thesis is required for the M.S. degree. Permission of the department head is required for a student to take more than two 400 level courses to apply toward an M.S. degree.

Basic courses required for an M.S. degree include Urban Geography, Cultural Geography, Political Geography Seminar, Geomorphology or Physiography of North America, and Field Geography.

## Course Descriptions

- 401 **Conservation of Natural Resources** ..... 3 hours  
PREREQ: 3 hours of Geography  
A study of physical, cultural, and human resources of nations with emphasis on the United States. Includes the history of conservation in the U.S., the philosophy behind the movement, current conservation practices and problems, and the direction in which resource use and conservation is moving.
- 412 **Urban Geography (Same as Econ. 412)** ..... 3 hours  
A geography of the city from the viewpoint of history, site, and situation, external relations, internal relations, and the comparative study of cities.
- 423 **Great Plains and Nebraska** ..... 3 hours  
PREREQ: 6 hours of Geography  
This is a regional geography course intended for geography majors and Arts and Sciences students who may have an interest in this particular area. It is desirable to have had some previous study with regional geography.

- 432 **Climates of the World** ..... 3 hours  
PREREQ: Geog. 106 (or a meteorology course).  
Climatic controls and elements of the continents are studied on the basis of regional subdivision according to the modified koppen system.
- 443 **Geography of Manufacturing (Same as Econ. 443)** ..... 3 hours  
PREREQ: Geog. 313 or Econ. 201 and 202  
A course which discusses methods of measurement and classification, as well as the function of manufacturing; major world manufacturing regions and industry analysis; location criteria and theory in the U.S.; and local community patterns.
- 453 **Historical Geography of the United States** ..... 3 hours  
PREREQ: Hist. 111 and 112  
A course dealing with the geography of the past. Emphasis is placed on the sequent occupation of regions in the United States or the geography of major divisions of the United States at selected times in the past.
- 460 **Independent Regional Research** ..... 1, 2 or 3 hours  
PREREQ: Permission of department chairman
- 490 **Urbanization in Developing Areas** ..... 3 hours  
PREREQ: 6 hours of Geog. and Urban Geog. 412  
The functions and morphology of various types of cities found in presently developing areas of the world. Emphasis will be upon contrasting the cities of the developed and developing areas.
- 491 **Internship in Local Government (Same as Pol. Sci. 491)** .....  
2 hours per semester to maximum of 6

(All 500 and 600 Courses Require Department Permission)

- 501 **Geography Concepts: History and Philosophy** ..... 3 hours  
PREREQ: Permission  
Introduction to History of Geography. Emphasis on significant ideas, concepts, methodologies, and philosophies in geography from the classical Greeks to present.
- 502 **Geography Concepts: Quantitative Methods** ..... 3 hours  
PREREQ: Permission  
The understanding and appreciation of quantitative techniques in geography. Emphasis is placed on sampling theory and design, graph theory and spatial statistics.
- 503 **Investigating the Earth** ..... 3 hours  
PREREQ: Permission of the chairman of the Secondary Education Department  
A survey of earth science which provides a basic knowledge of the earth as a planet, the solar system, and the universe; and an introduction to the earth's atmosphere and hydrosphere.
- 504 **Teaching of Geography: A Seminar in Educational Geography** ..... 3 hours  
PREREQ: Permission  
A survey of methods, instructional aids and goals for teaching geography. Designed to aid the teacher in the improvement of geographic instruction in the elementary and secondary schools as well as in higher education.
- 521 **Cultural Geography** ..... 3 hours  
PREREQ: Permission  
The philosophical basis of human and cultural geography; interpretation of the cultural landscape.
- 531 **Geography of Agriculture** ..... 3 hours  
PREREQ: Permission, and Geog. 313, or Econ. 313  
A systematic study of the characteristics of agriculture on a world-wide basis.
- 541 **Seminar in Problems of Political Geography** ..... 3 hours  
PREREQ: Permission and Geog. 393  
Case studies in land boundaries, territorial waters, and in population aspects of boundary problems.

- 551 **Geomorphology** ..... 3 hours  
 PREREQ: Geog. 396, 117, or 107. Permission  
 A seminar and lecture course on the current concepts and controversies in the field of landform studies. Discussion will emphasize classic ideas as well as the more modern concepts of climatic, dynamic, and quantitative geomorphology. Some study of Quaternary chronology will be necessary. Several optional Saturday field trips.
- 555 **Physiography of North America** ..... 3 hours  
 PREREQ: Geog. 107 (104), or 117, or 118  
 A study of the landforms regions of North America as related to the whole study of geography by means of a systematic analysis of geomorphic patterns.
- 558 **Soils** ..... 3 hours  
 PREREQ: Geog. 106, or 107 (104)  
 A synthesis of the concepts of the morphology, classification, and distribution of soils with some emphasis on environment and genesis.
- 561 **Field Geography** ..... 3 hours  
 PREREQ: Permission  
 A systematic discussion of techniques for studying and analyzing terrain features, land use characteristics, and the nature of their patterns as a part of the whole geographic environment.
- 565 **Land Use** ..... 3 hours  
 PREREQ: Geog. 412  
 A field course designed to investigate and understand through urban field work, land use patterns in urban and rural areas by studying the social, physical, and economic factors which tend to shape the land use of a given place.
- 567 **Cartographic Methods** ..... 3 hours  
 PREREQ: Geog. 353  
 Teaches the student proper use of drawing instruments, effective map layout and exposure to the latest cartographic techniques, leading to a high level of competence in the design and interpretation of maps.
- 571 **Population Seminar** ..... 3 hours  
 PREREQ: Permission  
 The significance of differences from place to place in the number, kind, and qualities of human inhabitants and changes through time.
- 575 **Seminar in Regional Geography** (3 to 6 credits, maximum 3 per semester except foreign country field work) See similar course in UN-L 384.
- 580 **Independent Study in Topics on Urbanism** ..... 1 hour per semester to 3  
 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Political Science, and Sociology.)  
 Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism.
- 581 **Urban Seminar in Metropolitan Planning and Development** ..... 3 hours  
 PREREQ: Geog. 412 or recommendation from Pol. Sci., Soc., or Econ. departments  
 An overview of the present status of planning in metropolitan areas with special emphasis on structure of planning departments, comprehensive plans, and problems of annexation (Same as Pol. Sci. 581)
- 583-584 **Interdisciplinary Seminar on the Urban Community** 3 hours per sem. to 6  
 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Political Science and Sociology)  
 An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus.
- 585-586 **Urban Economics\*** ..... Each 3 hours  
 PREREQ: At least 6 hours of upper division course work in economics or permission  
 An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution. Separate credit may be received for each course.
- 591-592 **General Seminar** ..... Each 1 hour  
 Review of current research by geographers including national and international associations and initial thesis proposal.

- 598-599 **Urban Regional Research\*** ..... Each 3 hours  
 PREREQ: Graduate enrollment in the Master of Science in economics program and acceptance by a graduate adviser  
 Used in candidates for the Master of Science Degree in economics in lieu of a Master's thesis. A study consisting of urban economic problems, employing research techniques. Students do independent research, consulting with adviser, and submitting completed report to a departmental committee.
- 601-602 **Thesis** ..... Each 3 hours  
 Independent research project written under the supervision of an adviser.
- \* Cross listed in economics.

## HISTORY (HIST)

### Graduate Faculty Members:

Professors Frederick W. Adrian, Paul L. Beck, Jo Ann Carrigan, Ert J. Gum, (Emeritus) Roy M. Robbins, A. Stanley Trickett (Chairman);  
 Associate Professors Harl A. Dalstrom, Richard A. Overfield, William Petrowski;  
 Assistant Professors Dale Gaeddert, William C. Pratt, Jacqueline D. St. John

### Master of Arts

The program for the Master of Arts degree in History will usually be arranged to conform to one of the following general patterns:

- I. 24 semester hours of selected and approved graduate course work in History, in which 15 semester hours will be in either (a) American History or (b) non-American History. The remaining nine selected and approved hours will be in graduate course work in History in the other of the two broad areas indicated.
  - II. A major of 15 semester hours of selected and approved graduate course work in History, plus an additional nine semester hours in approved graduate course work in a related field of study.
- In either program of study a thesis, not to exceed six semester hour in independent study, is required under the direction of the major adviser.

### Course Descriptions

- 401 **History of Science to 1700** ..... (I) 3 hours  
 PREREQ: Hist 151-152 or a major in a department of science, mathematics, or general science.  
 A survey of the development of scientific ideas and techniques from antiquity to the beginning of modern science.
- 402 **History of Science since 1700** ..... (II) 3 hours  
 PREREQ: Hist 151-152 or a major in a department of science, mathematics, or general science.  
 A survey of the historical and intellectual development of modern science and its relation to technology, society, and social thought.
- 411 **American Social and Intellectual History to 1865** ..... 3 hours  
 PREREQ: Hist 111-112  
 Primarily a non-political approach to American History, this course will examine significant topics in American thought and society.
- 412 **American Social and Intellectual History Since 1865** ..... 3 hours  
 PREREQ: Hist 111-112  
 Primarily a non-political approach to American History, this course will examine significant topics in American thought and society.
- 413 **The Revolutionary Era, 1763-1789** ..... (I) 3 hours  
 PREREQ: Hist. 111 and 112  
 An analysis of the forces which led to the American Revolution and an examination of some of the problems which arose as a result of the separation from England.

- 414 **Early Federal Period, 1789-1815** ..... (II) 3 hours  
PREREQ: Hist 111 and 112  
A study of the growth and development of the American nation during the formative years under the Constitution.
- 416 **The Jacksonian Era** ..... (I) 3 hours  
PREREQ: Hist. 111 and 112  
An interpretive study of the middle period of American history.
- 418 **Civil War and Reconstruction** ..... (II) 3 hours  
PREREQ: Hist. 111 and 112  
The background of the conflict, the years of the war and the problems of reshaping the Union in the years that followed.
- 424 **The Emergence of Modern America: 1877-1901** ..... 3 hours  
PREREQ: Hist. 111-112 or permission of instructor  
A study of a transitional period in American history, this course considers the importance of industrialization, urbanization, immigration, and the emergence of the United States as a significant world power.
- 427 **Twentieth Century America to 1932** ..... (I) 3 hours  
PREREQ: Hist. 111 and 112  
A study of the history of the United States from the end of the nineteenth Century to the election of Franklin D. Roosevelt to the Presidency in 1932.
- 428 **Twentieth Century America, 1933 to Present** ..... (II) 3 hours  
PREREQ: Hist. 111 and 112  
A study of the history of the United States from the election of Franklin D. Roosevelt to the Presidency at the present.
- 429 **Ideas in Twentieth Century America** ..... (II) 3 hours  
PREREQ: Hist. 111 and 112  
An analysis of some of the more important ideas which have had influence in recent America.
- 433 **American Constitutional History to 1860** ..... (I) 3 hours  
PREREQ: Hist. 111 and 112  
A history of constitutional theory and practice in the continental North American colonies of England and in the United States prior to 1860.
- 434 **American Constitutional History since 1860** ..... (II) 3 hours  
PREREQ: Hist. 433 or permission of instructor.  
A history of constitutional theory of practice in the United States from 1860 to the present.
- 442 **History of American Science** ..... 3 hours  
PREREQ: History 111-112 or a major in a department of science, mathematics, or general science.  
A study of the origins, development, and nature of American science and its relations with technology, social thought, and government.
- 443 **American Urban History to 1870** ..... 3 hours  
PREREQ: Hist 111 and 112  
Historical survey of urban development in the United States from the colonial period through the 1860's; urban society, problems, institutions; role of cities in national history; American ambivalence toward cities.
- 444 **American Urban History Since 1870** ..... 3 hours  
PREREQ: Hist 111 and 112  
American urbanization from 1870's to the present; influence of technology, transportation, industry, immigration; urban politics and reform movements; emergence of metropolitan America and problems of the contemporary super-city.
- 447 **History of American Medicine and Public Health** ..... 3 hours  
PREREQ: Hist 111 and 112  
Analysis of the relationship and interaction of medical thought and practice, public health problems and institutional development, and the changes in American society and culture from the 17th to the 20th century.
- 451 **Intellectual History of Modern Europe: Seventeenth and Eighteenth Centuries** ..... (I) 3 hours  
PREREQ: Hist. 151 and 152  
Intellectual History of Modern Europe from the beginning of the seventeenth century to the French Revolution.

- 452 **Intellectual History of Modern Europe: The Revolutionary Age to the Present** ..... (II) 3 hours  
PREREQ: Hist. 151 and 152  
Intellectual History of Modern Europe from the French Revolution to the present.
- 453 **Age of the Reformation** ..... (II) 3 hours  
PREREQ: Hist. 151 and 152  
A study of European society during the critical years following the Renaissance.
- 454 **The Age of Absolutism** ..... (I) 3 hours  
PREREQ: Hist. 151 and 152  
The emergence of new power relationships on the European Continent after the religious wars of the sixteenth century with an emphasis upon the political, military and cultural factors that led to the French hegemony and the secularization of European politics.
- 455 **Age of the Enlightenment** ..... (I) 3 hours  
PREREQ: Hist. 151 and 152  
A study of the politics, economics, and culture of eighteenth century Europe and of the cause of the French Revolution.
- 456 **The French Revolution and Napoleonic Era: 1789-1815** ..... (I) 3 hours  
PREREQ: Hist. 151 and 152  
A study of Revolutionary France and the Napoleonic Empire as an integral part of the Age of Revolution with emphasis upon its causes, development, contributions and reasons for the ultimate collapse of the Empire.
- 457 **Nineteenth Century Europe, 1815-1870** ..... (I) 3 hours  
PREREQ: Hist. 151 and 152  
An advanced study of what has happened in Europe since 1815 with a view to exposing the consequences of such events.
- 458 **Nineteenth Century Europe 1840-1890** ..... 3 hours  
PREREQ: Hist. 151-152  
An advanced interpretive analysis of the political and cultural development of Europe from the Revolutions of 1848 to 1890.
- 461 **Tudor and Stuart England** ..... (II) 3 hours  
PREREQ: Hist 261 and 262 or (with permission of instructor) Hist 151 and 152  
A study of England under the Tudors, when the English people rose magnificently and experienced a Golden Age, and the Stuarts then cast off the last remnants of medieval things and formed new institutions foreshadowing those of our world of today.
- 462 **England in the Eighteenth and Nineteenth Centuries** ..... (II) 3 hours  
PREREQ: Hist 261 and 262 or (with permission of instructor)  
Hist. 151 and 152  
A study of the change and development in Great Britain from 1714 to 1914.
- 463 **English Constitutional History to 1485** ..... (I) 3 hours  
PREREQ: Hist. 261 and 262 or (with permission of instructor)  
Hist. 151 and 152  
The development of the legal and governmental institutions of the English-speaking people to 1485, including England's central and local governments.
- 464 **English Constitutional History Since 1485** ..... (II) 3 hours  
PREREQ: Hist. 261 and 262 or (with permission of instructor)  
Hist. 151 and 152  
The development of the legal and governmental institutions of the English-speaking people since 1485, including British central and local government and the governments of the member states of the Commonwealth and of the more important colonies.
- 474 **Nineteenth-Century Intellectual History of Russia** ..... 3 hours  
PREREQ: Hist. 151-152, Hist. 271-272, or Permission of instructor  
A Pro-seminar emphasizing the nineteenth-century revolutionary tradition, prototypes, ideology and impact upon Russian society.
- 477 **Europe in Crisis: 1890-1932** ..... 3 hours  
PREREQ: Hist. 151-152 and junior standing  
A study of the conditions and forces immediately precedent to World War I, the war itself, the peace following the war, and the rise of the modern dictatorships.



- 478 **Europe in the Global Age: 1933 to the Present** ..... 3 hours  
 PREREQ: Hist. 151-152 and at least junior standing  
 A study of the ever increasing tensions between the fascist and communist dictatorships and the Western democracies, World War II, the resultant dislocation of power and the emergence of the "Balance of Terror".
- 501 **Advanced Research Project in History** ..... (I,II,S) 1-5 hours  
 PREREQ: Acceptance as a graduate major or minor in history and permission of the department head and the instructor.  
 Special problems in advanced work in history, arranged individually with graduate students.
- 503 **Historical Research** ..... (I) 3 hours  
 PREREQ: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 493, or equivalent).  
 The critical method in collecting and organizing historical materials; the processes of verification, evaluation, and organization of facts; the problems of writing: documentation, styling, and printing the product.
- 506 **Great American Historians** ..... (II) 3 hours  
 PREREQ: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 496, or the equivalent).  
 A survey of the history of American historical writing from colonial times to the present. Reports on selected readings.
- 507 **Great European Historians** ..... (I) 3 hours  
 PREREQ: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 497, or equivalent).  
 A survey of the History of European historical writing from Homer to Toynbee. Reports based on selected readings.

The following seminars lay stress on individual research on significant problems as indicated by the titles. An introduction to bibliography and demonstration of the methods of historical research will be incorporated in each seminar.

PREREQ: Acceptance as a graduate major or minor in history and permission of the instructor. .... Each 3 hours

- 510 **Seminar in Early American History** ..... (I)  
 512 **Seminar in American History: The Jacksonian Era** ..... (I)  
 517 **Seminar in American History: The Frontier** ..... (II)  
 522 **Seminar in American History: Civil War and Reconstruction** ..... (I)  
 532 **Seminar in Recent American History** ..... (I)  
 535 **Seminar in Local History: Nebraska and the Great Plains** ..... (II)  
 536 **Twentieth Century Diplomatic History of the United States History** (II)  
 540 **Seminar in American Economic History (to 1865)** ..... (I)  
 541 **Seminar in American Economic History (Since 1865)** ..... (II)  
 542 **Seminar in United States Public Land Policy and Conservation** ..... (I)  
 551 **Seminar in Early Modern European History** ..... (II)  
 553 **Seminar in European History: The Revolutionary Age** ..... (II)  
 554 **Seminar in European History: The Napoleonic Era: 1800-1815** ..... (II)  
 555 **Seminar in Nineteenth Century European History** ..... (I)  
 556 **Seminar in Twentieth Century European Diplomatic History** ..... (I)  
 558 **Seminar in World History: Military History and Policy** ..... (II)  
 563 **Seminar in Eighteenth Century British History** ..... (II)  
 565 **Seminar in British History: The Era of Reform** ..... (II)  
 569 **Seminar in Contemporary British History** ..... (II)  
 601 **Thesis** ..... (I) Each 3 hours  
 602 **Thesis research project written under the supervision of an adviser.** (I)

The following 300-level courses in history are open to students for graduate credit with special assignments: 311, 312, 313, 315, 316, 333, 341, 351, 352, 353, 354, 355 and 364.

## MATHEMATICS (MATH)

Graduate Faculty Members:

Professor Paul A. Haeder (Chairman);

Associate Professors John P. Maloney, Keith P. Smith;

Assistant Professors Barbara E. Buchalter, J. Scott Downing, Joseph A. Frievald, Margaret Gessaman.

Admission Requirements: An applicant is usually expected to have completed 15 acceptable credits in undergraduate mathematics beyond calculus, and to have an overall average of B or better during the last two undergraduate years.

### Master of Arts

To complete the Master of Arts degree in mathematics, the student must present thirty hours of work in mathematics and complete a thesis for which up to six hours of credit may be applied toward the thirty hours. He must include mathematics courses 411-412, 423-424, and 427 in his program if he has not had the equivalent courses as an undergraduate. All courses must carry a number of 400 or above and at least 18 hours must carry a number of 500 or above. Mathematics courses 523, 524, and 562 are required in the program.

### Master of Science

The course requirements may be met by completing thirty-six semester hours of work, at least twenty-four of which must be in mathematics. At least eighteen semester hours of work in mathematics must be in courses numbered 500 or above. Courses in mathematics 411-412, 423-424 and 427 must be completed if not taken prior to entering graduate school. Math 523-524 and Math 562 are required. The student must pass a final written comprehensive examination.

### Course Descriptions

The 300 level course listed are open for graduate credit to students who do not seek an advanced degree in mathematics.

### Computer Sciences

- 330 **Numerical Methods** ..... (II) 3 hours  
 PREREQ: Math 196, 211 and Computer Language  
 Solution of equations, polynomial approximation difference calculus, interpolation, quadrature, initial value problems from ordinary differential equations and matrix inversion.
- 332 **Introduction to the Theory of Information Storage and Retrieval** ..... (II) 3 hours  
 PREREQ: Math 191, 211 and CS 230.  
 List processing languages, theories of file organization, theories of system design, information retrieval, applications.
- 430 **Linear Programming** ..... (I) 3 hours  
 PREREQ: CS 322 or equivalent  
 An introduction to linear programming and applications.
- 432 **Introduction to System Programming** ..... (II) 3 hours  
 PREREQ: CS 322 or equivalent.  
 Input-output and storage systems, structures and transformations of data basis, assembly and executive systems.
- 470 **Introduction to the Theory of Compilers** ..... 3 hours  
 PREREQ: CS 322 or equivalent  
 Assemblers, interpreters, compilers, particular languages studied include:  
 a) sudos, b) snobol, c) algol.

## Mathematics

- 311 **Differential Equations** ..... (I,II) 3 hours  
PREREQ: One year of calculus  
Methods of solving ordinary differential equations with applications to geometry and physics. The linear equations are emphasized.
- 353 **Probability and Statistics I**  
354 **Probability and Statistics II** ..... (I,II) Each 3 hours  
PREREQ: Math 197  
Events and probabilities, dependent and independent events, random variables, discrete distributions, absolutely continuous distributions, expectation and limit theorems, point estimation, the multivariate normal distribution, testing of statistical hypotheses, confidence intervals.
- 360 **Introduction to Topology** ..... (II) 3 hours  
PREREQ: Math 196  
Theory of sets, topological spaces, metric spaces, topological properties.
- 364 **Projective Geometry** ..... (I) 3 hours  
PREREQ: Math 195 or equivalent  
Duality, perspectivity, harmonic sets, double ratio, conics and projective coordinates dependence and independence of sets of points and sets of lines, matrices and determinants, pole and polar, polar reciprocity in respect to a conic, classical theorems.
- 411 **Abstract Algebra**  
412 **Abstract Algebra** ..... (I,II) Each 3 hours  
PREREQ: Six hours of mathematics 300 or above. Math 411 required for Math 412  
An introduction to modern algebra; congruences, groups, fields, linear transformations and matrices.
- 423 **Mathematical Analysis**  
424 **Mathematical Analysis** ..... (I,II) Each 3 hours  
PREREQ: Math 311 or equivalent  
Topology of Euclidean space, continuity, differentiation, Riemann-Stieltjes integration sequences and series. Math 423 required for Math 424.
- 427 **Complex Variables** ..... (I,II) 3 hours  
PREREQ: Math 423 or Advanced Calculus  
Differentiation, integration and power series expansions of analytic functions, conformal mapping, residue calculus and applications, analytic continuation, singularities and representations of analytic functions.
- 429 **Theory of Ordinary Differential Equations** ..... 3 hours  
PREREQ: Math 311 (Differential Equations) and Math 423.  
Power series solutions, Green's functions, existence and uniqueness theorems, plane autonomous systems, Sturm-Liouville systems, eigenfunction expansions.
- 433 **Operational Mathematics** ..... (I) 3 hours  
PREREQ: Math 311  
Laplace transform and properties, applications, Inversion integral, heat conduction problems, Sturm-Liouville systems, Fourier transforms.
- 441 **Introduction to the Foundations of Mathematics** ..... 3 hours  
PREREQ: Graduate classification  
Logic, axiom systems, set theory, groups, the real number system, metamathematics.
- 451 **Theory of Numbers** ..... 3 hours  
PREREQ: 3 semesters of college mathematics including 1 year of calculus  
Congruences, quadratic reciprocity, diophantine equations, continued fractions, and prime number distribution.
- 460 **Tensor Analysis** ..... 3 hours  
PREREQ: Math 311 or equivalent  
E-Systems, Determinants, and Review of Vector Analysis, Surface Theory, Tensor and Extensor Algebra, Applications.
- 511 **Advanced Topics in Algebra I**  
512 **Advanced Topics in Algebra II** ..... (I,II) Each 3 hours  
PREREQ: Math 411  
Vector spaces, linear transformations, theory of a single linear transformation, sets of linear transformations, bilinear forms, Euclidean space, unitary space, products of vector spaces.

- 523 **Theory of Functions of Real Variables**  
524 **Theory of Functions of Real Variables** ..... Each 3 hours  
PREREQ: Math 423 or Advanced Calculus  
Real number system, convergence, continuity, bounded variation, differentiation, Lebesgue-Stieltjes integration, abstract measure theory, the  $L_p$  spaces.
- 525 **Partial Differential Equations** ..... (II) 3 hours  
PREREQ: Math 423 and Math 311  
Linear and nonlinear first order equations, self-adjoint elliptic equations, linear integral equations, eigen-functions, and boundary value problems.
- 526 **Functional Analysis**  
527 **Functional Analysis** ..... Each 3 hours  
PREREQ: Math 427, 523, 562, or permission of instructor  
Semester I: Normed Linear Spaces and Operators, Dual Spaces, Linear Topological Spaces, Weak Topologies, Convex Sets, Completely Continuous Operators, and Applications. Semester II: Standard Spaces, Hilbert Spaces, Integration in Banach Spaces, Spectral Theory, Applications.
- 535 **Theory of Analytic Functions**  
536 **Theory of Analytic Functions** ..... Each 3 hours  
PREREQ: Math 423, 424, or equivalent  
Complex number, analytic and elementary functions, complex integrations: calculus of residues, entire and meromorphic functions, Normal families, and conformal mappings.
- 545 **Calculus of Variations** ..... 3 hours  
PREREQ: Math 423-424  
An introductory course devoted to the classical theory and problems, such as the Brachistochrone problem and problems in parametric form.
- 560 **Differential Geometry** ..... (I) 3 hours  
PREREQ: Math 423  
Differential manifolds, integral calculus on manifolds, lie groups, differential geometry of Euclidean space.
- 562 **Introductory Topology**  
563 **Introductory Topology** ..... Each 3 hours  
PREREQ: Permission of instructor  
Set theory, topological spaces, convergence, continuity metric spaces and metrization, simplicial homology theory.
- 598 **Graduate Seminar** ..... (I,II) 1-3 hours  
PREREQ: Permission of instructor  
A graduate seminar in mathematics.
- 601 **Thesis**  
602 **Thesis** ..... (I,II) Each 3 hours  
PREREQ: Permission of department chairman

## PHYSICS (PHYS)

## Graduate Faculty Members:

Professor John G. McMillan (chairman)  
Associate Professor Raymond A. Guenther;  
Assistant Professor John W. Flocken

Graduate physics courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

## Course Descriptions

- 301 **Elements of Electronics** ..... (I or II) 3 hours  
PREREQ: Math thru Trig., and Physics 112 or 212  
The background of theory, operation, and practice of electronic devices and circuits particularly as they apply to scientific instrumentation. Both solid state and vacuum tube principles and circuits are involved.
- 301-L **Electronics Laboratory** ..... (I or II) 1 hour
- 302 **Optics** ..... (I or II) 3 hours  
PREREQ: Math 196 and Physics 112 or 212  
The nature of light energy as disclosed through studies of geometrical optics, physical optics and quantum optics.

- 302-L Optics Laboratory .....(I or II) 1 hour
- 375 Electricity and Magnetism I .....(I) 3 hours  
PREREQ: Calculus, Physics 325, or permission  
An advanced discussion of electrostatics and magnetostatics as well as A.C. theory.
- 375-L Laboratory for Electricity and Magnetism I .....(I) 1 hour
- 376 Electricity and Magnetism II ..... 3 hours  
PREREQ: Physics 375  
A course in electrodynamics. Topics include Maxwell's Equations and methods for their solution, boundary conditions, as well as energy, momentum, and transformations of the fields.
- 375-L Laboratory for Electricity and Magnetism II .....(II) 1 hour
- 385 Heat and Thermodynamics .....(I or II) 3 hours  
PREREQ: Calculus and Physics 112 or 212  
Principles of Heat and Temperature Measurement, Phase Diagrams, Calorimetry, Thermodynamics, Temperature Scales, Thermal Analysis.
- 405 Solid State .....(I or II) 3 hours  
PREREQ: Calculus and Physics 325 or permission  
Behavior of materials in the solid state as concerns Energy Levels, Wave Mechanics, Optical and Electrical Phenomena.
- 412 Modern Physics .....(I or II) 3 hours  
PREREQ: Calculus and Physics 112 and 212  
Recent developments concerning the nature of matter, radiation, and space including relativistic effects and the dualistic behavior of particles and waves.
- 412-L Modern Physics Laboratory .....(I or II) 1 hour
- 414 Nuclear Physics .....(I or II) 3 hours  
PREREQ: Calculus and General Physics 112 or 212  
Methodology and principles of nuclear science, nuclear structure, artificial and natural radioactivity, isotopes, tracer, techniques, radiation health physics, reactor theory.
- 414-L Nuclear Physics Laboratory .....(I or II) 1 hour
- 435 Descriptive Astronomy .....(I or II) 3 hours  
PREREQ: General Physics and/or General Chemistry  
Astronomy course designed primarily for Junior and Senior High School teachers of science or for science majors desiring to broaden their background. Includes historical highlights, Newtonian mechanics, solar system, meteors, physics or starlight, star, star systems, and stellar evolution.
- 455 Quantum Mechanics .....(I or II) 3 hours  
PREREQ: Calculus, Physics 325 or permission  
Basic quantum phenomena such as black body radiation, photoelectric effect, Compton scattering, and barrier penetration. Course includes the uncertainty principle, and solutions of various problems such as the potential box, potential step, and the harmonic oscillation by use of the Schroedinger equation. Applications will be considered for the Hydrogen atom and to simple molecules and crystals.
- 492 Modern Developments in Physics .....(I or II) Each 3 hours
- 493 PREREQ: General Physics 112 or 212  
A resume of the most important discoveries, changes and new concepts gleaned from the last decade of research in physics. Superconductivity, lasers, masers, superfluidity, ultra large magnetic fields, space plasmas, nuclear fusion, power, etc. Designed for updating physical science concepts for science majors and for science teachers.
- 495 Problems in Physics .....(I,II,S) Each 1-3 hours
- 496 PREREQ: General Physics and permission of instructor  
Individual laboratory and/or library work in some field of energy.

### POLITICAL SCIENCE (POL. SCI.)

#### Graduate Faculty Members:

Professors W. C. B. Lambert, Harry W. Reynolds, David C. Scott  
(Chairman), William T. Utley;  
Associate Professors H. Carl Camp, Orville D. Menard;  
Assistant Professor Bernard D. Kolasa.

An applicant for admission to the Master of Arts or Master of Science degree program in Political Science must present as a prerequisite a minimum of fifteen undergraduate semester hours of Political Science or their equivalent as determined by the department admission committee.

#### Master of Arts

*Degree Requirements:* The course program must include twelve hours of the required thirty hours at the 500 level exclusive of thesis hours. The remaining course hours are elective but must be planned in conference with the student's academic adviser to meet individual interests and needs.

#### Master of Science

*Degree Requirements:* For the Master of Science with a major in Political Science, eighteen hours of the required thirty-six hours must be at the 500 level. The remaining hours are elective, but must be planned in conference with the student's academic adviser to meet individual interests and needs.

#### Master of Public Administration

This is a professional graduate degree offered in the Department of Political Science which is designed: (1) to prepare students for careers in the public service—national, state, or local; (2) for research or teaching in this field; (3) for those already in the public service who are seeking professional training.

The general prerequisite for admission to the M.P.A. program is a Bachelor of Arts or Bachelor of Science degree or equivalent.

Administrators are required for a wide variety of governmental programs and students in the M.P.A. program will likely come from widely differing backgrounds. Some may come from current public employment while others may enter with degrees in the social sciences, engineering, business administration, or the humanities.

If the student's undergraduate preparation in the social sciences is insufficient, additional preliminary may be prescribed which he must complete before he is accorded unconditional admission. These additional courses do not carry graduate credit, but other courses for graduate credit may be taken simultaneously.

#### *Degree Requirements:*

1. Thirty-six semester hours of course work plus an internship in a public agency for 8 to 12 months (unless excused because of prior experience).
2. A core of eight required courses plus an optional field of four additional courses.
3. Eighteen hours of the course work must be at the 500 level.
4. A thesis is not required unless the internship has been waived.
5. A comprehensive final examination both written and oral is required.

#### Course Descriptions

##### Political Science

- 403 The Presidency ..... 3 hours  
The rise of the institution from Washington to the present, to the position and prestige it holds and how the President uses this power and prestige to influence Congress, the courts, and the public.
- 404 The Legislative Process ..... 3 hours  
A comprehensive study of the legislative process of the Congress and state legislatures. The major emphasis is on legislative institutions, processes and behavior.

- 405 **The Judicial Process** ..... 3 hours  
This is a course in the administration of justice. It examines the Federal and State courts with respect to their powers, judicial selection, the bar, and the reform movements in the most basic of all of man's objectives, "The pursuit of justice."
- 410 **Comparative State Politics** ..... 3 hours  
A comparative analysis of the structure and function of American state governments. Institutional aspects will be examined, but primary emphasis will be placed on the policy determination process and the significant variables which pattern this process.
- 412 **Public Opinion and Political Behavior** ..... 3 hours  
Analysis of the political socialization process as it relates to opinion formulation and participation and the effects of this process on the operation of the political system.
- 418 **Constitutional Law I** ..... 3 hours  
The first semester of a two-semester course in American Constitutional Law. It seeks to familiarize the student with the background of the American Constitutional system, the nature of the judicial process and the role of the United States Supreme Court in the development of the institutions and powers of the American Federal System.
- 419 **Constitutional Law II** ..... 3 hours  
The second semester of the American Constitutional Law course. It focuses on the role of the United States Supreme Court in delineating and defining the political and civil rights guaranteed in the United States Constitution.
- 421 **Foreign Policy of the U.S.S.R.** ..... 3 hours  
A study of the foreign policy of the U.S.S.R., with emphasis on developments since 1945. Internal and external influences on Soviet foreign policy, the processes of foreign policy making, and the relations among members of the Communist camp also will be considered.
- 423 **National Security Policy** ..... 3 hours  
The processes and the machinery of formulating national security policy and the influences involved. Special emphasis is given to demonstrating the interrelationships among political, military, technological, domestic and international factors.
- 426 **International Law of Peace** ..... 3 hours  
A basic course in the broad curriculum of international politics. It seeks to introduce the student to the continuing morality and law which is accepted by the international community and according to which it seeks to function in its relations as sovereign states. The aspects of the Law of War are excluded from this treatment.
- 428 **Inter-American Politics** ..... 3 hours  
Analysis of the role of Latin American states in the international political arena. Emphasis upon developing applying and testing an explanatory theory of international politics through the study of the Inter-American system: the regional institutional and ideological environment, power relations, policies, and contemporary problems.
- 431 **Political Theory I** ..... 3 hours  
Reviews and analyzes the leading political theories of Western Man from the Hebrews and Greeks to the mid-17th Century.
- 432 **Political Theory II** ..... 3 hours  
Continues the review and analysis of the leading political theories of Western Man begun in Pol. Sci. 431, bringing the study down to the French Revolution.
- 433 **Political Theory III** ..... 3 hours  
Continues the review and analysis of the leading political theories of Western Man begun in Political Science 431 and 432 (Political Theory I and II), bringing the study down to the present day.
- 434 **Political Theory IV** ..... 3 hours  
An over-view and analysis of the dominant political thoughts and ideas that have been present in American thinking from the days of the Puritans to today, and the individuals who held them.
- 435 **Democracies** ..... 3 hours  
A basic study of theory, practice and practitioners of political democracy, its roots, development, present application and problems, and future.

- 436 **Dictatorships** ..... 3 hours  
A basic study of theory, practice and practitioners of political dictatorship, its roots, development, major 20th century application and bestiality, and threats to man.
- 437 **Communism** ..... 3 hours  
The Marxism message, its use as an impulse to political power, its world-wide extension, and the threat it poses for the world in the hands of the Soviet Union and others.
- 450 **Government and Politics of Great Britain** ..... 3 hours  
A comprehensive study of British politics and government. Emphasis will be focused on the formal institutions and informal customs and practices of the British political system.
- 452 **Government and Politics of France** ..... 3 hours  
The political heritage, attitudes, institutions, processes, and problems of modern France.
- 454 **Government and Politics of Africa** ..... 3 hours  
A comparative analysis of political problems, institutions, and governmental functions in Africa, primarily Sub-Saharan Africa, with special attention given to the political environment.
- 458 **Government and Politics of the U.S.S.R.** ..... 3 hours  
An analysis of the structure and processes of government in the U.S.S.R. Special attention will be devoted to the role of the Communist Party in Soviet politics and to the ideological and social factors which influence policy formation.
- 500 **Seminar in Political Research Methods** ..... 3 hours  
PREREQ: Permission of graduate adviser  
A critical investigation of the methods of data collection and analysis for political science research.
- 504 **Seminar in American Government and Politics** ..... 3 hours  
PREREQ: Permission of graduate adviser  
A thorough analysis of selected aspects of the structure and function of the American political system with emphasis on individual research by the student.
- 515 **Seminar in Public Law** ..... 3 hours  
PREREQ: Three semester hours in public law or permission of graduate adviser  
Practical methods of research as applied to specifically selected problems in the areas of Administrative, Constitutional, and/or International Law. Problems studied will correspond to those encountered by government employees, officials, and planners at the national, state, and local levels. Emphasis will be varied from semester to semester in accordance with the background and objectives of the students enrolled.
- 520 **Seminar International Politics** ..... 3 hours  
PREREQ: Graduate standing with permission of instructor and department chairman  
An examination of the theoretical frameworks advanced for the systematic study of International Relations, with application to particular problems in international relations.
- 530 **Seminar in Political Theory** ..... 3 hours  
PREREQ: Six hours of Political Theory or permission of graduate adviser  
Analysis of selected topics in normative, empirical and ideological political theory and their impact upon practitioners of politics.
- 550 **Seminar in Comparative Politics** ..... 3 hours  
PREREQ: Graduate standing with permission of the instructor and department chairman  
An examination of the purpose, theories and literature of the field of comparative politics, with evaluation of the theories by application to contemporary political systems.
- 552 **Seminar in Comparative Politics: Emerging Areas** ..... 3 hours  
PREREQ: Permission of graduate adviser  
Research, analysis, and writing on topics of general and particular aspects of the governments, politics, and political problems of emerging nations.

- 580 **Independent Study in Topics on Urbanism** ..... 1 hour per sem. to 3  
 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Geography, and Sociology.)  
 Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism.
- 583-584 **Interdisciplinary Seminar on the Urban Community** ..... 3 hours per sem. to 6  
 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Geography and Sociology.)  
 An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus.
- 585-586 **Urban Economics** ..... Each 3 hours  
 PREREQ: At least 6 hours of upper division work in economics or permission. (Also listed under Economics, Geography, and Sociology.)  
 An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution.
- 590 **Readings in Political Science** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 Specially planned readings in Political Science for the graduate student who encounters scheduling problems in the completion of his degree program, or who has special preparatory needs and who is adjudged by the Political Science Department to be capable of pursuing a highly independent course of study.
- 601-602 **Thesis** ..... Each 3 hours  
 PREREQ: Permission of graduate adviser  
 A research project, written under the supervision of a graduate adviser in the department of Political Science, in which the student establishes his capacity to design, conduct, and complete an independent, scholarly investigation of a high order of originality. The research topic and the completed project must be approved by the student's departmental committee.
- Public Administration*
- 440 **Public Budgeting** ..... 3 hours  
 A study of the processes and procedures involved in making budgets for governmental institutions.
- 441 **Public Personnel Management** ..... 3 hours  
 A study of the personnel process in American governmental administration. The processes and problems of recruiting, structuring, and operating public bureaucracies are examined as well as problems in personnel leadership, neutrality, accountability and performance.
- 443 **Municipal Administration** ..... 3 hours  
 The administrative structure and administrative practices of American cities covering such areas as finance, personnel, public works, public safety, health, utilities, and planning.
- 445 **State Administration** ..... 3 hours  
 A study of the administrative organization and procedures of selected states in the Federal System. Application of the principles of public administration to the level of state governments is made on a comparative basis.
- 540 **Seminar in Public Administration** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 An in-depth study of the relationships existing between the art and science of public administration, on the one hand, and the processes of government on the other. The emphasis is principally on broad categories of political and administrative issues as they condition each other.
- 542 **Seminar in Human Relations and Management in Public Agencies** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 A study of the social and psychological aspects of management as they are pertinent to the operation of governmental agencies.
- 544 **Seminar in Public Organization and Management** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 A study of the principal managerial problems encountered in larger public or governmental bureaucracies.

- 546 **Seminar in Public Personnel Administration** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 This course focuses on the principle consideration affecting the selection and utilization of personnel by government agencies. The emphasis is less in terms of description of processes than in terms of identifying and exploring solutions to problems.
- 548 **Seminar in Public Financial Administration** ..... 3 hours  
 PREREQ: Permission of graduate adviser  
 Financial organization, intergovernmental financial relations, and the administrative and political aspects of budgetary planning and control.
- 581 **Urban Seminar in Metropolitan Planning and Development** ..... 3 hours  
 PREREQ: Geog. 412 or recommendation from Political Science, Sociology, or Economics Department. (Also listed under Geography).  
 An overview of the present status of planning in metropolitan areas with special emphasis on structure of planning departments, comprehensive plans, and problems of annexation.
- 603-604 **Internship** ..... 3 hours each semester  
 Maximum of 6 to be granted upon completion of written report on internship.  
 Internship in some government: national, state, or local.

## PSYCHOLOGY (PSY)

### Graduate Faculty Members:

Professors Robert J. Ellingson, Francis Hurst, John Newton (Chairman), D. T. Pedrini, James Williams;  
 Associate Professors Guenter Rose, Harry L. Saslow, Fred Strider, Richard L. Wikoff;  
 Assistant Professors Kenneth Berry, Kenneth A. Deffenbacher, Norman H. Hamm, Shelton Hendricks, Robert Innes, Clem Kessler, Wendell Kincaid, Richard G. Kohlan, Joseph C. LaVoie, C. Raymond Millimet, W. Allan Smith

**Admission Requirements:** A minimum of 15 undergraduate semester hours of psychology courses including basic statistics and an upper level laboratory course emphasizing the experimental method, data collection, statistical analysis, and report writing. Students who do not meet the above requirements may be provisionally admitted following the Graduate College's policy.

### Master of Arts

To complete the M.A. degree in psychology, the student must present 30 hours of graduate course work in psychology, or 21 hours in psychology plus 9 hours in a related minor field. Up to 6 hours of thesis credit are to be included in this total. The student must choose one course from each of the following four groups. These courses must be completed within the first 16 hours of graduate work.

- I. A. Psychology 504 (Proseminar in Learning)  
 B. Psychology 556 (Proseminar in Development)
- II. A. Psychology 521 (Proseminar in Perception)  
 B. Psychology 523 (Proseminar in Physiological Psychology)
- III. A. Psychology 510 (Proseminar in Analysis of Variance)  
 B. Psychology 511 (Proseminar in Factor Analysis)
- IV. A. Psychology 543 (Proseminar in Personality)  
 B. Psychology 544 (Proseminar in Social Psychology)

The remainder of the student's course work is elective, but must be planned in conference with his academic adviser, in order to meet the individual needs and interests of the student. The student may emphasize one of the following areas: educational, general-experimental, physiological, industrial, quantitative, personality, social, or child psychology. Final determination of a student's plan of study always resides with his

adviser and the department. However, to meet the graduate college requirements, a student must take at least half of his work in courses numbered in the 500 level or above.

#### Master of Science

To complete the M.S. in industrial psychology or the M.S. in educational psychology, the student must present 36 hours of graduate course work in psychology, or 24 hours in psychology plus 12 hours in a related minor field. The student must choose one course from each of the following four groups. These courses must be completed within the first 16 hours of graduate work.

- I. A. Psychology 504 (Proseminar in Learning)
- B. Psychology 556 (Proseminar in Development)
- II. A. Psychology 521 (Proseminar in Perception)
- B. Psychology 523 (Proseminar in Physiological Psychology)
- III. A. Psychology 510 (Proseminar in Analysis of Variance)
- B. Psychology 511 (Proseminar in Factor Analysis)
- IV. A. Psychology 543 (Proseminar in Personality)
- B. Psychology 544 (Proseminar in Social Psychology)

Additional required course work may be designated by the department. This will ordinarily include up to 3 hours of practicum credit. Final determination of a student's plan of study always resides with his adviser and the department. However, to meet the graduate college requirements a student must take at least half of his work in courses numbered in the 500 level or above.

#### Program For School Psychologists

Students holding Master's degrees may be admitted to do additional work leading to recommendation for certification as a school psychologist if they show promise of ability to succeed beyond the Master's level. Application for such admission must be filed with the Director of Admissions, accompanied by credentials and an application fee. Credentials must include two official transcripts for all previous college work, scores for the Graduate Record Examination Aptitude Test and Psychology Test, and a vita including names of individuals willing to write reference letters. Before a final decision is made concerning admission, the applicant must be interviewed by the Chairman and one or more members of the Department of Psychology. If the applicant has not completed a Master's program equivalent to that required for the Master of Science in Educational Psychology, he may be required either to take additional graduate courses or to complete successfully a six-hour qualifying examination in general and educational psychology.

A total of 30 semester hours of work beyond the Master's is required for the recommendation. No more than three hours of practicum credit should be taken during any one semester. For certification of school psychologists, many states require teaching certification or two years of professional work experience in the schools.

Filing of an acceptable plan of study with the graduate office will be required on admission to the program. Students will arrange their programs according to the subject matter areas below. Since individual students may have widely variant backgrounds, considerable flexibility is allowed in choice of specific courses. However, final decision on the appropriateness of a program rests with the Psychology Department.

- I. Psychological Foundations ..... Required: 2 or 3 courses  
These courses are to be a continuation of fundamental psychology courses in learning, experimental psychology, etc., taken during work toward the Master's degree.

#### II. Psychological Methods and Techniques

Required Courses (other courses may be substituted for any of the courses below which may have been completed prior to entrance into the School Psychology program)

- PSYCH 553, Individual Tests: Children & Adolescents
- PSYCH 554, Individual Tests: Adolescents & Adults
- PSYCH 595, Practicum in Psychology  
and either/or
- PSYCH 555, Introduction to Therapeutic Techniques with Children
- PSYCH 557, Behavior Modification

- III. Educational Foundations ..... Required: 2 or 3 courses  
These courses will be selected from departments of special education, counseling and guidance, and/or elementary education. Approval for inclusion in the program must be obtained from the Psychology Department prior to registration.

#### Course Descriptions

- 401 **History of Psychology** ..... 3 hours  
PREREQ: Permission of instructor  
A study through reading and discussion of the significant individual contributors and contributions to the growth of psychology.
- 403 **Psychology of Motivation** ..... 3 hours  
PREREQ: Psychology 213, 301 or 504  
An exploration of the motivation of organisms including methods, concepts, issues, and theories deriving from historical and contemporary research.
- 405 **Computer Concepts in Psychology and the Behavioral Sciences** ..... 3 hours  
PREREQ: An introductory statistics course  
An introductory course emphasizing the applications of computers in the areas of psychology, sociology, and education. Includes a functional description of computers and a discussion of programming languages as well as specific uses.
- 407 **Cognitive Processes** ..... 3 hours  
PREREQ: Psy. 301 or 504  
An exploration of historical and contemporary research and theory concerned with higher cognitive processes including concept formation, problem solving, creativity, memory, and symbolic behavior.
- 413 **Research Design** ..... 3 hours  
PREREQ: Basic statistics  
A methodological approach to research in the behavioral sciences emphasizing the manipulation of psychological variables leading to the control and understanding of psychological phenomena.
- 414 **Nonparametric Statistics** ..... 3 hours  
PREREQ: Basic statistics  
Study of distribution-free statistics with particular emphasis on application of distribution-free tests to research problems in the social behavior sciences.
- 427 **Animal Behavior (Biology 427)** ..... 3 hours  
PREREQ: Psy. 101 and Biology 175 or permission  
Behavior of diverse animals for the understanding of the relationships between nervous integration and the behavior manifested by the organism, as well as the evolution and adaptive significance of behavior as a functional unit.
- 431 **Psychological and Educational Testing** ..... 3 hours  
PREREQ: Psy. 102 or 351  
The use of standardized tests in psychology and education are considered with special regard to their construction, reliability, and validity.
- 433 **Individual Differences** ..... 3 hours  
PREREQ: 9 hours of psychology, including Psy. 101 and Basic Statistics  
A critical study of experimental and statistical investigations of the influence of age, ancestry, sex, physical traits, and environment in causation of individual differences in mental traits.
- 443 **Psychoanalytic Theories of Personality** ..... 3 hours  
PREREQ: Basic Statistics and Psy. 343  
An integrative course designed to acquaint the student with the Freudian and psychoanalytic viewpoints. Research in anxiety, defense mechanisms, sleep, and dreams is emphasized.

- 444 **Abnormal Psychology** ..... 3 hours  
PREREQ: Basic statistics and Psy. 343  
A course designed to examine the aberrant behavior of individuals. Symptoms, dynamics, therapy, and prognosis of syndromes are considered. A research approach is emphasized.
- 445 **Personality Theories** ..... 3 hours  
PREREQ: Psy. 102  
A comparative approach to the understanding of personality theory emphasizing the conflict, fulfillment, and consistency approaches to personality.
- 447 **Advanced Counseling Theory** ..... 3 hours  
PREREQ: Psy. 343 or Ed. 520 or Psy. 445  
This course emphasizes the relation between diagnosis and treatment with a Jungian approach embracing psychology, literature, philosophy, and theology. Readings are emphasized.
- 452 **Introduction to General and Experimental Linguistics (Speech 452)** ..... 3 hours  
PREREQ: Graduate standing in Psy. or Speech or permission. Recommended Psy. 321 or Speech 351  
A broad survey of generative syntax, phonology, and pragmatics and of related material in linguistic and paralinguistic perception, memory, and communication. Designed primarily for students wishing to apply linguistic methods and thought in the behavioral and communication sciences. Laboratory to be arranged.
- 455 **Retardation** ..... 3 hours  
PREREQ: Psy. 431; or basic statistics and Psy. 343 or 445  
This course considers significantly sub-average intellectual functioning originating during the developmental period and associated with impairment in adaptive behavior. Research is emphasized.
- 457 **Advanced Psychology of Childhood and Adolescence** ..... 3 hours  
PREREQ: Basic statistics, Psy. 352 or permission  
A systematic review of the research literature related to the biological, social, and cognitive development of children from conception to adolescence.
- 459 **Psychology of Exceptional Children** ..... 3 hours  
PREREQ: Psy. 343 or 351  
A study of the special problems of children with visual, auditory or neurological impairments, orthopedic anomalies, intellectual retardation or superiority, speech disorders, emotional or social maladjustments, learning disabilities and cultural deprivation; and the characteristic relationships of parents, professionals, and others to these children.
- 461 **Engineering Psychology** ..... 3 hours  
PREREQ: Psy. 101 and permission of instructor  
The methods of experimental psychology are discussed as they relate to problems of designing machines for efficient human use.
- 462 **Psychological Aspects of Industrial Training and Education** ..... 3 hours  
PREREQ: Psy. 362 and Basic Statistics  
A study and application of the theory, techniques, and procedures involved in preparing individuals for their jobs through training and education.
- 463 **Techniques of Programmed Instruction** ..... 3 hours  
PREREQ: Psy. 101 and permission of instructor  
An introduction to methods and technology in construction and use of teaching machine programs, with special emphasis on computer assisted instruction.
- 490 **Problems in Psychology** ..... 1-3 hours  
PREREQ: 15 hours of psy.  
A faculty-supervised research project, involving empirical or library work and oral or written reports.
- 491 **Research Problems in Physiological Psychology** ..... 3-6 hours  
PREREQ: Psy. 323 and permission of instructor  
An individualized introduction to the techniques and methodology used in the physiological psychology laboratory.
- 504 **Proseminar: Learning** ..... 2 hours  
PREREQ: Graduate standing and permission of instructor  
A comprehensive and intensive coverage of the experimental literature on learning in humans and animals.

- 505 **Advanced Seminar in Learning** ..... 3 hours  
PREREQ: Psy. 301 or permission of instructor  
A course considering theorists who have most directly influenced the contemporary psychology of learning.
- 510 **Proseminar: Analysis of Variance** ..... 4 hours  
PREREQ: Graduate standing and permission of instructor  
A course providing a theoretical and practical understanding of inferential statistics emphasizing the analysis of variance model.
- 511 **Proseminar: Multiple Regression and Factor Analysis** ..... 4 hours  
PREREQ: Graduate standing and permission of instructor  
Advanced problems and techniques of correlation and regression are discussed, including: special simple correlation methods and problems, multiple correlation, multiple regression, and factor analysis.
- 520 **Introduction to Counseling Theories (Counseling and Guidance 520)** ..... 3 hours  
PREREQ: Education 490 or department permission  
Study of contemporary theories of counseling, the counseling process and methods.
- 521 **Proseminar: Perception** ..... 2 hours  
PREREQ: Graduate standing and permission of instructor  
A comprehensive and intensive coverage of the experimental literature on perception in humans and animals.
- 523 **Proseminar: Physiological Psychology** ..... 2 hours  
PREREQ: Graduate standing and permission of instructor  
A systematic study of the physiological processes underlying behavior.
- 532 **Tests and Measurements** ..... 3 hours  
PREREQ: Basic Statistics  
A study of the theoretical and practical problems related to the development and use of psychological tests covering such topics as: measurement, test development, standardization, reliability, validity, and interpretation.
- 543 **Proseminar: Personality** ..... 2 hours  
PREREQ: Graduate standing and permission of instructor  
A course considering the effects of personality variables on behavior. A historical, theoretical, psychometric, and experimental approach will be emphasized.
- 544 **Proseminar: Social Psychology** ..... 2 hours  
PREREQ: Graduate standing and permission of instructor  
Examination of theories, research findings and controversies in Social Psychology. Topics will include socialization; person perception; interpersonal attraction; leadership and group effectiveness; attitudes, attitude measurement, and attitude change; intergroup relations; power and social influence. New topics will be added as they become part of the research interests of social psychologists.
- 545 **Experimental Social Psychology** ..... 4 hours  
PREREQ: Psych 213, 345, 301 or 321 with laboratory and permission of instructor  
Acquisition of basic research skills and a working understanding of key philosophical and methodological issues in social research. Each student will develop and implement one or more full scale studies, either by himself or as a part of a small group.
- 550 **Seminar in Communication Theory (Speech 550)** ..... 3 hours  
PREREQ: Basic statistics or permission of instructor  
Analysis of current approaches to the study of communication with emphasis on theoretical models and their application to various professional interests.
- 551 **Advanced Educational Psychology** ..... 3 hours  
PREREQ: Psy. 351  
A study of the principles of learning and testing and their applications to problems of contemporary education, particularly to those problems existing in the classroom.
- 553 **Individual Tests: Children and Adolescents** ..... 4 hours  
PREREQ: 16 graduate hours of psychology including completion of all required courses for the Master's degree and Psy. 431 or 532  
Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing.

- 554 **Individual Tests: Adolescents and Adults** ..... 4 hours  
 PREREQ: 16 graduate hours of psychology including completion of all required courses for the Master's degree and Psy. 431 or 532 Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing.
- 555 **Introduction to Therapeutic Techniques with Children** ..... 3 hours  
 PREREQ: Permission of instructor  
 The purpose of this course is to become familiar with play therapy, a technique for enhancing the adjustment and maturity of children. The history and methods of and the research with play therapy are considered.
- 556 **Proseminar: Developmental Psychology** ..... 2 hours  
 PREREQ: Graduate standing and permission of instructor  
 A comprehensive and intensive coverage of the experimental literature on human and infra-human development.
- 557 **Behavior Modification** ..... 3 hours  
 PREREQ: Psy. 102 and 343, or permission of instructor  
 A course in the techniques, rationale, and research literature of changing behavior through reinforcement procedures. Particular attention will be paid to child behavior including retarded children, behavior problems in school, and the behavior of the mentally disturbed.
- 561 **Seminar in Industrial Psychology** ..... 3 hours  
 PREREQ: Graduate standing and Basic Statistics  
 Intensive study of current problems and research in psychology in industry with particular emphasis on integration of research findings.
- 563 **Personnel Selection and Assessment** ..... 3 hours  
 PREREQ: Basic Statistics, Psy. 532 and permission of instructor  
 A practical course designed to familiarize the student with the procedures used in assessing and selecting people for industrial positions.
- 568 **Clinical Child Psychology for School Psychologists** ..... 3 hours  
 An advanced course in child psychology, with emphasis upon diagnostic classification, refinement of approaches and techniques of assessment, and correction of problem behavior in the school age child. (Cross-listed with Psychiatry 368 at the University of Nebraska College of Medicine.)
- 591 **Topical Seminar in Psychology** ..... 1-3 hours  
 PREREQ: Permission of instructor  
 A discussion of specific advanced topics which will be announced whenever the course is offered.
- 595 **Practicum in Psychology** ..... 1-6 hours  
 PREREQ: Permission of instructor  
 Faculty-supervised experience in an educational agency, clinic or institutional setting. Designed to bridge the gap between the classroom and a job by emphasizing use of previously acquired knowledge in dealing with practical problems.
- 601 **Thesis** ..... Each 1-3 hours
- 602 Independent research project written under supervision of a faculty committee.

### SOCIOLOGY (SOC)

#### Graduate Faculty Members:

Professors George Barger (Chairman), Philip H. Vogt (Emeritus), Wayne Wheeler;

Associate Professor John R. Nye;

Assistant professors William T. Clute, Elaine Hess, Robert B. Simpson;

Graduate Lecturers Harry H. Crockett, Wilfred Logan

Applicants for admission to the graduate program in sociology must present a minimum of 15 undergraduate semester hours in sociology including a course in statistics. Those students lacking the statistics will be required to make up this deficiency during their first year of graduate study.

*Examinations:* Both the M.A. and M.S. (see below) degree programs in sociology require the student to demonstrate proficiency in the subject through successful completion of four comprehensive examinations. Two of these comprehensives—Social Theory, and Methodology and Statistics—are required of all graduate students; the two remaining examinations are selected by the student, in consultation with his graduate adviser, from a list available through the Sociology Office. The examinations are given a minimum of twice annually, and other times as required. Detailed explanations of graduate requirements should be secured through the Sociology Office.

The M.A. degree should be sought by students preparing for college-level teaching and continued academic work; the M.S. degree as preparation for field or action application of sociology.

#### Master of Arts

The student is expected to complete Sociology 501 and a minimum of 21 additional graduate semester hours, including at least nine semester hours of 500-level work. A thesis is required.

#### Master of Science with a Major in Applied Sociology

A student contemplating this degree is expected to complete Sociology 501 and a minimum of 27 additional graduate semester hours, at least nine of which are from the 500-level selection. In addition, the student must complete satisfactorily six semester-hour equivalents of a supervised work practicum related to his academic area of concentration, and write an acceptable report on the experience (students whose career objectives are in the social welfare professions are currently advised to apply for admission to the Graduate School of Social Work at the Lincoln campus).

Detailed requirements for the M.S. in applied sociology should be secured through consultation with the Sociology Office.

#### Course Descriptions

##### *Anthropology*

- 421 **Cultural Anthropology** .....(I) 3 hours  
 PREREQ: Graduate  
 Family, art, war, maintenance, prestige, religion approached as parts of an integrated whole, a way of life of preliterate human society. Illustrations from a number of simple societies, anthropological theories, methods of study.
- 422 **North American Archaeology** .....(I) 3 hours  
 PREREQ: Graduate  
 American Indian culture history in North America, with emphasis on the peopling of the New World, origin and development of New World agriculture, development of Middle American Civilizations and their impact on core areas of village-farming in the continental United States; introduction to archaeological investigation techniques, dating methods, and taxonomic concepts.

##### *Sociology*

- 401 **Social Control of Behavior** .....(I) 3 hours  
 PREREQ: Graduate  
 The social processes by which the person's behavior is adapted to the group. External restraints, roles, self-control. Analysis and measurement of behavior in the context of socially defined "fields."
- 402 **Collective and Exchange Behavior** .....(II) 3 hours  
 PREREQ: Graduate  
 The study of the processes of growth and change within unstable and transitory groups, including crowds and associated phenomena, diffuse collectivities, advertising and propaganda aggregates in mass society, publics, and social movements.



- 403 **Advanced General Sociology** .....(I,II,S) 3 hours  
 PREREQ: Graduate. Not open to anyone who has recent credit in Sociology 101. (DOES NOT CARRY GRADUATE CREDIT IN SOCIOLOGY)  
 A survey of the principles of sociology including interaction, groups, institutions, social organization, and change. Consideration is also given to sociological techniques, major specialties, and classes of data.
- 410 **The Community** .....(I) 3 hours  
 PREREQ: Graduate  
 A basic course in community sociology. Sociological theory and the techniques of empirical research are applied to published studies of communities in the United States and elsewhere. The comparative social scientific method is elaborated as it pertains to data derived from community investigation.
- 412 **Urban Geography (Same as Geography 412)** .....(I,II) 3 hours  
 PREREQ: Graduate  
 A geography of the city from the viewpoint of history, site, and situation, external relations, internal relations, and the comparative study of cities.
- 413 **Sociology of Deviant Behavior** .....(II) 3 hours  
 PREREQ: Graduate  
 A theoretical analysis of the relation of deviant group behavior and subcultures to community standards of conventional behavior as expressed in law and norms.
- 414 **Urban Sociology** .....(I) 3 hours  
 PREREQ: Graduate  
 A course in the sociology of cities and the social characteristics of urban life, stressing its historical, demographic, ecological, social psychological, and institutional aspects. The unique problems of the modern metropolitan complex, both as to effective functioning and as an environment for human beings, are discussed.
- 415 **American Family Problems** .....(I,II) 3 hours  
 PREREQ: Graduate  
 I A theoretical treatment of the family as a social institution outlining the essential functions it provides for its members and the society.  
 II An analysis of failures of function and attendant problems in a variety of American families: parent-youth tension, problems of sexual adjustment, role conflicts, multi-problem families, desertion, divorce, others.
- 451 **Methods of Social Research** .....(I,II) 3 hours  
 PREREQ: Graduate  
 Relationships of theory, method, and the data in sociological investigation. Major techniques and instruments employed in social research, how developed, and where appropriately used. Formulation of research problems, use of statistics in analysis. Practical problems and limitations.
- 462 **Complex Social Organizations** .....(II) 3 hours  
 PREREQ: Graduate  
 Analysis of social structure in complex organizations, processes involved in the integration and disintegration of complex social organizations. An introduction to organizational analysis in medical, military, governmental, educational, and business settings. Implications of large-scale bureaucratization for social functioning.
- 471 **Development of Sociological Theory** .....(I) 3 hours  
 PREREQ: Graduate  
 An intellectual history of sociology as an academic discipline surveying outstanding contributions to its body of theory. Stress is placed on the development of sociology as a science with illustrative materials drawn from the established works of recent decades although backgrounds to these are traced to their ancient and medieval antecedents where applicable.
- 472 **Contemporary Sociological Theory** .....(II) 3 hours  
 PREREQ: Graduate  
 A thorough and detailed presentation of a major theoretical integration of contemporary sociological research and theory with shorter descriptive presentations of alternative positions indicating similarities and differences. Principles of theory construction and a review of major sociological concepts and writers.
- 475 **Social Change** .....(II) 3 hours  
 PREREQ: Graduate  
 A discussion of the theories and the basic models of social change illustrated by use of examples from contemporary and historical data. Emphasis is placed upon understanding causes and effects of social processes current in American society and the response of the individual to these.
- 485 **Sociology of Religion** .....(I) 3 hours  
 PREREQ: Graduate  
 Analysis of religious behaviors from a sociological and social-psychological perspective, and utilizing both theoretical and empirical materials. The class is designed as an introductory approach to the sociology of religion, and the first in a two-step sequence, undergraduate and graduate.
- 491 **Internship in Local Government (Same as Political Science 491)** .....(I,II,S) 2-6 hours  
 PREREQ: Graduate (Also listed under Economics, Geography and History)  
 Internship in Local Government offices: Participation in the policy-making and administrative processes of Local Government; discussions and reports.
- 499 **Independent Study** .....3 hours  
 PREREQ: Graduate  
 Guided reading in special topics under the supervision of a faculty member.
- \*501 **General Seminar in Sociology** .....3 hours  
 PREREQ: Graduate  
 This seminar, required of departmental graduate students, gives a basic orientation to the profession, its leading figures, publications, organizations, and university departments. It emphasizes critical discussion of issues in the discipline and selected substantive problems of sociology.
- \*505 **Seminar in Social Psychology** .....3-6 hours  
 PREREQ: Graduate  
 Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in social psychology selected by the instructor.
- \*510 **Seminar in Applications of Sociology** .....3-6 hours  
 PREREQ: Graduate  
 Sociological theory and method applied to a practical problem of relevance to general social issues.
- \*511 **Social Problems of the Disadvantaged** .....3 hours  
 A survey of the social problems existing in disadvantaged communities. The effects upon individuals of such settings. The subculture of poverty.
- \*512 **Seminar in Social Gerontology** .....3 hours  
 PREREQ: Graduate  
 An interdisciplinary, developmental study of the impact of aging upon individuals and society, including the subsequent reactions of individuals and society to aging with particular emphasis given to changes during the latter half of the life cycle (45+ years). Both theoretical and programmatic implications of aging research are considered.
- \*550 **Seminar in Research Methods** .....3-6 hours  
 PREREQ: Graduate  
 A complete research project carried out under the supervision of an instructor particularly qualified in the area of concern. Students participate in the background work, question formulation, selection of (or construction of) test instruments, data gathering by methods such as interviewing and participant observation, and analysis.
- \*555 **Seminar in the Sociology of Religion** .....3-6 hours  
 PREREQ: Graduate  
 A seminar dealing with religion as a social and cultural phenomenon. The study theme will vary from time to time in keeping with the special interests of the instructor.
- \*560 **Seminar in Social Organization** .....3-6 hours  
 PREREQ: Graduate  
 Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in social organization selected by the instructor.

- \*570 **Seminar in Sociological Theory** ..... 3-6 hours  
Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in sociological theory selected by the instructor.
- \*571 **Population Seminar (Same as Geography 571)** ..... (S) 3 hours  
PREREQ: Permission  
The significance of differences from place to place in the number, kind, and qualities of human inhabitants and changes through time.
- 580 **Independent Study in Topics on Urbanism** ..... 1-3 hours  
PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Geography, and Political Science)  
Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism.
- 583 **Interdisciplinary Seminar on the Urban Community** ..... 3-6 hours  
584 PREREQ: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under Economics, Geography, and Political Science.)  
An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus.
- 585-586 **Urban Economics (See Economics 586)** ..... 3-6 hours  
595-596 **Practicum in Applied Sociology** ..... Each 3 hours  
A practical work experience under supervision which provides opportunity for applying principles from the student's academic area of concentration.
- 601-602 **Thesis** ..... Each 3 hours

### SPEECH (SPCH)

#### Graduate Faculty Members:

Professors John K. Brillhart (Chairman), Elton S. Carter, Edwin L. Clark;  
Associate Professor Donald D. Manson

#### Master of Arts

An applicant for admission to the Master of Arts degree program in speech must present a minimum of 15 undergraduate semester hours beyond the introductory course, including advanced work in the area in which he intends to concentrate his graduate program.

All candidates are required to complete Speech 501, "Introduction to Research in Speech." Students majoring in Theatre must also complete Speech 520, "Dramatic Theory and Criticism"; all others must complete Speech 550, "Theories of Communication." At least 15 hours of the required 30 hours, including thesis, must be courses at 500-level or above. Every candidate must complete a thesis on an approved problem or production.

#### Course Descriptions

- 401 **Advanced Projects in Speech** ..... (I,I,S) Each 1-3 hours  
402 PREREQ: 9 hours of speech in the general area to be studied and permission of department chairman  
Special projects in speech supplementing regular courses; individual research projects; combined study and practicum.
- 410 **Rhetorical Criticism** ..... 3 hours  
PREREQ: 9 hours of speech  
Significant movements in the development of rhetorical criticism from antiquity to the present.

\* As seminar topics change, these course numbers may be repeated in a student's program without implying duplication.

- 411 **Greek and Roman Rhetoric and Oratory** ..... 3 hours  
PREREQ: 9 hours of speech  
The origin and development of rhetorical theory and practice in antiquity.
- 412 **Studies in American Public Address** ..... 3 hours  
PREREQ: 9 hours of speech  
Study of representative American speakers from the Eighteenth Century to the present.
- 420 **History of the Theatre** ..... 3 hours  
PREREQ: Speech 220  
A survey of the great periods of theatrical history and the playwrights, producers and actors who were responsible for this growth and development.
- 421 **Acting: Historical Periods and Styles** ..... Each 3 hours  
422 PREREQ: Speech 321-322 or permission of instructor  
The fundamental theories and practices of major styles of acting from Ancient Greece to the present, including interpretation of outstanding dramatic literature.
- 423 **Scene Design** ..... 3 hours  
PREREQ: Speech 220 and 223  
Principles of composition, perspective and color for the stage; the designer's approach to the play, production of ground plans, elevations and sketches.
- 424 **Stage and TV Lighting** ..... 3 hours  
PREREQ: Speech 220 and 223  
Characteristics and control of light and color and their application to the theatre and television; elementary electricity; lens systems, deflectors; lamps; control systems.
- 426 **Play Direction** ..... (II) 3 hours  
PREREQ: Speech 230 or permission of instructor  
A practicum in play selection, analysis, casting, directing and performing.
- 427 **Costume History and Design** ..... 3 hours  
PREREQ: Speech 227 or permission of instructor  
The history of human adornment from pre-historic to modern man. Theory and practicum in theatrical costume design.
- \*431 **Political Broadcasting** ..... 3 hours  
PREREQ: Speech 230 or Journalism 101 or Political Science 100  
A study of the evolving role of the electronic media in shaping political activities in our contemporary democratic society.
- 434 **Radio and TV Programming and Audience Analysis** ..... 3 hours  
PREREQ: Speech 230 and/or permission of department chairman  
An investigation into the sources of programs, program ideas, and the development and expansion of current program formats. Analysis of audience reaction and projects in informal broadcast audience measurement are part of the course work.
- 435 **Broadcasting and the Public** ..... (II) 3 hours  
PREREQ: Speech 230 or permission of the instructor  
A study of the effects of broadcasting and its relationships to other mass media; emphasis on the sociological, economic, and legislative aspects of the medium.
- 450 **Introduction to General Semantics** ..... (II) 3 hours  
PREREQ: 6 hours speech and 3 hours psychology or permission of instructor  
An introduction to the system of general semantics, considering both limitations and practical applications to perception, thinking, and communicating.
- 451 **Persuasion** ..... (I,I,S) 3 hours  
PREREQ: Speech 101 and 3 hours psychology or sociology or permission  
Basic principles and psychological processes underlying persuasive communication; a review of various source, message, channel, and receiver variables and their influence on communication effectiveness.

- 452 **Introduction to General and Experimental Linguistics** ..... 3 hours  
 PREREQ: Senior or graduate standing in psychology or speech or permission  
 A broad survey of generative syntax, phonology, and pragmatics and of related material in linguistic and paralinguistic perception, memory, and communication. Individual papers required in areas of student interest. Designed primarily for students wishing to apply linguistic methods and thought in the behavioral and communication sciences. Laboratory to be arranged.
- 461 **History and Problems in Speech Education** ..... (II) 3 hours  
 PREREQ: Speech 112 or permission  
 A study of the development of speech as an academic discipline; recent movements in speech and the contribution of quantitative methodology to speech research and education.
- 462 **Directing Forensics** ..... 3 hours  
 PREREQ: Speech 112 or permission  
 To provide students planning to teach speech in high school or college with a philosophy and detailed knowledge of how to direct a forensic program.
- 471 **Advanced Oral Interpretation** ..... 3 hours  
 PREREQ: Speech 171  
 Theories and forms of interpretation from antiquity to the present; preparation and presentation of a recital.
- 501 **Introduction to Research in Speech** ..... (I) 3 hours  
 Basic components, functions, and spirit of research; research methods in the arts and sciences of oral communication; preparation of a thesis proposal.
- 511 **Seminar: Modern Public Address** ..... 3 hours  
 PREREQ: Permission of the instructor  
 Studies in figures, movements and institutions prominent in modern public address. May be repeated.
- 520 **Dramatic Theory and Criticism** ..... 3 hours  
 PREREQ: Speech 220 or permission of instructor  
 For advanced students of dramatic literature. Important dramatic theories and criticism from antiquity to the present.
- 521 **Seminar in Contemporary Theatre Aesthetics** ..... 3 hours  
 PREREQ: Speech 220, Speech 420, and English 252 or permission  
 Research and dialogue in the aesthetic theories and movements in the contemporary theatre. Emphasis on the sources, background, and configuration of theatrical styles in this century.
- 550 **Seminar in Communication Theory** ..... 3 hours  
 PREREQ: Basic statistics or by permission of the instructor  
 Analysis of current approaches to the study of communication, with emphasis on theoretical models and their application to various professional interests.
- 601 **Thesis** ..... 1-3 hours each
- 602 Independent research project written under the supervision of an adviser.

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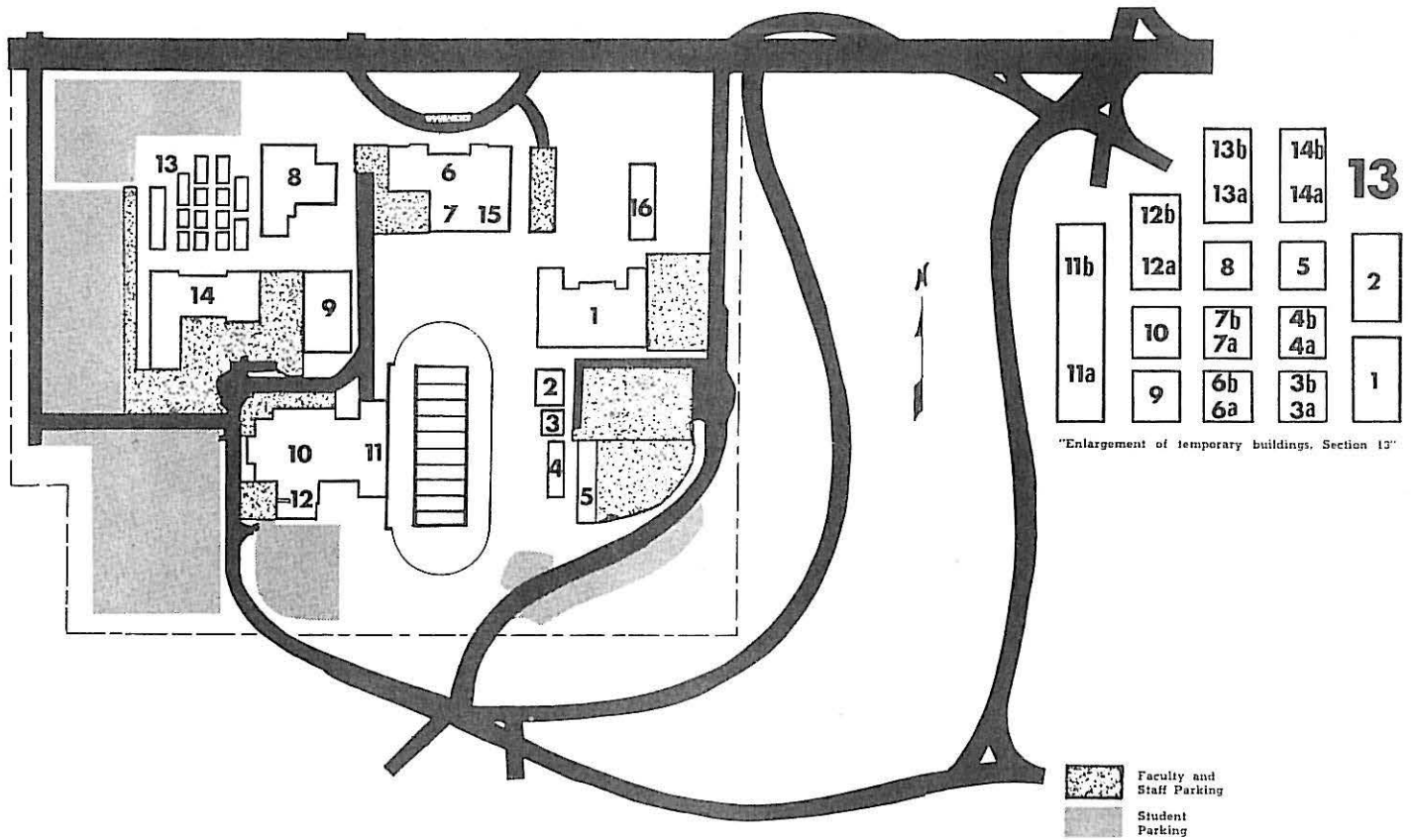
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# UNIVERSITY OF NEBRASKA AT OMAHA

60th and Dodge Streets

Omaha, Nebraska

## LEGEND

- |                                    |                          |
|------------------------------------|--------------------------|
| 1. Administration                  | 9. Allwine Hall          |
| 2. "White House"                   | 10. Field House          |
| 3. Womens Physical Education Annex | 11. Stadium              |
| 4. West Quonset                    | 12. Music Annex          |
| 5. East Quonset                    | 13. Annex                |
| 6. Gene Eppley Library             | 14. Engineering Building |
| 7. Gene Eppley Conference Center   | 15. Library Office Annex |
| 8. Student Center                  | 16. Kayser Hall          |