Graduate Academic Catalog (1971-1972)

University of Nebraska at Omaha
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THE GRADUATE COLLEGE

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. 25-27 Regular registration and changes.
30-31
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.

Second Session.

SECOND SEMESTER 1971-72

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.

Summer 1972

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 Maie 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 26 Alumni Achievement Day.

SUMMER 1972

June 9-10 Regular Registration.
June 12-July 14 First Session.
June 12-Aug. 3 Evening Session.
June 18 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.
THE GRADUATE COLLEGE
UNIVERSITY OF NEBRASKA AT OMAHA

The Board of Regents

Robert L. Raun, Minden
President

J. G. Elliott, Scottsbluff
Kermit Hansen, Omaha
Robert Koefoot, M.D., Grand Island
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. Pfisterer, M.Ed.
Dean of Student Personnel

Jay W. Cox, M.A.
Dean of Student Personnel

Harold D. Keefover, B.S.
Registrar

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. Hoether, Ph.D.
Dean, The College of Business Administration

William T. Uitley, M.A.
Dean, The College of Continuing Studies
Director, Summer Sessions

ROBERT L. ACKERMAN
Elementary Education
Ed.D., University of Nebraska, 1966; Professor

PAUL L. ACKERMAN
Secondary Education
Ed.D., Northern Colorado University, 1964; Professor

FREDERICK W. ADRIAN
History
Ph.D., Ohio State University, 1942; Professor

JAMES C. AKERS
Special Education (Reading)
Ed.D., Northern Colorado University, 1964; Associate Professor and Chairman of Department

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
Psychology
Ph.D., University of Nebraska, 1961; Professor

GORDON BECKER
Psychology
Ph.D., University of Pittsburgh, 1958; Professor

JOSEPH V. BENAK
Civil Engineering
Ph.D., University of Illinois, 1977; 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, 1968; Associate Professor and Chairman of Department

M. JEAN BRESSLER
Secondary Education
Ph.D., University of Nebraska, 1963; Associate Professor

BARBARA BRILHART
Secondary Education
Ph.D., Pennsylvania State University, 1966; Professor and Chairman of Department

*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 Pittsburgh, 1957; Professor
The Graduate College

BARBARA E. BUCHALTER  Mathematics
Ph.D., University of Arizona, 1968; Assistant Professor

SINDEY 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, 1956; 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, 1956; 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, 1960; Assistant Professor

JAMES J. CONWAY  Business Administration (Statistics)
D.B.A., Texas Tech University, 1979; Professor

*STEVEN G. COX  Counseling and Guidance
Ph.D., University of Iowa, 1964; Assistant Professor

*HARRY J. CROCKETT, JR.  Sociology
Ph.D., University of Michigan; Graduate Lecturer

*DANIEL CUSHENBERY  Special Education (Reading)
Ed.D., University of Missouri, 1961; Professor; Director, Reading Clinic

*HARL A. DALSTROM  History
Ph.D., University of Nebraska, 1965; Associate Professor

*KENNETH A. DEPPENBACHER  Psychology
Ph.D., University of Washington, 1968; Assistant Professor

BARTHALOMEW DENNÉY  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, 1953; Professor and Chairman of Department

LAWRENCE E. EHlers  Engineering
Ph.D., Oklahoma State, 1969; Registered Professional Engineer; Associate Professor

KENNETH ELDER  Foreign Languages
Ph.D., University of Kansas, 1969; Assistant Professor

University of Nebraska at Omaha

*ROBERT J. ELLINGSON  Psychology
Ph.D., Northwestern University, 1959; 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, 1960; Assistant Professor

RICHARD B. FLYNN  Secondary Education
M.Ed., Ohio University, 1965; Assistant Professor

JOSEPH A. FREIVALD  Mathematics
Ph.D., University of Oklahoma, 1968; Assistant Professor

EUGENE FREUND  Educational Foundations
Ph.D., Wayne State University, 1969; Associate Professor

*HARL A. DALSTROM  History
Ph.D., State University of Iowa, 1966; Graduate Lecturer

DANIEL G. GAEDERT  History
Ph.D., Ohio State University, 1968; Assistant Professor

WILLIAM L. GAINES  History
Ph.D., Yale University, 1951; Professor and Dean, Academic Affairs

MARGARET GESSMAN  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
Ph.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

ED R. 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, 1979; 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, 1950; Assistant Professor

ELAINE HESS  Sociology
Ph.D., University of Nebraska, 1961; Assistant Professor

WAYNE M. HIGLEY  Business Administration (Accounting and Quantitative Methods)
Ph.D., University of Illinois, 1962, C.P.A., Professor
THE GRADUATE COLLEGE

*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 KOBURG .................................................. 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 L. 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 0. INGHAM ............................................. Biology
Ph.D., University of Utah, 1962; 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
(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. KELLMAN ............................................. 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. KLEEME ............................................. Economics
Ph.D., Iowa State College, 1917; 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
Ed.D., Teachers College, Columbia University, 1964; Graduate Lecturer

W. C. LAMBERT ................................................. Political Science
Ph.D., Washington University, 1950; Professor

University of Nebraska at Omaha

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. LE MAR .............................................. Engineering
M.E., Yale University, 1947; Registered Professional Engineer; Associate Professor

WALTER W. LINSTROMBERG ................................... Chemistry
Ph.D., University of Missouri, 1958; 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

STEEL R. LUNT ................................................... Biology
Ph.D., University of Utah, 1961; Associate Professor

THOMAS MAJESKI .................................................. Mathematics
Ph.D., Georgetown University, 1965; Associate Professor

DONALD D. MANSON ............................................. Speech
Ph.D., Pennsylvania State University, 1956; 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, 1955; 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, 1961; Associate Professor

C. RAYMOND MILLIMET ...................................... Psychology
Ph.D., Oklahoma State University, 1965; Associate Professor

JOYCE MINTZER ............................................... Business Administration (Communications)
Ph.D., Indiana University, 1967; Professor

KAMEL M. MOGHRAI ............................................. Business Administration
(Management and Statistics)
Ph.D., Texas A&M University, 1965; D.B.A., Texas Tech University, 1970; Associate Professor

W. EARL MORRISON ........................................... Special Education
(Deaf Education)
Ph.D., East Texas State University, 1948; Associate Professor

WOODROW L. MOST .............................................. Foreign Language
Ph.D., Loyola University, 1953; Professor and Chairman of Department

KIRK E. NAYLOR .................................................. Educational Administration
Ed.D., University of Kansas, 1932; Professor and President

GLEN A. NEWMARK .............................................. English
Ph.D., University of Denver, 1936; Associate Professor

*JOHN M. NEWMARK ............................................. Business Administration (Management)
Ph.D., University of Illinois, 1963, Professor

*JOHN M. NEWTON ............................................. Psychology
Ph.D., Ohio State University, 1954; Professor and Chairman of Department
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Field</th>
<th>University</th>
<th>Year (Degree)</th>
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<tr>
<td>JOHN R. NYE</td>
<td>Sociology</td>
<td>Ph.D., Iowa State University</td>
<td>1968</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>B. GALE OLESON</td>
<td>Counseling and Guidance</td>
<td>Ph.D., University of Wyoming</td>
<td>1953</td>
<td>Professor; Director, Counseling and Guidance</td>
</tr>
<tr>
<td>ROBERT C. O'REILLY</td>
<td>Educational Administration</td>
<td>Ed.D., University of Kansas</td>
<td>1962</td>
<td>Professor; Director of Institutional Research and Grants Coordinator</td>
</tr>
<tr>
<td>RICHARD A. OVERFIELD</td>
<td>History</td>
<td>Ph.D., University of Maryland</td>
<td>1968</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>RUSSELL W. PALMER</td>
<td>Psychology</td>
<td>Ph.D., University of Iowa</td>
<td>1966</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>JAMES B. PETERSON</td>
<td>Music</td>
<td>Ph.D., State University of Iowa</td>
<td>1953</td>
<td>Professor and Chairman of Department</td>
</tr>
<tr>
<td>WILLIAM PETROWSKI</td>
<td>History</td>
<td>Ph.D., University of Iowa</td>
<td>1956</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>DONALD J. PFLASTERER</td>
<td>Counseling and Guidance</td>
<td>M.Ed., University of Nebraska</td>
<td>1952</td>
<td>Associate Professor; Dean of Student Personnel</td>
</tr>
<tr>
<td>WILLIAM C. PRATT</td>
<td>History</td>
<td>Ph.D., Emory University</td>
<td>1969</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>LEONARD PRESTWICH</td>
<td>Marketing</td>
<td>Ph.D., Ohio State University</td>
<td>1957</td>
<td>Professor; Director Retail Management Program</td>
</tr>
<tr>
<td>PAUL V. PRIOR</td>
<td>Biology</td>
<td>Ph.D., University of Iowa</td>
<td>1959</td>
<td>Professor and Chairman of Department</td>
</tr>
<tr>
<td>GEORGE R. RACHFORD</td>
<td>Educational Administration</td>
<td>Ed.D., Indiana University</td>
<td>1953</td>
<td>Professor</td>
</tr>
<tr>
<td>EDITH RASMUSSEN</td>
<td>Biology</td>
<td>Ph.D., Cornell University</td>
<td>1941</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>M. N. REDDY</td>
<td>Civil Engineering</td>
<td>Ph.D., Oklahoma State University</td>
<td>1965</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>HAROLD J. RETALLICK</td>
<td>Geography</td>
<td>Ph.D., Clark University</td>
<td>1990</td>
<td>Professor</td>
</tr>
<tr>
<td>HARRY W. REYNOLDS, JR.</td>
<td>Political Science</td>
<td>Ph.D., University of Pennsylvania</td>
<td>1954</td>
<td>Professor</td>
</tr>
<tr>
<td>ROY M. ROBBINS</td>
<td>History</td>
<td>Ph.D., University of Wisconsin</td>
<td>1929</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>WILLIS P. ROKES</td>
<td>Business Administration</td>
<td>J.D., University of Utah</td>
<td>1951</td>
<td>Professor</td>
</tr>
<tr>
<td>GUENTER ROSE</td>
<td>Psychology</td>
<td>Ph.D., University of California at Los Angeles</td>
<td>1964</td>
<td>Associate Professor of Psychology and Physiology, College of Medicine (Joint Appointment)</td>
</tr>
<tr>
<td>EDWARD J. SADLER</td>
<td>Secondary Education</td>
<td>Ed.D., University of Nebraska</td>
<td>1969</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>HARRY L. SASLOW</td>
<td>Psychology</td>
<td>Ph.D., University of Pittsburgh</td>
<td>1959</td>
<td>Associate Professor of Child Health (Pediatrics), College of Medicine (Joint Appointment)</td>
</tr>
<tr>
<td>GORDON SCHILZ</td>
<td>Geography</td>
<td>Ph.D., Clark University</td>
<td>1948</td>
<td>Professor and Chairman of Department</td>
</tr>
<tr>
<td>DAVID C. SCOTT</td>
<td>Political Science</td>
<td>Ph.D., State University of Iowa</td>
<td>1948</td>
<td>Professor and Chairman of Department</td>
</tr>
<tr>
<td>JAMES W. SELEE</td>
<td>Educational Experimentation and Development</td>
<td>Ed.D., University of Colorado</td>
<td>1944</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>ROGER S. SHARPE</td>
<td>Biology</td>
<td>Ph.D., University of Nebraska</td>
<td>1968</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>JOHN F. SIRODE</td>
<td>Geography</td>
<td>Ph.D., University of Utah</td>
<td>1967</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>ROBERT B. SIMPSON</td>
<td>Sociology</td>
<td>Ph.D., Washington University</td>
<td>1970</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>KEITH F. SMITH</td>
<td>Mathematics</td>
<td>Ph.D., Iowa State University</td>
<td>1966</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>W. ALAN SMITH</td>
<td>Psychology</td>
<td>Ph.D., University of Missouri</td>
<td>1970</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>PAUL J. STAGEMAN</td>
<td>Chemistry</td>
<td>Ph.D., University of Nebraska</td>
<td>1953</td>
<td>Professor</td>
</tr>
<tr>
<td>ELROY J. STEELE</td>
<td>Economics</td>
<td>Ph.D., State University of Iowa</td>
<td>1957</td>
<td>The Frederick W. Kayser Professor and Chairman of Department; Acting Director, Urban Affairs</td>
</tr>
<tr>
<td>JACQUELINE D. ST. JOHN</td>
<td>History</td>
<td>Ph.D., University of Oklahoma</td>
<td>1969</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>JUSTIN D. STOLEN</td>
<td>Economics</td>
<td>Ph.D., University of Illinois</td>
<td>1969</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>DALE A. STOVER</td>
<td>Religion</td>
<td>Ph.D., McGill University</td>
<td>1967</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>RICHARD STRANGES</td>
<td>Counseling and Guidance</td>
<td>Ph.D., Ohio State University</td>
<td>1968</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>FRED STRIDER</td>
<td>Psychology</td>
<td>Ph.D., University of Nebraska</td>
<td>1961</td>
<td>Associate Professor of Medical Psychology College of Medicine (Joint Appointment)</td>
</tr>
<tr>
<td>DAVID M. SUTHERLAND</td>
<td>Biology</td>
<td>Ph.D., University of Washington</td>
<td>1967</td>
<td>Assistant Professor</td>
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<tr>
<td>GAYLORD H. TODD</td>
<td>Foreign Languages</td>
<td>Ph.D., University of Minnesota</td>
<td>1970</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>A. STANLEY TRICKETT</td>
<td>History</td>
<td>Ph.D., The Victoria University of Manchester, England</td>
<td>1933</td>
<td>Professor and Chairman of Department; Resigned as Chairman Effective August 31, 1971</td>
</tr>
<tr>
<td>KEITH K. TURNER</td>
<td>Economics</td>
<td>Ph.D., University of Nebraska</td>
<td>1968</td>
<td>Associate Professor</td>
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<tr>
<td>WILLIAM T. UTLEY</td>
<td>Political Science</td>
<td>M.A., University of Arkansas</td>
<td>1936</td>
<td>Professor; Director, Public Affairs Institute; Dean, College of Continuing Studies</td>
</tr>
<tr>
<td>PHILIP H. VOGT</td>
<td>Sociology</td>
<td>M.S., Washington University</td>
<td>1936</td>
<td>Professor Emeritus</td>
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<tr>
<td>PHILLIP E. Vogel</td>
<td>Geography</td>
<td>Ph.D., University of Nebraska</td>
<td>1969</td>
<td>Professor</td>
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<tr>
<td>BLAINE WARD</td>
<td>Educational Foundations</td>
<td>Ed.D., University of South Dakota</td>
<td>1969</td>
<td>Assistant Professor</td>
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<tr>
<td>RALPH M. WARDLE</td>
<td>English</td>
<td>Ph.D., Harvard University</td>
<td>1949</td>
<td>The Albert H. Jeffers Professor</td>
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<tr>
<td>FLOYD WATERMAN</td>
<td>Educational Experimentation and Development</td>
<td>Ed.D., Columbia University</td>
<td>1965</td>
<td>Professor; Director, Center for Urban Education</td>
</tr>
</tbody>
</table>

* Denotes joint appointment.
**THE GRADUATE COLLEGE**

*WAYNE WHEELER*  
Ph.D., University of Missouri, 1959; Professor  
Sociology

*RICHARD L. WIKOFF*  
Ph.D., Oklahoma State University, 1965; Associate Professor  
Psychology

*JAMES WILLIAMS*  
Ph.D., University of London, 1954; Professor of Psychophysiology in Psychiatry and Physiology, Research Professor of Surgery, College of Medicine (Joint Appointment)  
Psychology

*CHARLES M. WILSON*  
Ed.D., University of Arkansas, 1969; Assistant Professor  
Educational Administration

*WOLF WOLFENSBERGER*  
Ph.D., George Peabody College for Teachers, 1962; Graduate Lecturer  
Special Education

*JAMES M. WOOD*  
Ph.D., University of Utah, 1966; Associate Professor  
Special Education (Speech Pathology)

*RAYMOND A. ZIEBARTH*  
Ph.D., University of Minnesota, 1963; Professor and Chairman of Department  
Secondary Education

* Member, Graduate Faculty, University of Nebraska System

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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:

<table>
<thead>
<tr>
<th>Department or Area</th>
<th>Minor Only</th>
<th>Master of Arts</th>
<th>Master of Science</th>
<th>Other</th>
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<tr>
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<td>Biology</td>
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<td>Civil Engineering</td>
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<td>Educational Foundations</td>
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<td>Elementary Education</td>
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<td>College Student Personnel Services</td>
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<td>Special Education</td>
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<tr>
<td>Teaching the Deaf</td>
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<td>Teaching the Mentally Retarded</td>
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<tr>
<td>Educational Administration and Supervision</td>
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<tr>
<td>Secondary Administration</td>
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<td>Experimentation and Development</td>
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<td>Foreign Languages</td>
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<td>Educational Psychology</td>
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<td>Industrial Psychology</td>
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<tr>
<td>Sociology</td>
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<tr>
<td>Applied Sociology</td>
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<td></td>
<td>x</td>
</tr>
<tr>
<td>Speech</td>
<td></td>
<td></td>
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<td>x</td>
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</table>
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 Leason, 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)

<table>
<thead>
<tr>
<th>Registration Deadlines</th>
<th>Testing Dates</th>
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</thead>
<tbody>
<tr>
<td>March 24, 1971</td>
<td>April 24, 1971</td>
</tr>
<tr>
<td>May 19, 1971</td>
<td>June 10, 1971</td>
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<td>March 22, 1972</td>
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</tr>
<tr>
<td>May 16, 1972</td>
<td>June 17, 1972</td>
</tr>
</tbody>
</table>

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.
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 1959, 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 earn graduate credit for the issuance or renewal of certificates for teachers, administrators and educational psychologists.
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

**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 $2500. 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 1, May 15, or June 15 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 Admission

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 five years after admission, (b) the student has been granted formal admission to the Graduate College, and (c) the student has completed all of the undergraduate prerequisites for graduate study.

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 degree 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 advisor (or 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. undergraduate 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 submitted prior to 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 These.” 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.

UNIVERSITY OF NEBRASKA AT OMAHA

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 Master'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
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 will be permanently removed from the Graduate College. A grade of "C" in each of three courses will result in the student being granted credit for correspondence work.

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.

UNIVERSITY OF NEBRASKA AT OMAHA

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 accredited 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 of higher standing. A grade of "B" or higher is required for the transfer of graduate credit. No credit will be allowed for correspondence work.

WITHDRAWAL FROM A COURSE OR FROM THE UNIVERSITY

A student who wishes to drop a course or withdraw from the University must do so in writing, and his signature must be on the withdrawal card.

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.

THE GRADUATE COLLEGE
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 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 charge the amount of tuition 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. 249, at least two weeks prior to the start of classes.

INSTRUCTION

<table>
<thead>
<tr>
<th>Tuition, per semester credit hour:</th>
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<tbody>
<tr>
<td>Undergraduate, Graduate or Audit</td>
</tr>
<tr>
<td>Resident of Nebraska</td>
</tr>
<tr>
<td>Nonresident</td>
</tr>
<tr>
<td>Applied Music: Vocal and all instruments except pipe organ</td>
</tr>
<tr>
<td>Fee may be waived by the Head of the Music Department</td>
</tr>
<tr>
<td>One semester credit hour—additional fee</td>
</tr>
<tr>
<td>Two semester credit hours (same instrument) add’l fee</td>
</tr>
<tr>
<td>Non-credit: 18 lessons</td>
</tr>
<tr>
<td>9 lessons</td>
</tr>
<tr>
<td>TV Classroom (per 3 hr. course—includes materials)</td>
</tr>
</tbody>
</table>

Conferences and Non-credit courses: Fees are determined for each offering on an individual basis.
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 session | 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**

| Withdrawal before classes start | 100% |
| Withdrawal during 1st week | 75% |
| Withdrawal during 2nd week | 50% |
| Withdrawal after 2nd week | 25% |
| Withdrawal before 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 1949, 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 300 or above are open to graduate students only. Some courses numbered 400 are open to both seniors and graduates; those same 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.
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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>331 Ecological Botany</td>
<td>Ecological Botany</td>
<td>3 hours</td>
</tr>
<tr>
<td>341 Ecological Zoology</td>
<td>Ecological Zoology</td>
<td>3 hours</td>
</tr>
<tr>
<td>361 Ecological Mycology</td>
<td>Ecological Mycology</td>
<td>3 hours</td>
</tr>
<tr>
<td>371 Ecological Protozoology</td>
<td>Ecological Protozoology</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

**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, embryology, ecology, evolution, ichthyology, histology, invertebrate zoology, ornithology, plant anatomy, plant morphology, plant physiology, and plant taxonomy.
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 341 or permission of the instructor
A course in the identification, classification, ecology, and distribution
of bryophytes.

434 Plant Physiology (I) 4 hours
PREREQ: Biology 145, organic chemistry, or permission of the instructor
A study of plant processes and functions with emphasis on photosyn-
thesis, growth and development, metabolism, and mineral nutrition.

435 Taxonomy of Vascular Plants (II) 4 hours
PREREQ: Biology 145
Classification of vascular plants with particular emphasis on the evolu-
tion and adaptations of selected families with discussion of experimental
techniques used by the taxonomist.

436 General Bacteriology (I) 4 hours
PREREQ: Biology 148, Chemistry 214 or 102
The nature of microorganisms, their life processes, their biological and
economical significance.

437 Endocrinology (II) 3 hours
PREREQ: Organic Chemistry, Vertebrate Anatomy, and Physiology or
permission of the instructor
A survey of endocrine physiology stressing the regulatory and integrative
roles of hormones, the control of hormone secretion, and mecha-
nisms of hormone action.

438 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.

439 Vertebrate Zoology (I) 4 hours
PREREQ: Biology 175
A study of the general biology of the subphylum Vertebrata includ-
ing the morphology, anatomy, physiology, and ecology of vertebrate
representatives.

440 Parasitology (II) 4 hours
PREREQ: Biology 175
Taxonomy, morphology, life history, dissemination, and control of the
parasitic protozoans, helminths, and arthropods.

441 Invertebrate Zoology (II) 4 hours
PREREQ: Biology 175
A study of the morphology, anatomy, physiology, biochemistry, gen-
etics, evolution, taxonomy, ecology, natural history, and behavior of
the invertebrate animals.

442 Embryology (II) 4 hours
PREREQ: Biology 175
The study of insects, their classification, morphology, physiology,
behavior, life histories, ecology, and evolution.

443 Ornithology (II,III) 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,III) 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,III) 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 mecha-
nisms of physiological adaptation by organisms of various taxa.

581 Thesi 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 Heath (Chairman), Wayne M. Higley,
Jack A. Hill, William C. Hockett, John W. Lucas (Emeritus), Joyce
Minteer, 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 respon-
sibilities 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)
- Economics (Macro)
- Statistics
- Accounting (2 courses)
- 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 321 Micro-Economic Theory 3 hours
- Econ 323 Macroeconomic Theory 3 hours
- BA 320 Marketing Policies 3 hours
- BA 320 The Environment of Management 3 hours
- BA 320 Financial Management 3 hours
- BA 320 Accounting for Management Control 3 hours
- BA 521 Contemporary Accounting 3 hours
- BA 520 Quantitative Analysis 3 hours
- BA 519 Business and Society 3 hours
- BA 531 Human Relations 3 hours

UNIVERSITY OF NEBRASKA AT OMAHA

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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 respon-
sibilities 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)
- Economics (Macro)
- Statistics
- Accounting (2 courses)
- 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 321 Micro-Economic Theory 3 hours
- Econ 323 Macroeconomic Theory 3 hours
- BA 320 Marketing Policies 3 hours
- BA 320 The Environment of Management 3 hours
- BA 320 Financial Management 3 hours
- BA 320 Accounting for Management Control 3 hours
- BA 521 Contemporary Accounting 3 hours
- BA 520 Quantitative Analysis 3 hours
- BA 519 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 543 Seminar in Marketing**
3 hours
**BA 547 Analysis**
3 hours
**BA 552 Seminar in Investment Management**
3 hours
**BA 555 Seminar in Finance**
3 hours
**BA 556 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.

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**Course Descriptions**

500 Quantitative Analysis
PREREQ: BA 313 or BA 516
3 hours

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 produced 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, owners, 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
PREREQ: ACC 201 and ACC 202; or BA 311; and Econ. 201 and Econ. 212; or Econ. 301
3 hours

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
PREREQ: Econ. 261 and 352; or Econ. 500
3 hours

A comprehensive study of the management process with particular emphasis given to the production, human, and organizational problems of industrial operations.

515 Marketing Foundations
PREREQ: Econ. 212 and Econ. 202; or Econ. 500. No previous marketing principles.
3 hours

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 principles and research.

516 Statistics for Business Decisions
PREREQ: BA 312 or College Algebra
3 hours

Techniques of analysis and interpretation of quantitative business data: descriptive measures, statistical inference, correlation and time-series.

520 Accounting for Management Control
PREREQ: ACC 201 and ACC 202; or BA 311
1 hour

Emphasis on maximum utilization of accounting information by the management team.

521 Contemporary Accounting
PREREQ: BA 520
3 hours

A penetrating study of accounting areas in which uniformity is not present.

525 Seminar in Accounting
PREREQ: BA 520 or BA 521
3 hours

A study of problem areas which may be independent or interrelated in public, private and governmental accounting.

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**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
PREREQ: Chemistry 225, 225L, 240, 240L; Physics 211; Math 196
3 hours

A presentation of selected topics from the areas of quantum mechanics, classical thermodynamics, statistical mechanics.
CIVIL ENGINEERING (C.E.)

Graduate Faculty Members:
Professors Richard Gibson, James Q. Hossack

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
- Soil Mechanics
- Structural Analysis
- Advanced Math for Engineers
- 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
PREREQ: GE 331
Open channel flow; energy and momentum principles of flow; critical channel; unsteady flow; flow resistance; uniform and unsteady flow; channel controls and transitions.

433 Hydrology
PREREQ: GE 331
The hydrologic cycle, precipitation, infiltration and soil moisture, runoff, rainfall-runoff relationships, factors affecting the utilization and conservation of water resources.

434 Ground Water Hydrology I
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 flow.

442 Construction Management
PREREQ: Permission
Estimating and bidding, scheduling (CPM, PERT), contracts, bonds and insurance, cost control systems, equipment utilization, codes and zoning.

444 Structural Analysis III
PREREQ: CE 344
Analytical methods in the design of industrial buildings, tall buildings and space frames.
500 Soil Mechanics II
PREREQ: CE 449 or equivalent
Complex problems in soil mechanics; the interrelationship of theory, sampling and testing; performance studies. 3 hours

450 Construction Cost and Controls
PREREQ: Permission
Construction estimating, accounting, cost control; construction scheduling, computer applications. 3 hours

467 Form Design and Steel Erection
PREREQ: CE 360
Design of temporary structures for steel erection. 2 hours

470 Prestressed Concrete
PREREQ: CE 360
Design of prestressed members, continuous beams, slabs, and circular prestressing; analysis of prestressed members. 3 hours

472 Matrix Methods of Structural Analysis
PREREQ: CE 344
Computer applications for beams, frames, trusses, grids, and space forms using flexibility and stiffness methods. 3 hours

481 Plastic Analysis
PREREQ: CE 344
Plastic collapse. Upper and lower bound theorem. Analysis of beams and frames. Deflection. Secondary design problems. 3 hours

500 Structural Design for Dynamic Loads
PREREQ: Graduate standing and permission
Behavior of structural materials and systems under dynamic loads. Analysis and design for dynamic loads. Computational techniques. 3 hours

501 Special Engineering Problems
PREREQ: Graduate standing and permission
The theory and application of the cumulative knowledge from undergraduate and graduate course work to a special problem of particular interest to the student and his field of interest. 1-6 hours

550 Thin Shell Structures
PREREQ: Graduate standing and permission
General theory of thin shells: analysis and design of hyperbolic paraboloids, folded plates, cylindrical shells, shell walls, and domes. 3 hours

570 Bridge Deisgn
PREREQ: CE 470, Permission
The theory and design of steel frame, wood girder, prestressed girders, composite, orthotropic and suspension bridges. 3-9 hours

590 Advanced Sanitary Engineering
PREREQ: Six hours of undergraduate-level courses in Sanitary Engineering
Advanced study of biological and chemical processes in sanitary engineering; activated sludge and trickling filter processes; anaerobic digestion; ion exchange and electrodialysis; wet and dry combustion; introduction to industrial waste treatment processes; and special problems in unit processes of waste treatment. 3-6 hours

590 Civil Engineering Special Projects
PREREQ: Graduate standing and permission
Individual students may select a special project incorporated in some phase of civil engineering which requires advanced original thinking and the application of advanced analytical and experimental techniques in its completion. 1-6 hours

601 Graduate Research (Thesis)
3 hours

590 Operations Research I
PREREQ: Math 353, Math 325 or equivalent
Introduction to Operations Research, discrete and continuous probability models, decision theory, linear programming, the transportation problem, Network analysis, PERT, dynamic programming, game theory and queuing theory for finite populations. Optimum cost solutions using manual and computer applications. 3 hours

590 Advanced Mechanics of Materials
PREREQ: GE 343, GE 326, and Math 233

590 Advanced Dynamics
PREREQ: GE 343, Math 235, GE 290
Motion of a variable mass. Angular impulse and momentum. General equations of motion. Gyroscope theory. Motion of vibration. Lagrangian equations and Hamilton’s principle. Central force problems. 3 hours

590 Advanced Fluid Mechanics
PREREQ: GE 445, GE 321, Math 233
Kinematics of incompressible inviscid fluids. Eulerian and Lagrangian equations of motion. Velocity potential and stream function. Boundary Conformal transformations and airfoils. Flow of real fluids. Boundary Layer theory. 3 hours

590 Operations Research II
PREREQ: ENG 490
Queueing theory for infinite populations, optimum-cost queueing solutions, inventory theory and control, applications of Markov chains, computer simulation of stochastic systems, integer programming, and an introduction to non-linear programming. 3 hours

590 Experimental Stress Analysis
PREREQ: GE 493 or permission
Investigation of the basic theories and techniques associated with the analysis of stress using mechanical strain gauges, electric strain gauges, laquer, photo-elasticity and membrane analogs. 3 hours

590 Advanced Hydraulics
PREREQ: Graduate standing and permission
Advanced studies in hydraulics including hydrometry, similitude, urban hydrology, hydrodynamics, hydraulic transitions, and loose boundary hydraulics. 3 hours

590 Structural Engineering
PREREQ: Graduate standing and permission
Contemporary developments in the analysis and design of space-truss and space-enclosing structures, including appropriate mathematical and mechanical methods of analysis. 1-12 hours

590 General Sanitary Engineering
PREREQ: Six hours of undergraduate-level courses in Sanitary Engineering
Advanced study of biological and chemical processes in sanitary engineering; activated sludge and trickling filter processes; anaerobic digestion; ion exchange and electrodialysis; wet and dry combustion; introduction to industrial waste treatment processes; and special problems in unit processes of waste treatment. 3-6 hours

590 Theory of Plates and Shells
PREREQ: GE 493, Math 233
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 by means of classical, energy and numerical methods; large deflection theory of thin plates. Shells: Membrane theory of barrel shells, domes, cylindrical shells, general theory of thin shells, analysis of thin folded plates. 3-6 hours

500 Theory of Elastic Stability
PREREQ: GE 493, Math 233
Buckling of columns, elastic buckling of bars and frames, plastic buckling of beams, punching of plates, buckling of rings, curved bars and arches.
ECONOMICS (ECON)

Requirements:

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 36 hours must be numbered at the 500-level or above. Students must also satisfactorily complete Economics 520, 522, 533, and 545.

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.

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

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)

PREREQ: Econ. 315

A study of the issues, structures and problems involved in collective bargaining, and the settlement of disputes, as centered around the labor-management contract.

413 Advanced Firm and Industry Theory

PREREQ: Econ. 230

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.

414 Advanced Macro-Theory

PREREQ: Econ. 232

A study of the level of income, production, employment, and growth. Classical and Keynesian systems are contrasted with recent theoretical developments being explored.

415 History of Economic Thought

PREREQ: Econ 201 and 302

From Mercantilism to the modern period. Focus is on the interactions of institutional milieu, thought and economic doctrine.

416 Econometrics

PREREQ: BA 313, Econ 201 and 302 or equivalent

Introduction to the study and application of modern statistical and mathematical methods to economic models.

420 Comparative Economic Philosophy

PREREQ: Econ 230

The main systems 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.

421 Contemporary Economic Philosophy

PREREQ: Econ 232

A continuation of Economics 436 with emphasis upon contemporary writers and thinkers.

430 Geography of Manufacturing (same as Geography 443)

PREREQ: Econ. 232

The role of money in the stabilization at high levels, production, employment, income and prices. Emphasis is on contemporary problems.

434 Monetary Theory and Policy

PREREQ: Econ. 234

The role of money in the stabilization at high levels, production, employment, income and prices. Emphasis is on contemporary problems.

435 State and Local Finance

PREREQ: Econ. 201 and 302

Economic resource allocation problems of state and local government with particular reference to Nebraska and Omaha.

436 Economic Development

PREREQ: Econ. 201 and 302

Problems relating to early stages of economic development; investment priorities, mobilizing savings and policies and programs are studied.

440 Managerial Economics

PREREQ: Econ. 230

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.

441 Analytical Foundations of Economics

PREREQ: Econ. 230

Fundamental principles of macro and micro economic theory for Graduate Students in Business. The development of modern aggregate theory is examined and an emphasis is placed on the business firm's market structure, production possibilities, and cost factors undertaken.

500 Economic Education

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 familiarize 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 506.

507 Economic Education Institute (V) 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 (II) 3 hours
PREREQ: Econ 339
This seminar develops modern micro-economic theory with emphasis on utility functions and demand, production functions and costs, 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) 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 relationships to the classical macro-theory and the many refinements of the Keynesian model. To learn some extensions of the Keynesian theory, especially economic problems 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) 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.

541 Seminar in American Economic History to 1865 (I) 3 hours
(See History)

542 Seminar in American Economic History Since 1865 (II) 3 hours
(See History)
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
PREREQUISITE: At least 3 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.

431 Principles of Adult Education  (II, 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 group situations.

484 Audio-Visual Materials in Education  (II, S) 3 hours
The selection, care, organization, and utilization of materials and equipment in instruction.

486 Preparation of Instructional Material  (II, S) 3 hours
A basic course in the production of inexpensive audio-visual materials for the classroom. Graphic, photographic, and audio-visual materials are considered, including the instructional material as slides, filmstrips, and exhibits.

500 Professional Problems of the Disadvantaged  3 hours
This course is designed to help students develop a basic understanding of child care, group and family, and learning problems of the disadvantaged child in the classroom.

505 Special Studies  (II, S) 3 hours
A series of intensive courses especially suited for teachers in service—scheduled as regular seminars, workshops, or concentrations, according to purpose.

506 Individual Research  (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.

508 History and Philosophy of Education  (II, S) 3 hours
A survey of the history 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.

510 Communication for Teachers of the Disadvantaged  3 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.

526 Comparative Education  (II, 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.

528 Seminar in Education  (II, S) 3 hours
Research of problems in education which are of current significance (or of historical, philosophical, or psychological background in education).

560 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.
Master of Science

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

I. Selected Cognate Courses

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.

II. Required Courses

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.

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 591
Designed as an advanced study for the purpose of exploring current trends and developments within the various subject matter areas of the elementary school.

541 Introduction to Curriculum Planning—Elementary (I,S) 3 hours
PREREQ: FED 591
A study of the history, philosophy and current developments in the elementary curriculum with an emphasis on appropriate content and methods of curriculum reorganization.

543 Seminar in Elementary Education 3 hours
PREREQ: FED 591
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,S) 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.

Course Descriptions

I. Required Courses

FED 501, Introduction to Research 6-9 hours

FED 562, History and Philosophy of Education 21 hours

FED 519, Diagnostic and Remedial Instruction 6-9 hours

FED 541, Seminar in Elementary Education 6-9 hours

EDAD 556, Administration and Supervision in Elementary Schools 6-9 hours

To be determined by student and his advisor.

University of Nebraska at Omaha

Master of Arts

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

Course Descriptions

I. Required Courses

FED 591, Introduction to Research 3 hours

FED 562, History and Philosophy of Education 9 hours

FED 525, Seminar in Secondary Education 9-15 hours

FED 530 and 533 strongly recommended

III. Related Cognate Courses

Generally selected from areas related to student's teaching field 12-18 hours

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.

Course Descriptions

I. Required Courses

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

500 Special Studies (I,II,S) 3 hours

510 Research Project (I,II,S) 1-3 hours

523 Seminar in Secondary Education 3 hours

530 Emerging School Curriculum (I,II,S) 3 hours

532 The Junior High School (I,II) 3 hours

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 and interaction 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 administra-
tors. Emphasis will be placed on instructional procedure, curriculum,
and classroom management.

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

552 Foundations in Business Education

555 Improvement of Instruction of Secondary School Science

558 Improvement of Instruction of Secondary School BSCS Biology (yellow)

559 Improvement of Instruction of Science, Harvard Project Physics

560 Improvement of Instruction of Science, Earth Science Curriculum Project

562 Improvement of Instruction in Science, Earth Science Curriculum Project

565 Science Education Seminar

572 Problems of Vocational Business Education

575 Improvement of Instruction of Secondary School Business Education

587 Vocational Curriculum Construction

601 Thesis

602 Thesis

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
FED 501, Introduction to Research
FED 507, Statistical Methods
II. Selected Cognate Courses
These courses are selected in accordance with student’s particular area of
interest.

III. Counseling and Guidance Courses
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*

III. Counseling and Guidance Courses
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*

II. Selected Cognate Courses
These are most often selected from offerings of the Psychology, So-
ciology or Foundations of Education Departments.

III. Counseling and Guidance Courses
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.

* Teaching certificate required for institutional endorsement to serve as secondary
or elementary school counselors.
Specialization in College Student Personnel Services

I. Foundation Courses
- FED 501, Introduction to Research
- FED 507, Statistical Methods
6 hours

II. Selected Cognate Courses
6-12 hours

These courses are selected in accordance with the student's particular area of interest. 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

450 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 instrumental 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 (I, II, S) 3 hours
PREREQ: Permission of department
Intensive courses scheduled as regular seminars or workshops, according to purpose.

510 Research Project in Counseling and Guidance (I, II, S) 3 hours
PREREQ: Permission of instructor
Individual or group study and analysis of specific problems in counseling and guidance.

529 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.

530 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.

531 Occupational and Educational Information (I, II, S) 3 hours
PREREQ: FED 507 and Coun 460 or 462
The nature and use of occupational and educational information. The process of vocational choice.

532 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.

533 Counseling Practices (I, II, S) 3 hours
PREREQ: Coun 500 or 501
Study of the theories and practices of counseling.

534 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.

535 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.

536 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.

537 Community Involvement for Urban Counselors 3 hours
PREREQ: Coun 490 or 492 and permission of instructor
An extended 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.

538 Child Assessment in Elementary School Guidance (I, II, S) 3 hours
PREREQ: Coun 460 or 492
Methods and techniques for identification of the elementary child as a unique individual.

539 Counseling Elementary School Children (I, II, S) 3 hours
PREREQ: Coun 460 or 462 and Departmental permission
A study of the methods and techniques applicable in counseling young children.

540 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.

541 Elementary School Counseling Practicum Part II (II) 3 hours
PREREQ: Coun 532 and permission of Department
Counseling in the elementary setting under the supervision of counseling professor of the University. Part II of Practicum sequence.

545 Elementary Counseling Internship (I, II, S) 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.

550 Guidance Services and the Disadvantaged Youth (I, II, S) 3 hours
PREREQ: Coun 520 and 521
A study of the methods and techniques in counseling disadvantaged youth.

555 Thesis (I, II, S) 3 hours
PREREQ: Permission
Independent research project written under the supervision of an adviser.

556 Thesis (I, II, S) 3 hours
PREREQ: Permission
Independent research project written under the supervision of an adviser.

557 Theories and Studies in Occupational Educational Information (I, II, S) 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.

558 Advanced Studies in Counseling (I, II, S) 3 hours
PREREQ: Coun 520 or Psych 492
An intensive study of selected counseling theories, methods and research.

559 Counseling with Children (I, II, S) 2 hours
PREREQ: Coun 521 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.

560 Advanced Counseling Practicum (I, II, S) 3 hours
PREREQ: Coun 523 or 529 or 536 and permission of Department
Continuation of Practicum in Counseling.

561 Guidance and Counseling Seminar (I, II, S) 2 hours
PREREQ: Permission of Department
The consideration of topics having current relevance to guidance and counseling.

562 Research Project in Counseling and Guidance (I, II, S) 3 hours
PREREQ: Permission
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 414, Speech Development and Correction; SPED 437, Basic Audiology; SPED 486, 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 538 Advanced Problems
   SPED 570 Seminar in Special Education
   SPED 546 Speech Evaluation
   SPED 548 Advanced Audiology

II. 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 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 501 Seminar in Special Education
      SPED 546 Practicum in Special Education
   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
   Including work in graduate reading courses (SPED 511, 512, 513, 514, and 515 or their equivalent).

II. Related Professional Courses
   Including Introduction to Research and selected work in such areas as foundation and general education, elementary education, special education, and psychology.

III. Related Cognate Courses
   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 366 or 368, Introduction to Special Education or Observation and Participation; SPED 341, Speech Development and Correction; SPED 457, 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, Neurophysiology
SPED 548, Advanced Audiology
SPED 551, Basic Practicum Speech
SPED 552, Advanced Practicum Speech
SPED 553, Advanced Problems
SPED 576, Seminar in Special Education

Elective Courses
SPED 556, Basic Practicum Speech
SPED 557, Articulatory Speech Rehabilitation
SPED 558, Speech Problems of Cerebral Palsied Children
SPED 446, Learning Disabilities
SPED 453, Speech Reading and Auditory Training
SPED 454, Teaching of Speech to the Deaf I
SPED 455, Teaching of Speech to the Deaf II
SPED 456, Teaching of Language to the Deaf I
SPED 457, Teaching of Language to the Deaf II
SPED 458, 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
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 434, Speech Reading and Auditory Training
SPED 435, Teaching School Subjects to the Deaf I
SPED 436, 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>532</td>
<td>Problems of Teaching Reading-Secondary</td>
<td>(1:5)</td>
<td>3 hours</td>
</tr>
<tr>
<td>531</td>
<td>Diagnosis and Remedial Instruction in Reading</td>
<td>(1:1:5)</td>
<td>3 hours</td>
</tr>
<tr>
<td>530</td>
<td>Measurable and Remedial Evaluation of Reading Problems of the Disadvantaged Child</td>
<td>(I:1:5)</td>
<td>3 hours</td>
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<td>539</td>
<td>Reading Problems of the Disadvantaged Child</td>
<td>(3)</td>
<td>3 hours</td>
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<tr>
<td>538</td>
<td>Seminar in Organization and Administration of Reading Programs</td>
<td>(1)</td>
<td>3 hours</td>
</tr>
<tr>
<td>537</td>
<td>Advanced Studies in the Disorders of Speech Articulation</td>
<td>(I:2)</td>
<td>3 hours</td>
</tr>
<tr>
<td>536</td>
<td>Advanced Studies in the Disorders of Voice</td>
<td>(I:2)</td>
<td>3 hours</td>
</tr>
<tr>
<td>535</td>
<td>Advanced Studies in the Disorders of Rate and Rhythm</td>
<td>(I:2)</td>
<td>3 hours</td>
</tr>
<tr>
<td>534</td>
<td>Advanced Studies in the Disorders of Aphasia and Related Problems</td>
<td>(I:2)</td>
<td>3 hours</td>
</tr>
<tr>
<td>546</td>
<td>Speech Evaluation: Methods and Practice</td>
<td>(1)</td>
<td>3 hours</td>
</tr>
<tr>
<td>545</td>
<td>Neurophysiology of Speech</td>
<td>(1)</td>
<td>3 hours</td>
</tr>
<tr>
<td>544</td>
<td>Basic Structure and Function of the Organs of Hearing and Speech</td>
<td>(1)</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

**Notes:**
- PREREQ: Graduate Standing and 6 hours Speech Pathology
- Students select and investigate topics 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 selected by students for their clinical demonstrations of selected speech, voice, and language problems.
- Problems of voice and speech rehabilitations for the individual with 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.

**Advanced Problems of Cerebral Palsey Children**
- PREREQ: Six hours Speech Pathology and Graduate Standing
- Identification of types of cerebral palsy by location of lesion, motor syndromology, and additional handicaps; the role of the speech clinician on the team; types of speech therapies based on the Bobath approach: current research and controversial issues will be discussed.

**Vocational Training of the Mentally Retarded**
- 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.

**Seminar in Special Education**
- Graduate course primarily for Special Education majors and professional workers in the fields of speech and hearing, 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 with visiting experts.

**Parent-Professional Relationships in Special Education**
- 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.
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

ED AD 530, Seminar
ED AD 540, 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 514, Advanced Practicum in Educational Administration

III. Select two of the following ...................................... 6 hours

ED AD 560, School Plant Planning and Operation
ED AD 534, 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

ED AD 530, Seminar
COUN 490, Principles of Guidance
ED AD 534, 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 514, 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

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

1. 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

1. Including selected work in such areas as curriculum, guidance, reading, foundations, and special education.

2. Including selected work in such areas as economics, English, psychology, business administration, sociology, geography, history, speech, mathematics.

III. Related Cognate Courses

1. Including selected work in such areas as education, 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 plan. A final committee-approved plan 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 Special Studies in Educational Administration and Supervision (I,II,III) 3 hours
A series of intensive courses especially designed for educational administrators and supervisors—scheduled as regular seminars or workshops, according to purpose.

510 Research Project in Educational Administration (I,II,III) 3 hours
Individual or group study and analysis of specific problems in educational administration and supervision.

525 Data Processing in Educational Administration 3 hours
A study of the role of electronic data processing and systems procedures in educational administration.

530 Seminar in Educational Administration 3 hours
A study of educational problems and their relationships to and implications for educational administration. (Course should be taken in last nine hours of the Master of Science Degree.)

535 Foundations of Educational Administration and Supervision 3 hours
A study of the nature and functioning of effective school organization and administration, including the inter-relationships between the federal, state, and local responsibilities.

540 Practicum in Educational Administration and Supervision 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.)

541 Advanced Practicum in Educational Administration and Supervision 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 interests and needs of the student require.

542 Administration and Supervision in Elementary Schools 3 hours
PREREQ: Fed 501
The nature, principles, and functions of modern administrative and supervisory practices as they relate to the elementary school.

547 Administration and Supervision in Secondary Schools 3 hours
PREREQ: Fed 501 and EDAD 525
The nature, principles, and functions of modern administrative and supervisory practices as they relate to the secondary school.

548 Administration and Supervision in Junior High School 3 hours
PREREQ: Fed 501 and EDAD 525
This course is designed to acquaint the student with the function of administration and supervision of the junior high school program.

554 School Law 3 hours
PREREQ: Fed 501 and EDAD 525
Considers legal principles and practices which are applicable to public education for public school teachers and administrators.
555 School Business Management
PREREQ: FED 501 and EDAD 533
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.
3 hours

560 School Finance
PREREQ: FED 501 and EDAD 533
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.
3 hours

561 Organization and Administration of the Physical Plant
PREREQ: EDAD 569
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.
3 hours

570 Administration and Staff Personnel
PREREQ: FED 501 and EDAD 533
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.
3 hours

571 Interpersonal Relationships in Educational Administration
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.
3 hours

580 Administration and Supervision of Vocational Education
Basic concepts for administration and supervision of vocational education, as related to the needs of the superintendent, principal, supervisor, teacher.
3 hours

581 Urban School Administration
This course is designed to acquaint students of educational administration with urban problems and issues which most significantly affect the administration of city schools.
3 hours

590 Administration of Higher Education
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.
3 hours

600 Seminar in Educational Administration
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 who include current educational problems and procedures.
3 hours

601 Advanced Seminar in Educational Administration
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.
3 hours

611 Field Project in Educational Administration
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.
3 hours
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

431 Sixteenth Century Literature 3 hours
PREREQ: Graduate
Poetry and prose of the English Renaissance, from its continental origins to the end of the Elizabethan Age.

433 Chaucer 3 hours
PREREQ: Eng. 231
A study of the language and writing of Chaucer, with emphasis on The Canterbury Tales.

440 English Literature in the Age of Pope and Swift 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 The Age of Johnson 3 hours
PREREQ: Graduate
Poetry, prose (exclusive of the novel) and drama of England during the second half of the eighteenth century.

448 Seventeenth Century Literature 3 hours
A study of the English poetry and prose of the seventeenth century to the Restoration with emphasis on Milton.

450 English Drama before 1642 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 Structural Linguistics 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.

467 The English Novel 3 hours
PREREQ: Graduate
The development of the English novel from the beginning to the end of the Victorian period.

University of Nebraska at Omaha

469 History of the English Language 3 hours
PREREQ: Eng. 453 or permission
A study of the internal and external forces which have influenced the development of the English language.

470 Medieval English Literature 3 hours
PREREQ: Eng. 231 or permission
A survey of the principal writings in English, excluding those of Chaucer, from 1066 to 1500.

471 Literature of the Romantic Period 3 hours
PREREQ: Graduate
Poetry and prose (excluding the novel) of England from 1798 to 1830.

472 Literature of the Victorian Period 3 hours
PREREQ: Graduate
Poetry and prose (excluding the novel) of England from 1830 to 1900.

477 The American Novel 3 hours
PREREQ: Graduate
The major American novelists from Hawthorne to the present.

480 The American Drama 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.

490 Seminar: Introduction to Literary Research 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.

500 Seminar: Literary Criticism 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.

505 Seminar in American Literature 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.

509 Seminar: The English Renaissance 3 hours
PREREQ: Graduate standing or permission
A seminar in a few significant literary figures of the English Renaissance.

510 Seminar: The Restoration and Early 18th Century 3 hours
PREREQ: Graduate
A detailed study of selected authors and works of the Augustan Age of English literature (1660-1700).

515 Seminar in Victorian Literature 3 hours
PREREQ: Graduate
Intensive study of selected nineteenth-century English authors and their works.

516 Seminar in Shakespeare 3 hours
PREREQ: Graduate
Critical analysis of ten tragedies or ten comedies of Shakespeare.

517 Seminar: John Milton 3 hours
PREREQ: Graduate
An intensive seminar in the major works of John Milton and investigation of specific critical and scholarly problems.

518 Seminar in English Literature 1750-1830 3 hours
PREREQ: Graduate
Studies in English literature of the Age of Johnson and that of the Age of Wordsworth.

520 Seminar in Medieval Literature 3 hours
PREREQ: Graduate
A study of the rationale and techniques of medieval allegory.
### Course Descriptions

#### French (FREN)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>349</td>
<td>Eighteenth Century French Literature (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>French 312, Study of the Enlightenment, emphasizing the works of Montesquieu,</td>
<td></td>
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<tr>
<td></td>
<td>Voltaire, Rousseau and Diderot.</td>
<td></td>
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<tr>
<td>351-352</td>
<td>Nineteenth Century French Literature (I,II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>French 312 for either 351 or 352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>351: 1789 to 1848, Lamartine to Michelet, Stendhal, Murmure, Balzac,</td>
<td></td>
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<td></td>
<td>Hugo. 352: 1850 to 1885, Realism Naturalism Parnassus, Symbolism.</td>
<td></td>
</tr>
<tr>
<td>421</td>
<td>Sixteenth Century French Literature (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Any 300 course in French literature. Literature of the Renaissance, Rabelais,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ronsard, Montaigne.</td>
<td></td>
</tr>
<tr>
<td>431</td>
<td>Seventeenth Century French Literature (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Any 300 course in French literature. Literature of the seventeen centuries,</td>
<td></td>
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<tr>
<td></td>
<td>the Classical School Descartes, Pascal, Corenille, Molière, Racine, La-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fontaine.</td>
<td></td>
</tr>
<tr>
<td>451-452</td>
<td>Twentieth Century French Literature (I,II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>For either 451 or 452, any French 300 course in literature or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>481-482</td>
<td>Nineteenth Century French Literature (I,II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Any 300 course in French literature. Literature of the nineteenth centuries,</td>
<td></td>
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<tr>
<td></td>
<td>from the beginning to 1932. Continuation to current literary production.</td>
<td></td>
</tr>
<tr>
<td>490</td>
<td>Pro-Seminar (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Permission of instructor</td>
<td></td>
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<tr>
<td></td>
<td>A detailed study of narrower phases of French literature, language or</td>
<td></td>
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<td></td>
<td>culture.</td>
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</tbody>
</table>

#### German (GERM)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>431</td>
<td>German Literature of the 19th Century (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>German 313, The dramatic, epic and lyric works of nineteenth century German</td>
<td></td>
</tr>
<tr>
<td></td>
<td>literature.</td>
<td></td>
</tr>
<tr>
<td>432</td>
<td>German Literature of the 20th Century (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>German 313, The principal dramatic, epic and lyric works of the twentieth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>century German literature.</td>
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</tr>
<tr>
<td>439</td>
<td>German Novel (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Permission of instructor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Survey of the German novel from its beginning to the twentieth century.</td>
<td></td>
</tr>
<tr>
<td>440</td>
<td>German Novelle (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>German 313 or permission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Survey of the German short story, its historical origin, characteristics.</td>
<td></td>
</tr>
</tbody>
</table>

#### Spanish (SPAN)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>355</td>
<td>Modern Drama of Spain (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 318, Ideologies, techniques, trends, and influences of the major</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spanish dramatists of the nineteenth and twentieth centuries.</td>
<td></td>
</tr>
<tr>
<td>356</td>
<td>Modern Novel of Spain (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 318 or permission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analytical study of the representative Spanish novelists of the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nineteenth and twentieth centuries from P.A. de Aburón to Cela.</td>
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</tr>
<tr>
<td>410</td>
<td>Theater of the Golden Age (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>317 or permission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foremost Spanish dramatists and plays of the sixteenth and seventeenth</td>
<td></td>
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<tr>
<td></td>
<td>centuries, with emphasis on Lope de Vega, Tirso de Molina, and Calderon</td>
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<tr>
<td></td>
<td>dela Barca.</td>
<td></td>
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<tr>
<td>411</td>
<td>Novel of the Golden Age (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>317 or permission</td>
<td></td>
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<tr>
<td></td>
<td>Foremost Spanish dramatists and plays of the sixteenth and seventeenth</td>
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<tr>
<td></td>
<td>centuries, including such works as Lazarillo de Tormes, La Celestina, and</td>
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<tr>
<td></td>
<td>Don Quijote.</td>
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<tr>
<td>416</td>
<td>Spanish American Literature of the 20th Century (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 322 or permission</td>
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<tr>
<td></td>
<td>Critical and analytical study of the foremost Spanish American</td>
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<tr>
<td></td>
<td>dramatists, poets, and essayists from Modernism to the present.</td>
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<tr>
<td>420</td>
<td>Spanish American Novel (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 322 or permission</td>
<td></td>
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<tr>
<td></td>
<td>Study of representative novelists and novelists of the nineteenth and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>twentieth centuries, with emphasis on contemporary authors.</td>
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<tr>
<td>424</td>
<td>Generation of 1898 (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 318 or permission</td>
<td></td>
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<tr>
<td></td>
<td>Examination of the ideology, philosophy, and literary techniques of</td>
<td></td>
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<tr>
<td></td>
<td>Unamuno, Martinez Ruiz, Valle-Inclán, Baroja and Antonio Machado.</td>
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<tr>
<td>435</td>
<td>Spanish American Short Story (II)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Span. 322 or permission</td>
<td></td>
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<tr>
<td></td>
<td>Representative stories of the nineteenth and twentieth centuries, from</td>
<td></td>
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<tr>
<td></td>
<td>Romanticism to current production.</td>
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<tr>
<td>460</td>
<td>Pro-Seminar (I)</td>
<td>3</td>
</tr>
<tr>
<td>PREREQ:</td>
<td>Permission of instructor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A detailed study of narrower phases of Spanish or Spanish American</td>
<td></td>
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<tr>
<td></td>
<td>literature, language or culture.</td>
<td></td>
</tr>
</tbody>
</table>
Graduate Faculty Members:
Professors Harold J. Retallick, Gordon Schilz (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 conservational practices and problems, and the direction in which resource use and conservation is moving.

412 Urban Geography (Same as Econ. 412) ........................................ 3 hours
PREREQ: 6 hours of Geography
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.
551 Geomorphology 
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
PREREQ: Geog. 107 (104), or 117, or 119
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.

560 Soils
PREREQ: Geog. 106, or 107 (104)
A synthesis of the concepts of the morphology, classification, and distribution of soils with emphasis on environment and genesis.

561 Field Geography
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.

564 Land Use
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
PREREQ: Geog. 453
Teaches the student proper use of drawing instruments, effective map layout and exposure to the latest cartographic techniques, leading to a layout of completeness in the design and interpretation of maps.

571 Population Seminar
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-I. 391.

580 Independent Study in Topics on Urbanism
1 hour per semester to 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, 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: Q. 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, comprehensiveness, plans, and problems of annexation (Same as Pol. Sci. 581)

583-584 Interdisciplinary Seminar on the Urban Community
3 hours per sem. to 6 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, 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 integrated focus.

585-586 Urban Economics
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.

599-600 Urban Regional Research*
Each 3 hours
PREREQ: Graduate enrollment in the Master of Science in Economics program and acceptance as 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, employment, 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, E. J. Gun, (Emeritus) Roy M. Robbins, A. Stanley Trickett (Chairman);
Associate Professors Karl A. Dalstrom, Richard A. Overfield, William Petrovski;
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 1760
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 1760
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 from 1865
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
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
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>414</td>
<td>Early Federal Period, 1789-1815</td>
<td>(II) 3</td>
<td>PREREQ: Hist 111 and 112; A study of the growth and development of the American nation during the formative years under the Constitution.</td>
</tr>
<tr>
<td>416</td>
<td>The Jacksonian Era: 1829-1850</td>
<td>(II) 3</td>
<td>PREREQ: Hist 111 and 112; An interpretive study of the middle period of American history.</td>
</tr>
<tr>
<td>418</td>
<td>Civil War and Reconstruction</td>
<td>(II) 3</td>
<td>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.</td>
</tr>
<tr>
<td>424</td>
<td>The Emergence of Modern America: 1877-1901</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>427</td>
<td>Twentieth Century America to 1952</td>
<td>(I)   3</td>
<td>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.</td>
</tr>
<tr>
<td>428</td>
<td>Twentieth Century America, 1953 to Present</td>
<td>(II) 3</td>
<td>PREREQ: Hist 111 and 112; A study of the history of the United States from the election of Franklin D. Roosevelt to the Presidency.</td>
</tr>
<tr>
<td>429</td>
<td>Ideas in Twentieth Century America</td>
<td>(II) 3</td>
<td>PREREQ: Hist 111 and 112; An analysis of some of the more important ideas which have had influences in recent American history.</td>
</tr>
<tr>
<td>433</td>
<td>American Constitutional History to 1860</td>
<td>(I)   3</td>
<td>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.</td>
</tr>
<tr>
<td>434</td>
<td>American Constitutional History since 1860</td>
<td>(II) 3</td>
<td>PREREQ: Hist 111-112 or permission of instructor; A history of constitutional theory and practice in the United States from 1860 to the present.</td>
</tr>
<tr>
<td>442</td>
<td>History of American Science</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>443</td>
<td>American Urban History to 1870</td>
<td>3</td>
<td>PREREQ: Hist 111 and 112; Historical survey of urban development in the United States from the colonial period through the 1860's: urban problems, problems: roles of cities in national history; American ambivalence toward cities.</td>
</tr>
<tr>
<td>444</td>
<td>American Urban History since 1870</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>451</td>
<td>Intellectual History of Modern Europe: Seventeenth and Eighteenth Centuries</td>
<td>(I)   3</td>
<td>PREREQ: Hist 151 and 152; Intellectual History of Modern Europe from the beginning of the seventeenth century to the French Revolution.</td>
</tr>
<tr>
<td>452</td>
<td>Intellectual History of Modern Europe: The Revolutionary Age to the Present</td>
<td>(II) 3</td>
<td>PREREQ: Hist 151 and 152; Intellectual History of Modern Europe from the French Revolution to the present.</td>
</tr>
<tr>
<td>453</td>
<td>Age of the Reformation</td>
<td>(II) 3</td>
<td>PREREQ: Hist 151 and 152; A study of European society during the critical years following the Renaissance.</td>
</tr>
<tr>
<td>454</td>
<td>The Age of Absolutism</td>
<td>(I)   3</td>
<td>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.</td>
</tr>
<tr>
<td>455</td>
<td>Age of the Enlightenment</td>
<td>(I)   3</td>
<td>PREREQ: Hist 151 and 152; A study of the age of enlightenment and its influence on eighteenth century Europe and of the cause of the French Revolution.</td>
</tr>
<tr>
<td>456</td>
<td>The French Revolution and Napoleonic Era: 1789-1815</td>
<td>(II) 3</td>
<td>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.</td>
</tr>
<tr>
<td>457</td>
<td>Nineteenth Century Europe, 1815-1870</td>
<td>(I)   3</td>
<td>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.</td>
</tr>
<tr>
<td>458</td>
<td>Nineteenth Century Europe 1848-1870</td>
<td>(II) 3</td>
<td>PREREQ: Hist 151-152; An advanced interpretive analysis of the political and cultural development of Europe from the Revolutions of 1848 to 1870.</td>
</tr>
<tr>
<td>461</td>
<td>Tudor and Stuart England</td>
<td>(II) 3</td>
<td>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 cast off the last remnants of medieval things and formed new institutions foreshadowing those of our world today.</td>
</tr>
<tr>
<td>462</td>
<td>England in the Eighteenth and Nineteenth Centuries</td>
<td>(II) 3</td>
<td>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.</td>
</tr>
<tr>
<td>463</td>
<td>English Constitutional History to 1848</td>
<td>(I)   3</td>
<td>PREREQ: Hist 261 and 262 or (with permission of instructor) Hist 151 and 152; A study of the development of the legal and governmental institutions of the English-speaking people to 1848, including England's central and local government.</td>
</tr>
<tr>
<td>464</td>
<td>English Constitutional History since 1848</td>
<td>(II) 3</td>
<td>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 1848, including British central and local government and the governments of the member states of the Commonwealth and the more important colonies.</td>
</tr>
<tr>
<td>471</td>
<td>Nineteenth-Century Intellectual History of Russia</td>
<td>3</td>
<td>PREREQ: Hist 151-152, Hist 271-272, or Permission of instructor; A study emphasizing the nineteenth-century revolutionary tradition, prototypes, ideology and impact upon Russian society.</td>
</tr>
<tr>
<td>477</td>
<td>Europe in Crisis: 1890-1932</td>
<td>3</td>
<td>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.</td>
</tr>
</tbody>
</table>
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 of 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

322 Numerical Methods (II) 3 hours
PREREQ: Math 196, 211 and Computer Language
Solution of equations, polynomial approximation, difference calculus,
integration, quadrature, initial value problems from ordinary differen-
tial equations and matrix inversion.

323 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) stodas, b) snobol, c) algol.
311 Differential Equations (LI,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 (LI,II) 3 hours
PREREQ: Math 191
Events, sets, and countable probability, random variables, probability
and distributions, discrete distributions, expectation and limiting theorems,
point estimation, the multivariable normal distribution, testing of statistical
hypotheses, confidence intervals.

360 Introduction to Topology (LI) 3 hours
PREREQ: Math 196
Theory of sets, topological spaces, metric spaces, topological properties.

512 Advanced Topics in Algebra II (LI,II) Each 3 hours
PREREQ: Math 311 (Differential Equations) and Math 423
Complex number, analytic and elementary functions, complex integrations:
calculus of residues, entire and meromorphic functions, Normal families,
and conformal mappings.

545 Calculus of Variations (LI,II) Each 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 (LI,II) Each 3 hours
PREREQ: Math 423
Differential manifolds, integral calculus on manifolds, lie groups, differen-
tial geometry of Euclidean space.

598 Graduate Seminar (LI) 1-3 hours
PREREQ: Permission of instructor
A graduate seminar in mathematics.

601 Thesis
PREREQ: Permission of department chairman

PHYSICS (PHYS)

Graduate Faculty Members:
Professor John G. McMillan (chairman);
Associate Professor Raymond A. Guenter;
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

311 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.

301-9 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.
362-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 electrodynamics and magnetostatics as well as A.C. theory.
376 Electricity and Magnetism II (II) 3 hours
PREREQ: Physics 275
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.
377-L Laboratory for Electricity and Magnetism I (I) 1 hour
385 Heat and Thermodynamics (II or I) (II) 3 hours
PREREQ: Calculus and Physics 112 or 212
405 Solid State (II or I) 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. Study of nuclear properties, artificial and natural radioactivity, isotopes, tracer, techniques, radiation detection, nuclear 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, systems, physics of stars, star, star systems, and stellar evolution.
455 Quantum Mechanics (I or II) 3 hours
PREREQ: Calculus, Physics 325 or permission
Study of quantum phenomena such as black body radiation, photoelectric effect, Compton scattering, and barrier penetration. Course includes the uncertainty principle, solutions of various problems such as the potential box, potential well, and the harmonic oscillator by use of the Schrödinger equation. Applications will be considered for the hydrogen atom and to simple molecules and crystals.
460 Modern Developments in Physics (I or II) Each 3 hours
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 plasma, nuclear fusion, power, etc. Designed for updating physical science concepts for独角 scientists and for science teachers.
493-L Problems in Physics (I,II,III) Each 1-3 hours
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:
Profs. 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 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 6 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

Politial Science

431 The Presidency 3 hours
The rise of the institution from Washington to the present, the position and prestige it holds and how the President uses this power and prestige to influence Congress, the courts, and the public.

460 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
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
A comparative analysis of the structure and function of American state governments. Institutional aspects will receive primary emphasis, but primary emphasis will be placed on the policy determination process and the significant variables which pattern this process.

411 Public Opinion and Political Behavior
Analysis of the political socialization process as it relates to opinion formation and participation in the effects of this process on the operation of the political system.

418 Constitutional Law I
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
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.
A study of the foreign policy of the U.S.S.R., with emphasis on developments since 1946. 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.

422 National Security Policy
The processes and the machinery of formulating national security policy and the influences involved. Special emphasis is given to demonstrating the influence of military, political, and economic factors on national security policies.

423 International Law of Peace
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 which are excluded from this treatment.

428 Inter-American Politics
Analysis of the role of Latin American states in the international political arena. Emphasis upon developing an understanding of the role of Latin American states in the international system, the relationship of power, and the contemporary problems of the Western Hemisphere.

431 Political Theory I
Reviews and analyzes the leading political theories of Western Man from the Hebran and Greek to the mid-17th Century.

432 Political Theory II
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
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
An overview and analysis of the dominant political and religious ideas that have been present in American thought from the days of the Puritans to today, and the individuals who held them.

435 Democracies
A basic study of theory, practice, and practitioners of political democracy, its roots, development, present application and problems, and future.
369 Independent Study in Topics on Urbanism 6 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 Sociology.)
Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism.
383-384 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 concern urban problems are put in broad interdisciplinary focus.
456-457 Urban Economics 6 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.
456 Readings in Political Science 3 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 advised by the Political Science Department to be capable of pursuing a highly independent course of study.
601-602 Thesis 3 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 and self-directed investigation of a high order of originality. The research topic and the completed project must be approved by the student's departmental committee.
440 Public Budgeting 3 A study of the processes and procedures involved in making budgets for governmental institutions.
441 Public Personnel Management 3 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.
444 Municipal Administration 3 The administrative structure and administrative practices of American cities covering such areas as finance, personnel, public works, public safety, health, utilities, and planning.
446 State Administration 3 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.
501 Seminar in Public Administration 3 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 primarily on broad categories of political and administrative issues as they condition each other.
502 Seminar in Human Relations and Management in Public Agencies 3 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.
504 Seminar in Public Organization and Management 3 PREREQ: Permission of graduate adviser
A study of the principal managerial problems encountered in larger public or governmental bureaucracies.

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. Wilkoff.

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 501 (Proseminar in Learning)
B. Psychology 536 (Proseminar in Development)
II. A. Psychology 521 (Proseminar in Perception)
B. Psychology 532 (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 Psychology)
   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 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>444</td>
<td>Abnormal Psychology</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Basic statistics and Psy. 313</td>
<td>A course designed to examine the aberrant behavior of individuals, symptoms, dynamics, therapy, and prognosis of syndromes are considered. A research approach is emphasized.</td>
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<tr>
<td>445</td>
<td>Personality Theories</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: P.P. 902</td>
<td>A comparative approach to the understanding of personality theory emphasizing the conflict, fulfillment, and consistency approaches to personality.</td>
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<tr>
<td>447</td>
<td>Advanced Counseling Theory</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 343 or Ed. 520 or Psy. 445</td>
<td>This course emphasizes the relationship between diagnosis and treatment with a Jungian approach embracing psychology, literature, philosophy, and theology. Readings are emphasized.</td>
<td></td>
</tr>
<tr>
<td>452</td>
<td>Introduction to General and Experimental Linguistics (Speech 421)</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing in Psy. or Speech or permission. Recommended: Psy. 351 or Speech 551</td>
<td>A broad survey of generative syntax, phonology, and pragmatics and of related material in linguistic and paralinguistic perception and communication. Designed primarily for students wishing to apply linguistic methods and thought in the behavioral and communication sciences. Laboratory to be arranged.</td>
<td></td>
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<tr>
<td>455</td>
<td>Retardation</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 431; or basic statistics and Psy. 343 or 445</td>
<td>This course considers significantly sub-average intellectual functioning originating during the developmental period and associated with impairment in adaptive behavior. Research is emphasized.</td>
<td></td>
</tr>
<tr>
<td>457</td>
<td>Advanced Psychology of Childhood and Adolescence</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Basic statistics, Psy. 332 or permission</td>
<td>A systematic review of the research literature related to the biological, social, and cognitive development of children from conception to adolescence.</td>
<td></td>
</tr>
<tr>
<td>459</td>
<td>Psychology of Exceptional Children</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 343 or 351</td>
<td>A study of the special problems of children with visual, auditory or neurological impairments, orthopaedic, psychological or social maladjustments, learning disabilities and cultural deprivation; and the characteristics of parents, professionals, and others to these children.</td>
<td></td>
</tr>
<tr>
<td>461</td>
<td>Engineering Psychology</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 101 and permission of instructor</td>
<td>The methods of experimental psychology are discussed as they relate to the problems of designing machines for efficient human use.</td>
<td></td>
</tr>
<tr>
<td>462</td>
<td>Psychological Aspects of Industrial Training and Education</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 262 and Basic Statistics</td>
<td>A study and application of the theory, techniques, and procedures involved in preparing individuals for their jobs through training and education.</td>
<td></td>
</tr>
<tr>
<td>463</td>
<td>Techniques of Programmed Instruction</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 101 and permission of instructor</td>
<td>An introduction to methods and technology in construction and use of teaching programs, with special emphasis on computer assisted instruction.</td>
<td></td>
</tr>
<tr>
<td>464</td>
<td>Problems in Psychology</td>
<td>1-3 hours</td>
</tr>
<tr>
<td>PREREQ: 15 hours of psy.</td>
<td>A faculty-supervised research project, involving empirical or library work and oral or written reports.</td>
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</tr>
<tr>
<td>467</td>
<td>Research Problems in Physiological Psychology</td>
<td>3-6 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 332 and permission of instructor</td>
<td>An individualized introduction to the techniques and methodology used in the physiological psychology laboratory.</td>
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</tr>
<tr>
<td>504</td>
<td>Proseminar: Learning</td>
<td>2 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>A comprehensive and intensive coverage of the experimental literature on learning in humans and animals.</td>
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<tr>
<td>505</td>
<td>Advanced Seminar in Learning</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 301 or permission of instructor</td>
<td>A course considering theorists who have most directly influenced the contemporary psychology of learning.</td>
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</tr>
<tr>
<td>510</td>
<td>Proseminar: Analysis of Variance</td>
<td>4 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>A course providing a theoretical and practical understanding of inferential statistics emphasizing the analysis of variance model.</td>
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</tr>
<tr>
<td>511</td>
<td>Proseminar: Multiple Regression and Factor Analysis</td>
<td>4 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>Advanced problems and techniques of correlation and regression are discussed, including multiple regression, correlation, multiple regression, and factor analysis.</td>
<td></td>
</tr>
<tr>
<td>520</td>
<td>Introduction to Counseling Theories (Counseling and Guidance 520)</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Education 490 or department permission</td>
<td>Study of contemporary theories of counseling, the counseling process and methods.</td>
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</tr>
<tr>
<td>521</td>
<td>Proseminar: Perception</td>
<td>2 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>A comprehensive and intensive coverage of the experimental literature on perception in humans and animals.</td>
<td></td>
</tr>
<tr>
<td>523</td>
<td>Proseminar: Physiological Psychology</td>
<td>2 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>A systematic study of the physiological processes underlying behavior.</td>
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<tr>
<td>530</td>
<td>Tests and Measurements</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Basic Statistics</td>
<td>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.</td>
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</tr>
<tr>
<td>531</td>
<td>Proseminar: Social Psychology</td>
<td>2 hours</td>
</tr>
<tr>
<td>PREREQ: Graduate standing and permission of instructor</td>
<td>A course considering the effects of personality variables on behavior. A historical, theoretical, psychometric, and experimental approach will be emphasized.</td>
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</tr>
<tr>
<td>545</td>
<td>Experimental Social Psychology</td>
<td>4 hours</td>
</tr>
<tr>
<td>PREREQ: Psych 213, 345, 391 or 321 with laboratory and permission of instructor</td>
<td>A study and application of the theory, techniques, and procedures involved in preparing individuals for their jobs through training and education.</td>
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<tr>
<td>550</td>
<td>Seminar in Communication Theory (Speech 550)</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Basic statistics or permission of instructor</td>
<td>Analysis of current approaches to the study of communication with emphasis on theoretical models and their application to various professional interests.</td>
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<tr>
<td>555</td>
<td>Advanced Educational Psychology</td>
<td>3 hours</td>
</tr>
<tr>
<td>PREREQ: Psy. 351</td>
<td>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.</td>
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<tr>
<td>553</td>
<td>Individual Tests: Children and Adolescents</td>
<td>4 hours</td>
</tr>
<tr>
<td>PREREQ: 16 graduate hours of psychology including completion of all required courses for the Master's degree and Psy. 411 or 532</td>
<td>Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing.</td>
<td></td>
</tr>
</tbody>
</table>
554 Individual Tests: Adolescents and Adults
PREREQ: 16 graduate hours of psychology including completion of all required courses for the Master's degree and Psy. 531 or 332. Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing.

555 Introduction to Therapeutic Techniques with Children
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 Prospective Seminar: Developmental Psychology
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
PREREQ: Psy. 302 and 312, 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
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
PREREQ: Basic Statistics, Psy. 322 and permission of instructor
A special course designed to familiarize the student with the procedures used in assessing and selecting people for industrial positions.

564 Clinical Child Psychology for School Psychologists
PREREQ: Graduate standing and Basic Statistics
An advanced course in child psychology, with emphasis upon diagnostic classification, refinement of approaches and techniques of assessment, and correction of behavior problem in the school age child. (Cross-listed with Psychiatry 306 at the University of Nebraska College of Medicine.)

565 Topical Seminar in Psychology
PREREQ: Permission of instructor
A discussion of specific advanced topics which will be announced when ever the course is offered.

595 Practicum in Psychology
PREREQ: Permission of instructor
Faculty-supervised experience in an educational agency, clinic or institution. Designed to bridge the gap between the classroom and the job by emphasizing use of previously acquired knowledge in dealing with practical problems.

600 Independent Research Project
PREREQ: Permission of instructor
Independent research project written under supervision of a faculty committee.

SOCIOLGY (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 13 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.S. 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 supervi sed 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
PREREQ: Graduate
(I) 3 hours
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
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

491 Social Control of Behavior
PREREQ: Graduate
(I) 3 hours
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."

492 Collective and Exchange Behavior
PREREQ: Graduate
(II) 3 hours
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.
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, 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 (III) 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 urban institutions of the modern metropolis complex, both as 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 performs 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) 3 hours
PREREQ: Graduate
Relationships theory, method, and the data in sociological investigation. Major techniques and instruments employed in social research, how 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 the social structure of 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 from 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.
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.

Population Seminar (Same as Geography 571) (S) 3 hours
 PREREQ: Permission
 The significance of differences from place to place in the number, kind, and quality of human inhabitants and changes through time.

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.

Interdisciplinary Seminar on the Urban Community 3-6 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.)
 An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus.

585-590 Urban Economics (See Economics 585) 3-6 hours
 Each 3 hours
 A practical work experience under supervision which provides opportunity for applying principles from the student’s academic area of concentration.

591 Thesis Each 3 hours

SPEECH (SPCH)

Graduate Faculty Members:
Professors John K. Brilhart (Chairman), Elton S. Carter, Edwin L. Clark;
Associate Professor Donald D. Munson

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 591, "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,II,S) Each 1-3 hours
 Speaks on topics in speech not covered in regular courses; individual research projects, combined study and practice.

410 Rhetorical Criticism 3 hours
 PREREQ: 9 hours of speech
 Significant movements in the development of rhetorical criticism from antiquity to the present.

As an interdisciplinary seminar, these course numbers may be repeated in a student's program without implying duplication.

GREEK AND ROMAN RHETORIC AND ORATORY

Greek and Roman Rhetoric and Oratory 3 hours
 PREREQ: 9 hours of speech
 The origin and development of rhetorical theory and practice in antiquity.

STUDIES IN AMERICAN PUBLIC ADDRESS

Studies in American Public Address 3 hours
 PREREQ: 9 hours of speech
 Study of representative American speakers from the Eighteenth Century to the present.

HISTORY OF THE THEATRE

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.

THEATRE AND COMMUNICATION

Theatrical 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.

Stage and TV Lighting 3 hours
 PREREQ: Speech 220 and 223
 Characteristics and use of light and color and their application to the theatre and television; elementary electricity; lens systems, deflectors, lamps; control systems.

Radio and TV Programming and Audience Analysis 3 hours
 PREREQ: Speech 230 and/or permission of department chairman
 An introduction to 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.

INTRODUCTION TO GENERAL SEMANTICS

Introduction to General Semantics 3 hours
 PREREQ: Speech 230 and/or permission of department chairman
 A study of the meaning of words and their relationships to other mass media; emphasis on the sociological, economic, and legislative aspects of the medium.

INTRODUCTION TO PERSUASION

Introduction to Persuasion 3 hours
 PREREQ: Speech 230 and/or permission of department chairman
 An introduction to the system of general semantics, considering both limitations and practical applications to perception, thinking, and communicating.
482 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.

481 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.

482 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
Independent research project written under the supervision of an adviser.

602 Independent research project written under the supervision of an adviser.
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UNIVERSITY OF NEBRASKA AT OMAHA
60th and Dodge Streets
Omaha, Nebraska

LEGEND

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4. West Quonset
5. East Quonset
6. Gene Eppley Library
7. Gene Eppley Conference Center
8. Student Center
9. Allwine Hall
10. Field House
11. Stadium
12. Music Annex
13. Annex
14. Engineering Building
15. Library Office Annex
16. Kayser Hall