1. President's Home
2. Beta Theta Pi Fraternity
3. Communications Building
4. Wilner Auditorium
5. Power Plant
6. Duerksen Fine Arts Center
7. Field House
8. Veterans Field
9. Morrison Hall
10. Jardine Hall
11. McKinley Hall
12. Art Building
13. Fisk Hall
14. Henrich Gymnasium
15. Industrial Arts Building
16. Campus Activities Center
17. Grace Memorial Chapel
18. Delta Delta Delta Sorority
19. Political Science Building
20. Corbin Education Center
21. Gamma Phi Beta Sorority
22. Delta Gamma Sorority
23. Alpha Phi Sorority
24. Alpha Chi Omega Sorority
25. Psychology Laboratory
26. ISA House
27. Math-Physics Building
28. Frank A. Neff Hall
29. Grace Wilke Hall (Women)
30. Ablah Library
31. Engineering Building
32. Campus Dining Hall
33. Central Heating Plant
34. ROTC Armory
35. Engineering Laboratory
36. Engineering Research
37. Police Transmitter
38. Research House
39. Physical Plant Building
40. Four-foot Wind Tunnel
41. Jet Cell
42. Walter H. Bech Memorial Wind Tunnel
43. Phi Delta Theta Fraternity
44. Sigma Phi Epsilon Fraternity
45. Delta Upsilon Fraternity
46. Brennan Hall (Dormitories)
This catalog becomes effective September 1, 1966.

This catalog is for information only and does not constitute a contract.
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WICHITA STATE UNIVERSITY
CALENDAR FOR 1966-1967

1966

September 13 and 14, Tuesday and Wednesday .......... Pre-Freshman Period

September 15, 16, 17, Thursday through Saturday noon .......... Registration for First Semester

September 19, Monday .................................... Classes Begin

October 29, Saturday .................................... Final day for removing incompletes

November 11, Friday ...................................... Mid-term reports

November 25, Friday ...................................... Final day for non-penalty grades

November 24, 25, 26, Thursday, Friday, Saturday .......... Thanksgiving recess

November 28, Monday .......... Advising for pre-registration for Second Semester

December 16, Friday ..................................... Pre-registration ends

December 17, Saturday .................................. Christmas recess begins at close of classes

1967

January 3, Tuesday ....................................... Classes resume

January 17, Tuesday ...................................... Classes close

January 18, 19, 20, 21, 23, 24, Wednesday, Thursday, Friday, Saturday, Monday, Tuesday .......... First Semester Final Examinations

February 2, 3, 4, Thursday, Friday, Saturday noon .......... Registration for Second Semester

February 6, Monday ....................................... Classes begin

March 18, Saturday ....................................... Final date for removing incompletes

March 23, Thursday ..................................... Easter recess begins at close of classes

March 28, Tuesday ....................................... Classes resume

March 31, Friday ......................................... Mid-term reports

April 14, Friday ........................................ Final date for non-penalty grades

May 23, Tuesday ......................................... Classes Close

May 24, 25, 26, 27, 29, 30, Wednesday, Thursday, Friday, Saturday, Monday, Tuesday .......... Second Semester Final Examinations

June 4, Sunday ........................................ Commencement Exercises, 6:00 p. m.

June 9, 10, Friday and Saturday ................................ Summer School Registration

June 12, Monday .......................................... Summer School Classes Begin

August 4, Friday .......................................... Summer Session Closes

August 6, Sunday .......................................... Summer Session Commencement
ADMINISTRATIVE OFFICERS OF THE UNIVERSITY—1965-1966

Emory Lindquist
President

Hugo Wall
Vice President — Academic Affairs,
Dean of the Graduate School, Director of Summer Session

V. R. Easterling
Vice President—Operations

Francis Jabara
Dean of the College of Business Administration and Industry

Jackson O. Powell
Dean of the College of Education

Charles V. Jakowatz
Dean of the School of Engineering

Walter Dueksen
Dean of the College of Fine Arts

J. K. Sowards
Dean of the Fairmount College of Liberal Arts and Sciences

J. Robert Berg
Dean of University College

James J. Rhatigan
Dean of Students

Josephine Fugate
Dean of Women

Carl Fahrbach
Director of Admissions and Records

Laura M. Cross
Associate Director of Admissions

Downing O’Harra
Librarian

John Gaddis
Physical Plant Administrator

Roger D. Lowe
Business Manager

Frederick Sudermann
Director of Special Services

Noah Allen
Director of Athletics

BOARD OF REGENTS OF THE STATE OF KANSAS—1965-1966

Arthur H. Cromb
Chairman, Salina

Henry A. Bubb
Topeka

C. N. Cushing
Downs

John F. Eberhardt
Wichita

Ray Evans
Prairie Village

Clement H. Hall
 Coffeyville

Dwight D. Klinger
Ashland

Lawrence D. Morgan
Goodland

Eldon Sloan
Topeka

Max Bickford
Executive Officer

UNIVERSITY FACULTY—1965-1966
(Date following title refers to time of first appointment)


Albers, Robert J., Captain, U. S. Air Force, Assistant Professor of Aerospace Studies (1966), B.S., University of Nebraska, 1953; Squadron Officers School, Air University.

Aldrich, Benjamin M., Professor of Mechanical Engineering (1956). B.S.M.E., University of Nebraska, 1927; M.S., South Dakota College, 1934; Registered Professional Engineer.

Allen, Anneke S., Assistant Professor of Chemistry (1964). Candidaats, Rijksuniversiteit Groningen Netherlands, 1952; Ph.D., Tulane University, 1955.


Auld, James S., Assistant Professor and Director of Testing (1965). B.S., University of Nebraska, 1960; M.Ed., ibid., 1962.

Bartel, Peter S., Assistant Professor of Physics (1965). A.B., Bethel College, 1949; M.A., State University of Iowa, 1953.


Berg, J. R., Professor of Geology and Dean of University College (1946). B.A., Augustana College, 1938; M.S., State University of Iowa, 1940; Ph.D., ibid., 1942.


Berhart, Walter D., Associate Professor and Head of Department of Mechanics and Materials (1954). B.S.C.E., Kansas State University, 1950; M.S., University of Wichita, 1959; Ph.D., Oklahoma State University, 1964.

WICHITA STATE UNIVERSITY


Bikerman, Michael, Assistant Professor of Geology (1965). B.S., Queens College, 1954; B.S., New Mexico Institute of Mining and Technology, 1956; M.S., University of Arizona, 1962; Ph.D., ibid., 1965.


Blake, Leslie M., Professor and Head of Department of Speech (1940). B.S., Kansas State College, 1967; M.S., ibid., 1939.

Blythe, Jack C., Professor and Head of Department of Geology (1949). B.A., University of Wichita, 1947; M.S., Northwestern University, 1950; Ph.D., University of Oklahoma, 1957.


Bolm, John D., Jr., Assistant Professor of History (1965). B.A., University of Texas, 1952; M.A., University of Houston, 1958; Ph.D., University of New Mexico, 1963.

Borre, Robert, Assistant Professor of Psychology (1965). B.S., Northwestern University, 1954; M.A., University of Missouri, 1959.

Boley, Elizabeth Caswell, Assistant Professor of Logopedics (1940). A.B., Friends University, 1938; M.A., University of Kansas, 1943.


Brandhorst, Armin L., Assistant Professor of Mechanics and Materials (1964). B.S.M.E., Kansas State University, 1959; M.S.M.E., Oklahoma State University, 1964.


Breazeale, John, Professor and Head of Department of Physics (1959). B.S., Millsaps College, 1947; M.S., University of Alabama, 1951; Ph.D., University of Virginia, 1955.

Brennan, Daniel J., Assistant Professor of Geology (1964). B.S., University of Notre Dame, 1951; M.S., South Dakota School of Mines and Technology, 1953; Ph.D., University of Arizona, 1957.

Brewer, Jenera J., Assistant Professor of Mathematics (1949). A.B., University of Wichita, 1946; M.A., ibid., 1948.


Brown, Donald M., Instructor in Geology (1966). B.S., Mount Union College, 1942; M.S., Ohio State University, 1948.


Bubieniec, Ernest Julian, Associate Professor and Acting Head of Department of Biology (1961). B.A., Harvard, 1949; M.S., University of Wisconsin, 1952; Ph.D., ibid., 1957.

Buss, Charles M., Associate Professor of Chemistry (1961). B.A., Ohio State University, 1942; M.S., Western Reserve University, 1946; Ph.D., University of Southern California, 1949.


Byers, Norman R., Associate Professor and Head of Department of Mechanical Engineering (1965). B.S., Kansas State University, 1947; M.S., ibid., 1950; Ph.D., ibid., 1955.


Campbell, James H., Assistant Professor of Administration (1964). B.A., Miami University, 1956.


Cathers, Robert E., Assistant Professor of Chemistry (1965). B.S., University of Wichita, 1961; M.S., ibid., 1963.

Cavaruzi, Joyce Pemberton, Instructor in Speech and Drama (1965). B.S. in Education, Ohio University, 1953; M.A., Ohio State University, 1963.

Caesar, James, Professor of Violin (1950). B.M., Cleveland Institute of Music, 1940; B.S., Western Reserve University, 1947; M.A., ibid., 1949.


Christenson, Donald D., Associate Professor of Administration, Assistant Dean of College of Business Administration and Industry, and Head of Department of Administration (1959). B.S., University of Wichita, 1955; M.S., University of Illinois, 1957; Ph.D., ibid., 1962.

Christian, Robert V., Jr., Professor and Head of Department of Chemistry (1946). B.S., University of Wichita, 1940; Ph.D., Iowa State College, 1946.

Cohen, Benjamin Bernard, Professor of English (1960). A.B., University of Maryland, 1943; M.A., ibid., 1944; Ph.D. Indiana University, 1950.


Cook, Everett L., Associate Professor of Aeronautical Engineering and Director of Digital Computing Center (1958). B.S.A.E., University of Wichita, 1954; M.S.A.E., ibid., 1958.

Cootes, H. B., Assistant Professor of Mathematics (1964). B.S., Iowa State University, 1959.

Corbin, Harry F., University Professor (1946). A.B., University of Wichita, 1940; B.D., University of Chicago, 1943; LL.B., University of Kansas, 1949. (Leave of Absence—1965-66).


Costley, Dan L., Assistant Professor of Administration (1965). B.A., University of Oklahoma, 1957; M.A., ibid., 1958; Ph.D., Michigan State University, 1964.

Cotter, Cornelius P., Professor and Head of Department of Political Science (1963). A.B., Stanford University, 1949; M.F.A., Harvard University, 1951; Ph.D., ibid., 1953.

Cowgill, Donald O., Professor and Head of Department of Sociology and Anthropology (1946). A.B., Park College, 1933; A.M., Washington University, 1935; Ph.D., University of Pennsylvania, 1940.


Craig, Andrew J., Associate Professor and Head of Department of Aeronautical Engineering (1957). B.S.A.E., Texas A & M, 1952; M.S.A.E., University of Wichita, 1960; Ph.D., Stanford University, 1963.

Cress, Allan M., Professor and Head of Department of German (1953). A.B., University of Illinois, 1942; M.A., ibid., 1948; Ph.D., ibid., 1952.

Crockett, Helen, Assistant Professor and Director of Continuing Education (1949). B.A., University of Wichita, 1951; M.A., ibid., 1955.


Cutler, Bruce, Associate Professor of English (1960). B.A., State University of Iowa, 1951; M.S., Kansas State University, 1957. (Leave of Absence—First Semester, 1965-66).


Distler, Donald A., Assistant Professor of Biology (1963). B.A., University of Louisville, 1952; M.S., ibid., 1957.


Duerksen, Walter, Professor of Music and Dean of College of Fine Arts (1932). B.P.S.M., University of Wichita, 1951; M.M., Northwestern University, 1938.

Duggan, Bessie L., Assistant Professor of Speech (1964). B.S., Kansas State Teachers College, Emporia, 1954; M.S., ibid., 1957; Specialist, Southern Illinois University, 1961.

Dunn, Colon H., Professor and Head of Department of Electrical Engineering (1959). B.S., John Brown University, 1942; M.E.E., Rensselaer Polytechnic Institute, 1953.

Dunning, Wayne W., Assistant Professor of Chemistry (1961). B.S., Iowa State College, 1952; M.S., Iowa State University, 1959; Ph.D., ibid., 1961.

Dybdahl, Franklin Eugene, Assistant Professor of Voice (1965). B.M.E., University of Nebraska, 1960; M.M., ibid., 1962.

Earnest, Otis J., Assistant Professor of Psychology (1964). B.A., University of Wichita, 1959.


Ellis, Howard E., Professor and Chairman of School of Music and Head of Department of Music Education (1955). A.B., Albion College, 1942; M.M., University of Michigan, 1947; Ph.D., ibid., 1957.


Erickson, James, Assistant Professor of English (1964). B.A., University of Minnesota, 1955; M.A., ibid., 1957; Ph.D., ibid., 1961.


Fahrbach, Carl C., Assistant Professor and Director of Admissions and Records (1964). B.S., Kansas State Teachers College, Emporia, 1948; M.S., ibid., 1951; Ed.D., University of Kansas, 1958.


Farnsworth, David N., Associate Professor of Political Science (1956). B.A., University of Wichita, 1953; M.A., University of Illinois, 1953; Ph.D., ibid., 1959. (Leave of Absence—First Semester, 1965-66).


Hinton, Evelyn A., Associate Professor of Educational Psychology and Supervisor of Improvement of Reading (1929). Graduate, Columbia Normal School of Physical Education at Chicago, 1924; B.A., University of Wichita, 1929; M.S., University of Washington, 1938.

Holman, Carol Schowalter, Assistant Professor of Education and Director of Audiovisual Services (1942). B.M., University of Wichita, 1935; M.M.E., ibid., 1950.

Holmer, Robert M., Professor and Chairman of Division of Physical Education, Health and Recreation, and Head of Department for Men’s Physical Education (1935). B.S., University of Kansas, 1941; M.S., ibid., 1943; Ph.D., State University of Iowa, 1954.

Holmes, Lowell D., Associate Professor of Sociology and Anthropology (1959). B.S., Northwestern University, 1950; Ph.D., ibid., 1957.

Homburger, Richard H., Professor of Accounting (1956). J.D., University of Zurich, 1937; M.S., Columbia University, 1946; CPA Certificate, West Virginia.


Hudlin, Randall D., Assistant Professor of History (1964). B.S., University of Georgia, 1957; M.A., University of North Carolina, 1958; Ph.D., ibid., 1965.

Hughes, Donald, Assistant Professor of Mathematics (1965). B.S., University of Maryland, 1960; M.A., ibid., 1964.


Irvin, Orvil C., Adjunct Professor of Logopedics (1959). B.A., Baldwin-Wallace College, 1914; M.A., Columbia University, 1924; Ph.D., Ohio State University, 1929.

Ivey, Frederick M., Assistant Professor of German (1962). A.B., Tulane University, 1960.

Jabara, F. D., Professor of Accounting and Dean of College of Business Administration and Industry (1949). B.S., Oklahoma State University, 1948; M.B.A., Northwestern University, 1949; CPA Certificate, Kansas.

Jakowatz, Charles V., Professor of Electrical Engineering and Dean of School of Engineering (1965). B.S.E.E., Kansas State College, 1944; M.S.E.E., ibid., 1947; Ph.D., University of Illinois, 1953.


Jenkins, Alvin W., Associate Professor of Physics (1961). B.E.E., North Carolina State College, 1951; M.S., ibid., 1955; Ph.D., University of Virginia, 1958.


Johnson, John W., Associate Professor of Chemistry (1955). A.B., University of Wichita, 1952; M.A., ibid., 1953; Ph.D., University of Illinois, 1956.


Jordan, Donald E., Assistant Professor and Director of Placement (1965). A.B., University of Wichita, 1959; M.Ed., ibid., 1962.

Karr, Harold S., Associate Professor of English (1965). B.A., United College, Winnipeg, 1939; Graduate Diploma in Education, University of Manitoba, 1943; M.A., University of Minnesota, 1946; Ph.D., ibid., 1953.


Killian, Donald B., Assistant Professor of Mathematics (1958). B.S., Southeast Missouri State College, 1951; M.E., University of Missouri, 1956; M.A., ibid., 1958.

Kirkpatrick, Robert P., Associate Professor of Men’s Physical Education and Golf Coach (1949). B.A., University of Wichita, 1941; Ed.M., Boston University, 1948.


Laptad, Richard C., Assistant Professor of Men’s Physical Education (1964). B.S., University of Kansas, 1957; M.S., ibid., 1962.


Lehman, Lytle C., Assistant Professor of Educational Psychology (1965). B.S., Kansas State University, 1955; M.A., University of Denver, 1958.


Levenson, David M., Associate Professor of Stringed Instruments and Music Theory (1965). B.M., McGill University, 1940; M.M., Boston University, 1960.


WICHITA STATE UNIVERSITY
Logue, R. Duane, Assistant Professor of Logopedics (1964). B.S., Colorado State University, 1966; M.S., Purdue University, 1962; Ph.D., ibid., 1964. (Leave of Absence—1965-66).

Loper, Gerald D., Jr, Assistant Professor of Physics (1964). B.A., University of Wichita, 1959; M.S., Oklahoma State University, 1962; Ph.D., ibid., 1964.


McBride, Dan W., Assistant Professor of Logopedics (1965). A.B., Brigham Young University, 1947; Ph.D., Michigan State, 1952.


McCarten, John B., Assistant Professor of Chemistry (1964). B.S., Creighton University, 1958; M.S., ibid., 1960; Ph.D., State University of Iowa, 1964.

McClelland, William F., Captain, U. S. Air Force, Assistant Professor of Aerospace Studies (1962). B.S., Boston University, 1953; Squadron Officers School, Air University, 1962; Academic Instructor and Allied Officer School, ibid., 1961.


March T. Reese, Professor of English (1943). B.A., Johns Hopkins University, 1924; Ph.D., State University of Iowa, 1933.


Mayer, Ellen, Instructor in German (1965). B.M., Oberlin College, 1943; M.M., Michigan State University, 1944.


Merrill, Walter M., Professor and Head of Department of English (1959). B.S., Northwestern University, 1937; A.M., Harvard University, 1941; Ph.D., ibid., 1946.


Mickell, Howard A., Assistant Professor of Religious Education (1965). B.A., Nebraska University, 1949; M.A., Northwestern University, 1951; B.D., Gettysburg Theological Seminary, 1953.


Miller, William E., Associate Professor and Acting Head of Department of Logopedics (1949). B.S., University of Wichita, 1940; M.A., ibid., 1947; Ph.D., Northwestern University, 1950.

Millett, John H., Professor of Political Science (1957). A.B., Beloit College, 1940; M.A., University of Cincinnati, 1942; Ph.D., University of Illinois, 1950.

Moss, Joshua M., Associate Professor of Music Theory and Viola (1952). B.M., Eastman School of Music, 1937; M.M., ibid., 1938.

Mood, Robert Gibbs, Professor of English (1956). A.B., Southwestern University, 1920; A.M., Columbia University, 1924; Ph.D., University of Illinois, 1928.


Moorhouse, Melvin Paul, Associate Professor of Speech and Drama and Assistant to the Dean of University College (1957). A.B., Westminster College (Pennsylvania), 1955; M.A., Ohio State University, 1956.

Munsell, Marvin, Assistant Professor of Anthropology (1965). B.A., University of Kansas, 1960.


Needles, Audrey, Assistant Professor of Speech and Drama (1965). A.B., University of Denver, 1947; M.A., ibid., 1948.


Newman, Arthur N., Assistant Professor of Voice (1959). Saint Louis Opera Company; International Opera Company; NBC Opera Televisio, and New York City Center Opera.


Noel, O. Carroll, Associate Professor of Education (1950). B.S., Kansas State Teachers College, Emporia, 1921; M.A., University of Wichita, 1948.


Olson, Richard E, Assistant Professor of Economics (1964). B.S., University of Nebraska, 1955; M.S., ibid., 1961; Ph.D., ibid., 1965.


Parker, Albert R., Associate Professor of History (1952). B.S., Central State College, 1933; Ed.M., University of Oklahoma, 1942; Ph.D., ibid., 1950.


Perlman, Martin M., Assistant Professor of Economics (1965). B.A., Arizona State University, 1960; M.A., Ohio State University, 1962; Ph.D., ibid., 1965.


Poland, Leo A., Associate Professor of Accounting (1958). B.S., University of Kansas, 1947; M.B.A., Harvard University, 1948; D.B.A., University of Indiana, 1962.


Powell, Jackson O., Professor of Education and Dean of College of Education (1950). B.S., Southeastern State College, Oklahoma, 1941; M.S., Syracuse University, 1947; Ph.D., ibid., 1950.

Pronko, Henry, Professor and Head of Department of Psychology (1947). A.B., George Washington University, 1941; A.M., Indiana University, 1941; Ph.D., ibid., 1944.


Raizis, Marios Byron, Assistant Professor of English (1965). C.P.E., University of Michigan, 1954; B.Phill., University of Athens, 1956; Diploma, Institute of World Affairs, 1961; M.S., Purdue University, 1961; Ph.D., New York University, 1968.


Rhatigan, James J., Assistant Professor and Dean of Students (1965). B.A., Coe College, 1957; M.A., Syracuse University, 1959; Ph.D., University of Iowa, 1965.

Richardson, William H., Assistant Professor of Mathematics (1962). A.B., Chico State College, 1959; M.S., Iowa State University, 1961.

Rickets, Faye Margaret, Associate Professor and Head of Department of Secretarial Training (1931). A.B. in Business Administration, University of Wichita, 1927; M.B.A., University of Texas, 1932.


Ritchie, Gisela, Assistant Professor of German (1965). M.A., Free University of Berlin, 1952; Ph.D., University of Michigan, 1965.

Robertson, James P., Distinguished Professor of Orchestra and Conducting and Director of University Symphony (1949). A.B., Drake College, 1932; B.M., ibid., 1936; M.A., Teachers College, Columbia University, 1943.


Rosch, Richard, Assistant Professor of Aeronautical Engineering (1965). B.S.A.E., University of Southern California, 1958.


Ryan, Robert M., Associate Professor of Economics (1948). B.S., Michigan State Normal College, 1934; B.C.S., Detroit Business University, 1936; M.A., Wayne University, 1946.

Sabus, Francis John, Assistant Professor of Men's Physical Education (1956). B.A., State College of Iowa, 1951; M.A., State University of Iowa, 1957.

Sarachek, Alvin, Professor and Head of Department of Biology (1958). B.A., University of Missouri at Kansas City, 1948; M.A., ibid., 1950; Ph.D., Kansas State University, 1958; (Leave of Absence—1965-66).

Saviano, Eugene, Professor and Head of Department of Spanish (1946). B.S., Kansas State Teachers College, Emporia, 1936; M.S., ibid., 1937; Ph.D., University of Chicago, 1948.

Schlesier, Karl, Associate Professor of Sociology and Anthropology (1962). Ph.D., University of Bonn, 1956.

Schmidt, Donald L., Assistant Professor of Mathematics (1963). B.A., Bethel College, 1953; M.S., Iowa State University, 1955; Ph.D., ibid., 1962.


Sherman, Dorothy M., Professor of Education (1964). B.A., University of Oregon, 1932; M.A., ibid., 1934; Ph.D., Ohio State University, 1945.


Shumway, Herbert A., Assistant Professor of Administration and Director of Center for Business Management Services (1965). B.S., Northwestern University, 1929; M.A.E.A., ibid., 1929.
Simon, Clarence T., Consulting Professor of Department of Logopedics (1958). B.A., Wittenberg University, 1919; M.A., Northwestern University, 1922; Ph.D., University of Iowa, 1925; Sc.D., Wittenberg University, 1954.


Snodgrass, Fritz M., Assistant Professor of Men’s Physical Education and Track Coach (1956). B.S., Kansas State College, Pittsburgh, 1956; M.S., ibid., 1942.

Snyder, Melvin H., Jr., Professor of Aeronautical Engineering (1947). B.S., Carney Institute of Technology, 1947; M.S., University of Wichita, 1950.

Soper, Fred J., Assistant Professor of Accounting (1950). B.S., University of Kansas, 1955; M.B.A., University of Wichita, 1956; CPA Certificate, Kansas.

Sowards, J. Kelley, Professor of History and Dean of Fairmount College of Liberal Arts and Sciences (1950). A.B., University of Wichita, 1947; M.A., University of Michigan, 1948; Ph.D., ibid., 1952.

Spangler, Eugene C., Associate Professor of Speech and Drama and Director of Theatre Services (1939). B.M., University of Wichita, 1939; M.F.A., State University of Iowa, 1930.

Spomer, Marvin J., Associate Professor of Art Education (1965). B.F.A., University of Nebraska, 1958; M.S., University of Kansas, 1964.


Stabler, Robert D., Assistant Professor and Head of Department of French (1963). B.A., Stanford University, 1948; Diploma, Institut de Phonétique, Paris, France, 1949; Diploma, Université d’Aix-Marseille, 1950; Diploma, Université de Paris, France, 1952.

Steffen, Harry E., Associate Professor of Administration (1962). B.S., University of Colorado, 1942; M.S., ibid., 1948.


Sudermann, Frederick, Assistant Professor of Political Science and Director of Special Services (1964). B.A., University of Wichita, 1958; M.A., ibid., 1960.


Taggart, Clady Martha, Professor and Head of Department of Physical Education for Women (1928). B.S., State University of Iowa, 1928; M.A., Teachers College, Columbia University, 1930; Ph.D., New York University, 1939.


Taylor, Ross McLaury, Professor and Head of Department of American Civilization (1939). A.B., University of Oklahoma, 1930; M.A., ibid., 1933; Ph.D., State University of Iowa, 1938.

Teall, Mary Jane Woodard, Assistant Professor of Speech and Drama (1946). B.S., Northwestern University, 1933; M.A., ibid., 1937.


Teresa, George W., Associate Professor of Biology (1953). B.S., Arkansas A & M College, 1952; M.S., University of Arkansas, 1955; Ph.D., Kansas State University, 1959.

Terflinger, Curtis D., Associate Professor of Administration (1957). B.A., University of Kansas, 1953; LL.B., ibid., 1955.


Teufel, Hugo, Jr., Assistant Professor of Mathematics (1963). B.S., University of Kansas, 1955; M.S., University of New Mexico, 1960.


Thomas, Philip D., Assistant Professor of History (1965). B.A., Baylor University, 1960; M.A., University of New Mexico, 1964; Ph.D., ibid., 1965.


Town, Robert, Assistant Professor of Organ (1965). B.M., Eastman School of Music, 1960; M.M., Syracuse University, 1962.

Ungs, Thomas D., Associate Professor of Political Science (1960). B.A., University of Iowa, 1951; M.A., ibid., 1952; Ph.D., ibid., 1957.


Unruh, Henry, Jr., Associate Professor of Physics (1961). B.A., University of Wichita, 1950; M.S., Kansas State University, 1952; Ph.D., Case Institute of Technology, 1960.


Wall, Hugo, Professor of Political Science, Vice-President—Academic Affairs, Dean of Graduate School, and Director of Summer Session (1929). A.B., Leland Stanford University, 1926; Ph.D., ibid., 1929.

Wall, Lillian, Assistant Professor of Modern Languages (1963). B.A., Kansas Wesleyan, 1932; M.S., Kansas State Teachers College, Emporia, 1935.

Wallingford, Frances A., Assistant Professor of Piano (1956). B.M., Southwestern College, 1931; A.B., ibid., 1933; M.M., University of Wichita, 1956; Certificates, American Conservatory in Fontainebleau, France, 1928 and 1963.

Ward, David A., Associate Professor and Head of Department of Journalism (1963). B.A., Yale University, 1946; M.A., University of Michigan, 1963.


Watson, Louis W., Assistant Professor of Physics (1966). B.S., University of Oklahoma, 1956; M.S., ibid., 1963.

Watson, Tully F., Professor of Physics (1947). B.A., University of Oklahoma, 1928; M.S., ibid., 1930; Ph.D., University of Illinois, 1935.

Watson, William C., Assistant Professor of Music Theory and Humanities (1965). B.M., University of Kentucky, 1953; M.M., University of Illinois, 1959; Ph.D., West Virginia University, 1965.


Welsbacher, Richard C., Associate Professor of Speech (1958). A.B., Denison University, 1948; M.A., University of Denver, 1950; Ph.D., Ohio State University, 1964.


West, Elles C., Assistant Professor of Men’s Physical Education (1965). Physical Therapy, Karolinska University, Stockholm, Sweden, 1950; M.A., Stanford University, 1956; Ph.D., University of Oregon, 1965.

Wiebe, Raymond F., Assistant Professor and Counselor in University College (1965). A.B., Tabor College, 1953; M.S., Kansas State University, 1965.

Wilkes, Mary Nell, Assistant Professor of Secretarial Training (1956). B.S., Texas Women’s University, 1959; M.B.E., University of Colorado, 1961.


Wood, L. Curtise, Professor of Administration (1936). B.A., Coe College, 1936; M.A., State University of Iowa, 1956; Ph.D., ibid., 1956.

Woodard, Francis O., Associate Professor and Head of Department of Economics (1965). B.S., University of Nebraska, 1941; M.A., ibid., 1959; Ph.D., ibid., 1963.

Wrestler, Ferna E., Associate Professor of Mathematics (1947). B.S., Kansas State Teachers College, Pittsburg, 1924; A.B., University of Kansas, 1925; M.A., ibid., 1926.


Youngman, Arthur L., Assistant Professor of Biology (1965). B.A., Montana State University 1959; M.S., Western Reserve University, 1961; Ph.D., University of Texas, 1965.


LIBRARY STAFF—1965-1966

Carson, Doris M., Assistant Professor and Cataloger (1957). B.A., Kansas Wesleyan University, 1938; M.A., University of Kansas, 1941; M.S., University of Illinois, 1954.

Cowles, Josephine M., Associate Professor, Head Cataloger (1947). Sc.B., Ottawa University, 1928; B.S. in L.S., University of Illinois, 1936; M.S., ibid., 1949.

Drale, Mildred, Instructor and Reference Librarian (1965). B.S.E., Arkansas State Teachers College, 1949; M.S., University of Arkansas, 1952; M.L.S., Texas Woman’s University, 1959.

Dybdahl, Russell E., Assistant Professor, Documents Librarian (1956). B.A., Union College, 1937; M.A., University of South Dakota, 1947.

Johnson, Ellen M., Assistant Professor and Reference and Circulation Librarian (1959). A.B., Friends University, 1939; B.S. in L.S., University of Illinois, 1941.


Paddock, Beatrice, Assistant Professor and Humanities Reference Librarian (1962). A.B., Friends University, 1926; A.B.L.S., University of Michigan, 1930.


Taggart, Thoburn, Jr., Assistant Professor and Social Science Reference Librarian (1962). B.A., The University of the South, 1953; M.A., George Peabody College for Teachers, 1956.

Van Keuren, Katharine, Associate Professor and Assistant in Documents (1945). A.B., Fairmount College, 1922; M.A., Columbia University, 1908.


RETIRED FACULTY

Albright, Penrose S., Professor Emeritus of Physics (1943). B.S., Rensselaer Polytechnic Institute, 1922; M.S., University of Wisconsin, 1929; Ph.D., ibid., 1936.

Angulo, J. E., Retired Assistant Professor of Spanish (1961). B.S., Instituto Santiago de Cuba, 1921; A.B., Friends University, 1923; M.A., University of Kansas, 1951.


Branch, Hazel Elisabeth, Professor Emeritus of Zoology (1922). B.A., University of Kansas, 1905; A.M., ibid., 1912; Ph.D., Cornell University, 1921.

Cox, A. D., Retired Assistant Professor of Industrial Arts Education (1952). B.S., Kansas State Teachers College, Pittsburg, 1925; M.A., University of Wichita, 1940.

Downing, Jacquetta, Professor Emeritus of French (1917). A.B., Fairmount College, 1921; M.B., ibid., A.M., University of Kansas, 1922; L’Institut de Phonétique (Sorbonne), 1929.

Hagen, Eva Catherine, Professor Emeritus of English (1929). A.B., University of Kansas, 1918; A.M., ibid., 1923.

Haymaker, Mary, Associate Professor Emeritus of English (1925). A.B., Fairmount College, 1925; M.A., University of Colorado, 1927.

Hekhuis, Lambertus, Dean Emeritus of College of Liberal Arts and Sciences (1920). A.B., Hope College, 1918; M.A., ibid., 1918; B.D., University of Chicago, 1925; Ph.D., ibid., 1925.


McDonald, Clinton C., Professor Emeritus of Biology (1926). A.B., University of Indiana, 1922; M.A., ibid., 1924; Ph.D., ibid., 1926.

Poultot, Adrian, Professor Emeritus of Music Theory and Piano (1942). B.M., University of Kansas, 1923; Diploma, University of Montpellier (France), 1928; M.M., Northwestern University, 1941.

Rydjord, John, Dean Emeritus of Graduate School (1926). A.B., University of Wisconsin, 1922; M.A., Northwestern University, 1923; Ph.D., University of California, Berkeley, 1925.


Wilkie, Grace, Dean Emeritus of Women (1912). A.B., University of Kansas, 1912; M.A., Columbia University, 1926.


APPLIED MUSIC INSTRUCTORS—1965-1966

Bickford, Mary
Browne, Bruce
Callan, Edward
Near, Judith
Graber, Kenneth
Green, Betty
Griffiths, Richard
Halsted, Howard
Jamison, Iles
McConnel, James
Miller, Margaret
Pierce, Beatrice
Roller, Roger
Rogers, Wayland
Sweazy, Ann
Taylor, Patricia
Weinacht, Philip
DESCRIPTION OF THE UNIVERSITY

Wichita State University traces its origin to Fairmount College, which was founded by the Congregational Church in 1895. In 1926, the citizens of Wichita approved the proposal that Fairmount College become a municipal institution. The Municipal University of Wichita was established that year. The Kansas legislature and the citizens of Wichita agreed in 1963 that the University should be added to the Kansas state system of higher education. Wichita State University came into being on July 1, 1964, as an associate of the University of Kansas, with the Kansas Board of Regents as its governing body. The campus is situated in the northeastern section of the city. Its 45 buildings house the classrooms, laboratories, shops and offices required by the programs of eight schools and colleges. These academic units are the University College, Fairmount College of Liberal Arts and Sciences, College of Business Administration and Industry, School of Engineering, College of Education, College of Fine Arts, Graduate School, and the Summer School. Baccalaureate degrees are offered by the faculties in the schools and colleges of Liberal Arts, Business Administration, Engineering, Education, and Fine Arts. These same programs offer a variety of studies leading to master’s degrees, a specialist’s degree, which are conferred through the Graduate School, and a program of studies which may lead to the doctor of philosophy in pedagogy. The Division of Student Services has special responsibility for student welfare.

Programs at Wichita State University are accredited by the following professional organizations: North Central Association of Colleges and Secondary Schools, the National Council for the Accreditation of Teacher Education, the National Association of Schools of Music, the Engineers’ Council for Professional Development, and the American Chemical Society Committee for the Professional Training of Chemists.

Women graduates of the University with bachelor’s degrees or higher are eligible for membership in the American Association of University Women.

The faculty and administration of the University have since the inception of Fairmount College identified with the tradition of liberal education. Indeed they are dedicated to the furtherance of the University ideal: To the transmission of knowledge, to the stimulation of critical faculties, to the development of values, to the practice of good citizenship, to the pursuit of a sense of vocation, and, in general, to the creation of an academic fellowship of ideas to nurture the individual and promote the good society. The program in general education subscribed to by the academic faculties of the University is in testament to that commitment.

The nature of its calling causes to devolve upon this urban establishment for higher learning certain other obligations. It must not only respect learning; it must provide opportunities for advanced and professional study: It must make available its specialized facilities to other elements of the society, and make arrangements for continuing educational possibilities for young working adults and for persons in their late maturity, and it must stimulate research and inquiry. These obligations are, in truth, a general statement of the mission of the University.

ADMISSION REQUIREMENTS

All students entering Wichita State University for the first time must file an application for admission with the Office of Admissions, Wichita State University. Transcripts of high school and college work must be submitted before a student may enroll.

Transcripts received in the office of the Director of Admissions will not be returned to the applicant. If the student enrolls, the transcripts are retained by the University for its official files. If a student does not enroll, the transcripts are destroyed.

New students may begin their college study during the Summer Session, the Fall Semester, or the Spring Semester. The application and supporting transcripts must be received well in advance of the term in which the applicant wishes to begin study. An application for admission should be mailed by June 1 for the fall semester and by December 1 for the spring semester. Both application and transcripts of previous work must be received on or before August 10 for fall registration and January 15 for spring registration. Applications by Kansas residents received after these dates will be processed as vacancies in University programs permit. High school seniors are encouraged to make application early during the senior year of high school. Prospective students are invited to visit the campus for the purpose of discussing their educational plans with University staff members, and the student should begin his visit by reporting first to the Admissions Office, Jardine Hall.

Freshmen

Any graduate of an accredited Kansas high school who has not previously attended a college will be admitted on application to Wichita State University. A graduate of an out-of-state accredited high school or preparatory school will be eligible for admission if the applicant ranks in the upper one-half of his high school graduating class. Exceptions may be made
under special circumstances when valid reasons prevail. Priority of admission among out-of-state students will be given to sons and daughters of alumni of this University.

An applicant without a secondary school diploma who wishes to be considered for admission to freshman standing should present his case to the Director of Admissions. Students who have not completed high school may be admitted upon the presentation of fifteen acceptable units of proper quality, statement from the high school principal, and approval of admissions committee. The University Committee on Admissions will examine the evidence for admission and make its determination upon the individual merits of the case.

Admission of special students is restricted to persons over 21 years of age who are not candidates for degrees. Upon completion of sixty semester hours with a 2.00 average, a special student may petition for admission to regular standing. Any other special petitioner should present his case through the Director of Admissions for the Committee on Admissions.

All entering freshmen are enrolled in University College and are required to complete the American College Testing Program Battery, the freshman reading test, and a Health Certificate, as a part of their enrollment in University College. The dean of University College will send all freshmen complete information about orientation and enrollment. High school seniors should arrange to complete the American College Testing Program Battery through the offices of their high school principal or counselor.

Transfers

Students who have been enrolled in other colleges or universities will be eligible for admission to undergraduate study if they have honorable dismissal from the last recognized college or university attended and meet the required scholastic standards of Wichita State University.

Transfer students with 24 or more units of acceptable college credit are not required to complete the freshman examinations.

Transfer students with 24 or more acceptable hours, and not on probation, are eligible to apply for admission to a baccalaureate degree college if they meet specific requirements.

ADMISSION TO ADVANCED STANDING

The regulations governing admissions to advanced standing in the colleges of Wichita State University are administered by a committee on advanced standing which evaluates the credentials of each candidate.

These credentials must include original official transcripts of preparatory school records and college records, and a certificate stating that the student is eligible to return to the college or university last attended. Students transferring from a junior college must complete at least two years of additional college work to qualify for graduation in a four-year curriculum. In no case will work done in a junior college be credited as work of the junior or senior years in the University.

A student transferring from an accredited institution shall receive the credit in the courses submitted, without presentation of a written examination, provided it supplements the work in the curriculum in which he is enrolled.

The distribution of courses which are to fulfill either a major or minor presented by a transfer student must be approved by the head of the department concerned. In the event the courses transferred complete the pattern required at Wichita State University, the requirement of additional work is at the discretion of the department head. Should the pattern involve two or more departments, approval of each must be secured.

CREDIT BY EXAMINATION

Advanced standing credit may be obtained by examination. A student desiring advanced standing credit by examination should file a petition with the Committee on Admissions, Advanced Standing, and Exceptional Programs. No one may apply for permission to take an advanced standing examination unless he has a minimum of 15 semester hours of credit at Wichita State University. If the request for an examination is approved by the committee, the student will pay the Controller the $5.00 fee. Upon presentation of the receipt from the controller, the assigned instructor will give the examination. Credit will be granted only if a grade of C or better is attained and approval is given by the Committee. D and F grades will be recorded on the student's transcript.

ADVANCED PLACEMENT CREDIT

The designation “Advanced Placement”—programs, or credit, refers specifically to the courses offered in many high schools, constructed and coordinated under the supervision of the College Entrance Examination Board, examinations furnished by the C. E. E. B. are taken by the student and later sent to the Educational Testing Service for grading, and subsequently sent by E. T. S. to the college or university of the student's choice. Tests are assigned grades from a low of (1) to a high of (5); at most universities such numerical designations have no necessary relationship to letter grades, although most universities automatically grant credit for a grade of 4 or 5, and in some cases for a 3.

At Wichita State University, Advanced Placement credit may be granted in the areas of Biology, Chemistry, English, French, German, History, Mathematics, Physics, and Spanish. The corresponding university department, however, reserves the right to determine the eligibility of the student for Advanced Placement credit. Such credit may be regarded as comparable to other transfer credit, in that no fee is charged, nor is the student re-examined over such credit or content.

Entering freshmen who on the CEEB test score 2 or 3 will receive three hours credit for English 111 and will also go into English 211 to complete their six hours core requirement in composition; those scoring
4 or 5 will receive credit for both English 111 and 211, thus completing their composition requirements. Students planning to major in English may be permitted to enroll in English 225 in lieu of 211 upon recommendation of the English Department.

ADMISSION TO GRADUATE SCHOOL

Applications for admission to graduate standing should be filed with the Graduate School three weeks in advance of the registration day, and should be accompanied by two complete and official transcripts of all college work not already in the Office of Admissions and Records at Wichita State University.

Students have no official status in the Graduate School until their applications and transcripts are on file and the transcripts have been evaluated by the Graduate Office.

Wichita State University offers graduate work in the following departments: Accounting, Administration, Aeronautical Engineering, Art, Biology, Chemistry, Economics, Electrical Engineering, English, Geology, History, Logopedics, Mathematics, Mechanical Engineering, Music, Philosophy and Religious Education, Physical Education, Physics, Political Science, Psychology, Sociology and Anthropology, Spanish, and Teacher Education.

For graduate work a prerequisite of 24 hours is required in the major field except for Education where the requirements for state certification serve as the prerequisite. Exceptions to these rules may be made when the objectives require a combined undergraduate major. The following departments require a reading knowledge of a modern foreign language for the master's degree: Biology, Chemistry, English, Geology, History, Logopedics, and Psychology. The department of Sociology and Anthropology makes the requirement contingent upon the nature of the thesis topic. The Spanish department requires a reading knowledge of a second Romance language or of Latin. The Department of Art requires that Art History students pass a reading examination in French or German. Language requirements must have been completed before the student is admitted to candidacy.

An application to candidacy should be filed in the Graduate Office upon completion of 10 graduate hours toward the degree. This application must be filed upon the completion of 15 graduate hours.

For admission to full graduate standing an applicant must have a 2.5 grade average in all work undertaken during the junior and senior years, and a four-year average of 2.5 in his major and minor work.

Graduate Credit for Seniors

Seniors at Wichita State University who have an overall grade point index of 3.0 or above in the major field and in upper division courses and who are within 10 hours of completing the Bachelor's degree may take work for graduate credit. However, this work must be beyond the requirements for their undergraduate degree, for which they must then be enrolled; and, the students must have been admitted to the Graduate School. Application for graduate credit must be made to the Graduate School and approved by the Graduate Office, the student's undergraduate Dean, and his major advisor, before the course(s) may be taken for graduate credit.

For further information inquire at the graduate office or request a graduate bulletin from the Dean of the Graduate School.

REGISTRATION

Specific information regarding registration is set forth in the Schedule of Classes published each semester and summer session. Registration will not be permitted after the second week of classes. Falsification of information or withholding of information pertinent to records of the University is grounds for dismissal from the University.

RESIDENCE DEFINED

The residence of students entering Wichita State University is determined by an act of the legislature (Sec. 76-2701 G. S. 1949), which reads as follows:

"Persons entering the state educational institutions who, if adults, have not been, or if minors, whose parents have not been, residents of the state of Kansas for six months prior to matriculation in the state educational institutions, are non-residents for the purpose of the payment of matriculation and incidental fees: Provided further, that no person shall be deemed to have gained residence in this state for the aforesaid purpose while or during the elapse of time attending such institutions as a student, nor while a student of any seminary of learning, unless, in the case of a minor who has neither lived with nor been supported by his parents or either of them for three years or more prior to enrollment and during said years has been a resident in good faith of the state of Kansas."

The responsibility of registering under proper residence is placed on the student. If there is any possible question of residence under the rules of the college, it is the duty of the student when registering and paying fees to raise the question with the Director of Admissions and Records.

Reporting change of address: Each student is required to report his correct address at the time of registration each semester. This must be the student's actual place of residence and will be the one to which all University correspondence will be sent. If any change in residence is made during the semester, the new address must be reported within three days to the Office of Admission and Records.

FEES

Incidental Fee

<table>
<thead>
<tr>
<th>Type of Student</th>
<th>Fee</th>
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<tbody>
<tr>
<td>Resident (Graduate and Undergraduate)</td>
<td>$7 per cr. hr.</td>
</tr>
<tr>
<td>Non-Resident (Graduate)</td>
<td>$10 per cr. hr.</td>
</tr>
<tr>
<td>Non-Resident (Undergraduate)</td>
<td>$20 per cr. hr.</td>
</tr>
</tbody>
</table>

WICHITA STATE UNIVERSITY
Campus Privilege Fee

The Campus Privilege Fee is required of every student enrolled for work on or off the Wichita State University campus at the rate of $2.25 per credit or clock hour during the regular semesters and $2.00 during the summer session, in accordance with University policy. The fee will be distributed to pay for Parking, Student Union, and Library Revenue Bonds, and for Student Health Services, Athletic Admissions, forensic, student government association, University Forum, student publications, concerts, drama, opera productions, etc.

Library Revenue Bond Fee

A Library Revenue Bond Fee of $2.50, per student per semester and summer session, is charged to support the Library Revenue Bond issue.

Departmental Fees

During the academic school year, undergraduates enrolled in six or more hours will be charged no fees for the following ensembles: Music 111-512A, 111-512B, 111-512F, and 111-512M. No fees will be charged graduate students enrolled in the above courses. Summer Session: No fees for these ensembles will be charged to undergraduate or graduate students enrolled for two or more credit hours in courses other than the above.

The fee for Psychology 60, Improvement of Reading Techniques, a service course carrying no credit, is $10.00 for either resident or nonresident students.

The charge per semester hour for courses audited is the same as for courses taken for credit. The charge for non-credit courses, unless otherwise specified, is the same as for credit courses.

Mathematics 50, 60 and 70 will be charged incidental fee rates on a clock hour basis.

Air Science Activity fee ........................................ $9.50
Military Science Activity fee ................................ 9.50

Music

Practice Room Rental Fee: No additional charge for graduate or undergraduate students enrolled in a program with major emphasis in music or for music minors in the College of Education or Fairmount College of Liberal Arts and Sciences. The schedule below applies to all other persons:

<table>
<thead>
<tr>
<th></th>
<th>Resident and</th>
<th>Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Semester</td>
<td>Summer</td>
</tr>
<tr>
<td>Organ (University)</td>
<td>$10.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>All Other</td>
<td>5.00</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Instrument Rental: Instrument Rental fee of $4.50 per semester and summer session is charged each student requesting the use of a musical instrument owned by Wichita State University.

Private Lessons: No additional charge for graduate or undergraduate students enrolled in a program with major emphasis in music or for music minors in the

College of Education or Fairmount College of Liberal Arts and Sciences. The schedule below applies to all other persons.

<table>
<thead>
<tr>
<th></th>
<th>Resident and</th>
<th>Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Semester</td>
<td>Summer</td>
</tr>
<tr>
<td>Cost for 1 credit hour</td>
<td>$23.00</td>
<td>$11.50</td>
</tr>
<tr>
<td>Cost for 2 credit hours</td>
<td>42.00</td>
<td>21.00</td>
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</tbody>
</table>

Miscellaneous Fees

Late Registration Fee ........................................ $15.00

A fee of $15 is charged for registration after the beginning of classes.

Credit by Examination ...................................... $5.00

A fee of $5.00 is charged for every examination administered for advanced standing credit, payable in advance of the examination.

Transcript .................................................................. $1.00

A fee of $1.00 is charged for each transcript after the first copy which is prepared without cost.

Teacher Placement Fee ........................................ $2.00

A fee of $2.00 per student is charged for those requesting teacher placement service.

Deposits

In certain courses deposits are required to cover the cost of supplies and equipment furnished by the University for the convenience of the student, to provide for the replacement of University equipment checked out to the individual student and lost or broken while in his possession, or to cover the cost of transportation for Geology field trips. That portion of the deposit, if any, which remains after the actual cost of these services has been deducted will be returned to the student at the completion of the semester. The following courses require deposits as indicated.

Chemistry: All laboratory courses each $10.00
Geology: 225, 335 each 5.00
Geology: 336 15.00

The Office of Admissions and Records is responsible for assessment of student fees; the Controller is responsible for their collection. A committee consisting of the Business Manager, the Dean of the Graduate School, and a faculty member from the College of Business Administration constitutes a Board of Appeals for students who believe their fees have been incorrectly assessed. The decision of this committee is final.

Period of Payment

All semester fees (including private music lesson fees, practice room rental fees, the laboratory fees) are due and payable in full not later than thirteen calendar days after the day of beginning of classes of the semester. The enrollment of any student whose fees are not paid in full on the fourteenth calendar day after day of beginning of classes will be cancelled by the Office of Admissions and Records. (Fees of students sponsored by recognized foundations or loan funds are presumed to be paid on presentation to the Controller of written recognition of responsibility for such fees.)
Refunds

In case of withdrawal from the University within thirteen days after the first day of classes, the total amount of incidental, campus privilege, private lessons and practice room rental fees paid by the student will be refunded to the student upon his application, except for $15 of non-refundable fees. In case of withdrawal after the thirteenth day after the first day of classes, and during the first one-third of the semester or summer session, one-half the amount of incidental, campus privilege, private lessons, and practice room rental fees paid by the student will be refunded to the student upon application, except for $15 of non-refundable fees. In both cases, for students carrying seven hours or less, the non-refundable fee is $5. No refund of fees is made to the student withdrawing after the first one-third of the semester or summer session.

Continuing Education

Credit Courses per semester credit hour:

Resident .............................................. $7.00
Non-Resident (Undergraduate) ................ $20.00

The Campus Privilege Fee is required of every student enrolled for work on or off the Wichita State University campus at the rate of $2.25 per credit or clock hour during the regular semester and $2.00 during the summer session, in accordance with University policy.

A Library Revenue Bond Fee of $2.50 per student per semester and summer session is charged to support the Library Revenue Bond issue.

REGULATIONS GOVERNING SCHOLARSHIP

GRADING NOTATION

Grades are A, B, C, D, I, F, WF, Wd, Au, and Cr.
A—Indicates distinguished achievement.
B—Indicates superior achievement.
C—Indicates average achievement.
D—Indicates below average.
F—Indicates failure; the work must be repeated in class in order to receive credit.
WF—Indicates withdrawal from a course in which the student was doing failing work. Counts as F.
Wd—Indicates withdrawal from a course in which the student was doing passing work.
Au—Indicates audit.
Cr—Indicates credit.

The grade incomplete (I) is used when a student may have further time, at the discretion of the instructor, to complete the required work. This work must be completed by the end of the sixth week of classes of the semester in which the student re-enrolls. If the work is not completed in this period, the incomplete grade becomes an F. If a student re-enrolls in a course in which he has received an incomplete grade, the incomplete will become either an F or a Wd at the discretion of the instructor or Dean.

No student may enroll in any course more than three times. Each time a student's academic record shows any grade, including Wd or WF, for a given course, this constitutes an enrollment in that course. Exceptions may be made by concurrence, in writing, of the heads of the student's major department and the department offering the course. No course in which a grade of "C" or better has been earned may be repeated for credit.

An auditor may register in a class but will receive no credit. He may do all of the required work, a portion thereof, or no work at all. For the record, attendance and failure to do the required work will be reported to the respective deans. Fees for audit are identical with those set for the credit course. Auditing a course later to be pursued for credit is not approved.

The change from audit to credit in the course, or the reverse, is effected through the regular change of course cards with the attendant signatures required. No student may make the change from credit to audit unless he is earning a passing grade at the time of the change. After the tenth week of the semester, the student may not change from credit to audit. Courses in Secretarial Training may not be audited.

The grade Cr is given for successful completion in courses for which no letter grade is given.

CREDIT POINTS AND CREDIT POINT INDEX

For each hour of work which the student takes, credit points are given according to the grade attained as follows: A, 4 points; B, 3 points; C, 2 points; D, 1 point; I, Wd, and Au, F and WF, no points. The "credit point index" for any term is calculated by dividing the number of credit points earned by the number of credit hours attempted and for which a grade (including F and WF) was received. The "cumulative credit point index" is calculated by dividing the Total number of credit points earned in college by the Total number of credit hours attempted and for which a grade (including F and WF) has been received. Exception: When a course is repeated for credit, the last enrollment and grade will be used in computing the cumulative grade point index.

PROBATION AND SUSPENSION STANDARDS

Probation

(1) A student will be placed on probation for the next term in which he enrolls if his cumulative grade point index falls below the requirements of the college in which he is enrolled.

(2) Probation is removed when the cumulative grade point index reaches the required level.

(3) The student remains on probation if he earns at least a 2.000 index in the term during which he is on probation and his cumulative grade point index does not yet meet the minimum standards.

(4) A student on probation may not enroll for more than 12 semester hours in an eighteen week term or
Courses numbered 200 to 299 are primarily for sophomores, but juniors and seniors may be admitted for lower division credit. Freshmen may be admitted if they are qualified and are not expressly excluded.

Courses numbered 300 to 399 are primarily for juniors. Seniors will be admitted. Freshmen and sophomores are excluded except as noted below.

Courses numbered 400 to 499 are primarily for seniors. Juniors may be admitted if they meet the prerequisites and are not specifically excluded. Freshmen and sophomores are excluded except as noted.

Courses numbered 500 to 699 are for graduate students only, and no student may be admitted to these courses unless he has been admitted to the Graduate School. See page 17 for special conditions under which seniors may be admitted to graduate courses.

Students with completed prerequisites in industrial education, language, mathematics, natural sciences, aerospace studies, and military science courses may be admitted to upper division courses in sequence for upper division credit. Lower division students who have completed Adm. 266 may be admitted to Adm. 366 for upper division credit. With these exceptions lower division courses must be taken exclusively until the student has completed 50 hours and 120 credit points, when he may elect upper division courses.

**KEY TO COURSE SYMBOLS**

When two course numbers are joined by a hyphen, the first semester is prerequisite to the second; when the numbers have an ampersand (&) between them, the two semesters may be taken in either order. Unless specifically noted otherwise, the first course listed is offered in the fall semester, the second in the spring.

The number of hours of credit for each course is indicated in parentheses following the course title. The number of class meetings per week is normally the same as the number of credit hours. Two hours of laboratory work are usually required for one hour credit. In courses involving other than lecture periods the following symbols are used: R, lecture; L, laboratory; C, conference; D, demonstration.

**LIMITATIONS ON STUDENT LOAD**

Except in the School of Engineering, the maximum semester schedule for freshmen is 15 hours, for sophomores 17 hours, and for upperclassmen 18 hours, to each of which may be added one hour of military or aerospace studies or physical education. Half the hours of a course audited count toward the maximum. To register in upper division courses, except by special permission, a student must have completed 50 semester hours and attained 120 credit points.

A student whose average for the last 30 hours of work or whose over-all average for more than 30 semester hours is 2.600 or above may apply to his Dean for permission to take one hour in excess of the maximum load in any session; if the average is 3.000 he may apply for permission to carry two hours in excess. A student with a cumulative credit point index of 3.25
or above may carry more than two excess hours during a semester or summer term without petition. Students in the School of Engineering must apply for permission to take hours in excess of those prescribed in the engineering curricula. In order to be eligible to apply for excess hours at least a portion of the students' prior work must have been taken in Wichita State University.

EXEMPTIONS FOR SUPERIOR ACHIEVEMENT

A student who has completed a minimum of twelve hours at Wichita State University and has a cumulative credit point index of at least 3.25 and a credit point index of at least 3.00 the previous semester may be granted the following privileges:

1. Exemption from regulations governing the maximum number of hours a student can take during a semester or summer term.
2. Exemption from college regulations, if any, governing the maximum number of hours a student can take during a semester in one department.
3. Permission to enroll in 300 and 400 courses prior to having established 50 semester hours and 120 credit points.
4. Permission to have course prerequisites waived with the consent of the instructor of the course and the head of the department in which the course is taken.

UNIVERSITY HONORS PROGRAM

Each year a limited number of exceptional freshmen are invited to participate in the University Honors Program. Students not admitted to the program as entering freshmen may be admitted to the program if they demonstrate superior performance and potential in their studies at the University. Exceptional transfer students may also be invited to participate.

HONORS COURSES

Specially designated honors sections, at both lower division and upper division levels, are normally offered each semester. These sections are restricted to honors students and are gauged to meet the needs of the superior student.

Honors courses, which are not regular class work but are individual programs of study carried by the student as original projects under the direction of a professor, are also open. These courses are intended to permit individual research or other creative projects. A student need not be in the general honors program, as described above, to enroll in individual projects. Any student who has attained junior standing and whose record shows a cumulative grade index of at least 3.00 is eligible to apply for admission to an Honors Course in the field of his major study. The course may be pursued for one or two years. During that time the student's grade index shall not fall below 2.80.

The application for admission to an Honors Course must include a written statement of the proposed proj-

ect for individual study. This must be recommended by the dean of the college, the head of the department, and the instructor under whom the work will be taken. The application must be filed in the Graduate Office not later than the beginning of the senior year and be approved by the Graduate Council.

Academic credit up to a maximum of six semester hours may be earned in an Honors Course, with individual departments determining the maximum credit which may be earned in that department. Upon completion of all requirements, the student will be graduated with honors in the field of his major study, and his diploma will carry a statement to that effect. Should he fail to secure honors, credit will be applied toward the regular degree.

To secure graduation with honors, the student must complete his project to the satisfaction of the faculty adviser, write a thesis or its equivalent on his study, and pass an oral examination over his thesis and his major field.

A committee of three shall be appointed by the dean of the Graduate School to conduct the oral examination.

STUDENT RESPONSIBILITY

1. The student shall consult his adviser on all matters pertaining to his academic career, including any change in his program.
2. The student shall observe all regulations of his college, and shall select courses according to the requirements of his college.
3. The student shall attend all meetings of each class for which he is enrolled. The instructor will announce at the beginning of the semester whether he considers attendance in computing final grades.
4. The student shall fulfill all requirements for graduation.
5. The student shall be personally responsible for the fulfillment of all University requirements and the observation of all University regulations.

(6) Summons by Advisers and other officers: Students are expected to answer promptly, written notices of advisers, faculty, deans, Student Health and other University Officers.

WITHDRAWAL

Voluntary Withdrawal

Voluntary withdrawal on the part of the student from a course or courses in which he is enrolled must follow official procedure:

PROCEDURE

1. Consult adviser; obtain Drop slip(s) at this time, and have adviser sign in appropriate place.
2. Take Drop slip(s) to instructor(s) for grade and signature.
3. Take Drop slip(s) to student's Office for final signature.
4. Take completed Drop slip(s) and Paid ID-Card to Dean's Office for final signature.
5. Take completed Drop slip(s) and Paid ID-Card to Office of Admissions and Records.
(5) Refund, if any, will be made according to the schedule published in the Schedule of Classes.

(6) Complete withdrawal from the University must be made in writing to the Dean's Office.

GRADE

(1) A Drop slip marked "Wd" indicates that withdrawal from the course has occurred, but no grade has been earned.

(2) A Drop slip marked "WF" indicates that withdrawal from the course has occurred, that a grade of "WF" will appear on the student's permanent record, and that this grade will count as an "F" when the student's grade point average is calculated.

(3) During the first ten weeks of the semester (or the corresponding period of a summer session), a student may withdraw by official procedure from a course with either "Wd" or "WF" depending on his status in the course at the time of withdrawal, as judged by his instructor.

(4) After the tenth week of the semester (or the corresponding period of a summer session), a student who withdraws from a course shall receive the grade of "WF" unless he makes complete withdrawal from the University, in which case his grades shall be determined by his instructors according to his status in the courses at the time of withdrawal.

Administrative Withdrawal

Administrative Withdrawal may be initiated by the student's Dean's Office in the following instances:

Class attendance so irregular that in the instructor's opinion full benefit cannot be derived from the course;

Consecutive absence for two weeks or more;

Failure to withdraw from one or more classes by the official procedure given above;

Failure to make complete withdrawal from the University by the official procedure given above;

Failure to be accepted by a baccalaureate college;

Behavior prejudicial to the University.

PROCEDURE

(1) The student will be notified by the Dean's Office before final action is taken, and will be given a chance to explain his position.

(2) In the case of official notices from the Dean's Office which are ignored, or returned because the address given by the student at the time of enrollment is incorrect, Administrative Withdrawal will take place.

GRADE

A grade of "WF" will be officially recorded on the student's permanent record for a course or courses from which he is officially withdrawn; this grade will count as an "F" when the student's grade point average is calculated.

RULES REGARDING EXAMINATIONS

No re-examination shall be given. The grade received on a regular quiz or examination shall be final.

Special examinations, when requested, will be given only with the dean's consent.

A student who misses an assigned examination should arrange with his instructor to take a make-up examination. The dean of the college will serve as arbiter only when he deems it necessary.

UNIVERSITY REQUIREMENTS FOR GRADUATION

A total of at least 124 hours of credit, acceptable toward the degree for which the student is working, is required. This means hours of credit earned and does not include courses with grades of Wd, WF, Au, or I.

In addition, a student must have a credit point index of 2.000 or over at the time of graduation. This rule applies to students whose first date of admission to any institution of collegiate rank was on or after September, 1958.

A credit point index of 2.000 or better must be achieved in the student's major.

A minimum of 40 hours must be taken in courses numbered 300 and 400 after a total of at least 50 hours and 120 credit points has been attained.

At least 30 hours must be taken at Wichita State University and 24 of the last 30 hours or 50 of the last 60 must be taken in residence.

Not more than six hours of the last thirty or ten hours of the total number of hours required for graduation may be non-resident work, such as extension or correspondence courses, provided the dean of college consents.

PRESCRIBED FIELDS OF STUDY (CORE CURRICULUM)

(I) Mathematics and Natural Sciences: 9 hours. Courses must be taken in at least 2 of the four subdivisions; a minimum of four hours must be a laboratory science.

(a) Mathematics: 121 (3), 141 (5); alternates: Any mathematics course taken for credit.


(c) Biology: 100 (4), 111 (4), 112 (4). Biological Science: 102 (5).

(d) Engineering 300 (2).

(II) Communications: 8 hours. 6 hours must be in English composition or grammar* and 2 in Speech 111.

(a) English 111* (3); and one of the following courses: 211 (3), 225 (3), 311 (3), 312 (3), 313 (3), 314 (3), 315 (3).

(b) Speech 111 (2), additional courses: 212 (2), 228 (3).

* Students exceptionally qualified in English as selected by the English Department may be exempted from the composition requirement or may be invited to enroll in English 211 rather than 111. These students, upon completion of English 211 or upon recommendation of the Department, will have satisfied their English Communications requirement. Otherwise they must complete the requirement with one of the additional English courses listed above under "Communications."
(III) Humanities: 12-15 hours.** Courses must be taken in at least 3 of the five subdivisions.
(a) Art: 101 (3), 102 (3), 305 (3); alternates: 303 (3), 401 (3), 460 (3), 461 (3).
(b) Music: 113 (2), 114 (2), 161 (2), 331 (2), 332 (3); ensembles and applied music where background justifies.
(c) History: 101 (4), 102 (4), 113 (3), 114 (3), 131 (4), 132 (4), and all upper division courses except 300 and 498.
(d) Literature (English or foreign): English 221 (3), 222 (3), 223 (3), 251 (3), 252 (3), 310 (3); plus all literature courses as alternates; French, German, or Spanish literature courses.
(f) Humanities: 102 (4).

(IV) Social Sciences: 9-12 hours.** Courses must be taken in at least 3 of the four subdivisions.
(a) Economics: 221 (3), 222 (3), any upper division course.
(b) Political Science: 100 (3), 121 (3), 211 (3).
(c) Psychology: 111 (3), 112 (2), 246 (3).
(d) Sociology: Sociology and Anthropology: 111 (3), 124 (3). All other sociology courses may be counted after the student has completed Sociology 111. All other anthropology courses may be counted after the student has completed Anthropology 124.

(V) Physical Activities: 4 hours. At least 2 hours must be in one subdivision. (Must be taken in at least four separate semesters.)
(a) Aerospace Studies: 113 (1), 114 (1), 223 (1), 224 (1).
(b) Military Science: 113 (1), 114 (1), 223 (1), 224 (1).
(c) Physical Education: (men), any of the 101-108 series, (1) each; only 1 hour in each varsity activity may be taken in the P.E. 101-4 series; (women), any of the 101-108 series, (1) each.
(d) Marching Band (1).
Any student who has passed his twenty-fifth birthday prior to the beginning of a semester is excused from the physical activities requirement.

The credits of transfer students will be evaluated on the basis of the nature of the course at the institution from which the transfer is made.
The student must meet the specific graduation requirements of the college from which he expects to graduate.
The specific requirements for major and minor fields of study must be met.

A student whose college program has not been in-

** Selection from III and IV must total 24 hours with a minimum of 18 in group III and a minimum of 9 in group IV.

terrupted by more than two consecutive calendar years may graduate under the requirements in effect at the University on the date he first entered any College or University or the requirements of any subsequent catalog; provided however, that in no case will a student be allowed to graduate under the requirements of a catalog in effect earlier than two years preceding his matriculation at this University. If his college program has been interrupted by more than two consecutive years a student will be subject to the catalog requirements in effect when he re-enters, or if he elects, the requirements of a later catalog.

HONORS
Graduation With Honors
Degrees are conferred with honors upon students who have shown exceptional scholarship. Students attaining a scholarship index of 3.90 receive the summa cum laude, those with an index of 3.55 receive the magna cum laude, and those with an index of 3.25 receive the cum laude award.

The Dean's List
To recognize meritorious academic achievement and to stimulate those who have the capacity for superior work, a dean's list is published each semester, citing for recognition students in the upper ten percent of their respective classes in each college, but no student with a credit point index of less than 3.25 is so cited.

STUDENT PERSONNEL SERVICES
Student services of universities today concern themselves with the non-curricular aspects of a student's development. At Wichita State University, such services are the responsibility of the Office of Student Personnel Services. All requests for information not provided in this catalog should be addressed to the Dean of Students.

Human Relations
Wichita State University, in pursuit of its educational goals, welcomes students of all races, nations, and creeds. It is guided by the principle that equal opportunity and access to facilities, programs, and services shall be available to all. The University accepts, as a primary responsibility, the implementation of this principle in its own affairs and in its relations with the broader community of which it is a part.

ORIENTATION
Pre-Freshman Period
Pre-freshman orientation has the following purposes: To acquaint the new student with college life, organization, and regulations; to learn as much as possible about the new student through counseling and testing; to acquaint students with each other; and to encourage development of community spirit through a planned social program.

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Continuing Orientation

To help new students make the most effective use of their university experience, a continuing orientation program is provided. See UNIVERSITY COLLEGE section on Orientation and Advising for a detailed description.

COUNSELING

Professional Counseling is available on a voluntary basis for students seeking such services. Areas specifically served include:

1. Emotional and adjustment difficulties.
2. Vocational and professional planning.
3. Marital counseling.
4. Educational counseling as related to 1, 2, and 3 above.

ADVISEMENT

Each student is assigned to a faculty member whose responsibility it is to advise him in academic matters. In the event that either the student or the faculty member feels that the student is in need of more professional services, a referral to the Counseling Center may be made.

FOREIGN STUDENTS

The University welcomes students from abroad. There are, however, no scholarships or grants available to the newly-entering foreign student, so it is imperative that he have sufficient funds to cover his expenses while in this country.

Admission Requirements

1. Graduation from an accredited high school or college.
3. Notarized statement of financial responsibility in an amount of $1,800.00 or more to cover at least one academic year's expenses.
4. Enrollment in at least 12 hours at the undergraduate level and in at least 9 hours if qualified at the graduate level.

For further information, write to the Foreign Student Adviser.

PLACEMENT OFFICE—STUDENT EMPLOYMENT

The University Placement Office has three functions:

1. To help students find part-time jobs to earn part of their expenses. While the University does not guarantee jobs, students who want to work can find employment, either on or off campus. Inquiries are invited.
2. To help seniors find career opportunities by campus interviews with national, state, and local firms, and by individual listings. Counseling and other aids are available.
3. To perform the same functions as above for alumni of the University.

The Placement Office actively promotes opportunities for students in the above areas. (Teacher Placement is handled separately.) Students are encouraged, however, to avoid excessive work schedules. Academic progress may suffer, which in turn may result in an extra semester or summer session expense. Students are urged to assess their academic ability, class schedule, and financial need carefully before deciding to work more than 20 hours per week. Students on scholastic probation are not allowed to hold a campus job.

TEACHER PLACEMENT BUREAU

Assistance is given to students and alumni desiring teaching positions. The service is available only to students who have completed 15 semester hours at the Wichita State University and who have an over-all C average. The registration fee of $2.00 is to be paid to the University cashier. Application forms may be obtained from the Teacher Placement Bureau.

VETERANS' AFFAIRS AND SELECTIVE SERVICE

There are certain problems of special concern to veterans and to those students who must maintain continuing relations with local draft boards. To assist these students with problems, the University provides the services of a Veterans' Adviser.

READING IMPROVEMENT LABORATORY

The University provides special aid to students who wish to improve skills in reading and study habits. A non-credit course aimed primarily at reading improvement is available. In connection with this service a battery of tests is administered, and through individual conferences an attempt is made to identify particular weaknesses and to suggest ways to overcome them. A further description of the reading course can be found in the listings of the Psychology Department and University College.

HOUSING

Recognizing the influence which on-campus living facilities have on the development of social competence and on the entire educational experience, the University maintains residence halls for women and men. Housing contracts cover room and board at $725.00 per year. This is payable in advance at $362.50 per semester or in four installments, one at $100 and three at $90 each per semester, as stipulated in the residence hall contract. A deposit of $50.00 should accompany the application for space in a residence hall. This should be done by June 1. Housing rental does not cover occupancy during Christmas recess.

When a housing shortage exists, students living off-campus at the University’s request may, upon application, secure a separate meal contract as long as space is available.

All single, undergraduate students under 21 not living with parent or guardian who are enrolled in nine or more hours for credit must live in University-supervised or University-approved housing, the final deci-
sion being the prerogative of the University. No contracts for non-university housing should be made before securing approval in the Office of Student Personnel Services, Morrison Hall. The University reserves the right to make policy adjustments where the situation demands and to change the residence of any student or to deny or cancel residence accommodations of any student, in cases where such action is deemed desirable.

Admission to the University does not mean automatic room reservation. For complete information write to the Director of Housing, Morrison Hall, Wichita State University, Wichita, Kansas.

STUDENT GOVERNMENT

Wichita State University believes that one of its primary tasks is educating for the responsibilities of citizenship in our democratic society. With this in mind, it places an ever increasing emphasis on the role that the Student Government Association plays on the campus.

The S. G. A., under its present constitution, is divided into three organs of student government. The Cabinet, Congress, and Student-Faculty Court carry out the executive, legislative, and judicial functions respectively.

In addition to sponsoring such student activities as Freshman Orientation, Homecoming, Hippodrome, and May Day, the Congress, which is completely student elected, charters and registers all other student organizations subordinate to it. It recommends to the President of the University the names of students to be appointed to University committees and advises the University Administration on the student views about policy.

STUDENT HEALTH AND HOSPITALIZATION

Wichita State University maintains a Student Health Service. The Health Service staff consists of Lew Purinton, M.D., Director; Bruce Meeker, III, M.D.; Floyd Grillot, M.D.; William Nixon, M.D.; Austin Adams, M.D., Psychiatrist; and Wanda Maltby, R.N., Nurse-Counselor. The staff are members of the American College Health Association, an organization which attempts to standardize practices regarding activities in American colleges and universities.

All new and transfer students, or students registering anew after an interruption of their program, working toward a degree and enrolled for nine (9) or more credit hours, are required to submit to the Student Health Service a certificate signed by a licensed physician (M.D.), stating that the student is free from tuberculosis and/or other contagious diseases. The appropriate form will be mailed to all new applicants for admission to the University, or may be obtained from the Student Health Service.

The nurse may be seen at the Student Health Service Office for first aid, illness, or counseling regarding personal health problems. Services of the staff physicians are available by appointment during the scheduled clinic hours as posted in the Student Health Service Office. Polio, tetanus, and flu immunizations are offered to those desiring them. Summaries of medical health records are prepared for students upon request. A terminal physical examination is optional for senior students.

The Wichita State University student body has chosen to participate in the Blue Cross-Blue Shield Hospital Surgical Medical plan. Opportunities to participate in the program are offered at the beginning of each regular semester. Information is available at the Student Health Service Office.

THE CAMPUS ACTIVITIES CENTER

The Campus Activities Center is designed to provide recreational areas, lounging and reading rooms and opportunities for student groups to meet and carry on their programs. Dining facilities are available to the students, faculty, and their friends. The bookstore stocks texts and supplies which meet the students' day-to-day campus needs. The program of activities is planned by the Program Board, a representative body of students, faculty, and alumni.

The Campus Activities Center is the community center of the university, for all the members of the University family—students, faculty, administration, alumni and guests. It is not just a building; it is also an organization and a program.

As a part of the educational program of the university, it serves as a center for training students in social responsibility and for leadership in our democracy.

In all its processes it encourages self-directed activity, giving maximum opportunity for self-realization and for growth in individual social competency and group effectiveness. Its goal is the development of persons as well as intellects. The Center serves as a unifying force in the life of the university, cultivating enduring regard for and loyalty to the university.

RELIGIOUS ACTIVITIES

The University welcomes the participation of a number of campus religious groups offering a variety of activities to students. Their programs are developed through campus organizations and/or centers and directors. These programs include informal discussion groups, counseling, worship, service projects, and attendance at off-campus conferences. The value of these resources is recognized within the University community. The WSU registration packet includes an optional religious preference card which is made available to campus religious advisers.

ORGANIZATIONS

Student organizations may be granted the privilege of (1) the use of names in which the name of the University is embodied or suggested, and (2) the use of the University rooms or grounds for meetings and
of bulletin boards for announcements, only if they have filed their registration forms furnishing the Office of Student Personnel Services with lists of officers and other executive members, statements of purposes, and copies of constitution and by-laws.

SOCIAL ORGANIZATIONS

Five national sororities, four national fraternities, and one local fraternity are maintained by the students of the University: Alpha Chi Omega, Alpha Phi, Delta Delta Delta, Delta Gamma, and Gamma Phi Beta by the women; and Beta Theta Pi, Delta Upsilon, Phi Alpha, Phi Delta Theta, and Sigma Phi Epsilon by the men.

Fraternity and Sorority Awards

Each year there is awarded to the fraternity having the highest scholastic average a silver loving cup and to the sorority having the highest average a silver tea service. The fraternity and sorority so honored are in possession of the awards for one year at the end of which time new awards are made and the trophies go to the new winners.

Independent Students Association

A chapter of the National Independent Students Association (Iota Sigma Alpha) exists on the campus to promote friendship among the student body, as well as to further the educational and social interests of its members.

HONORARY ORGANIZATIONS

**ALPHA KAPPA DELTA**—Sociology  
**DELTA SIGMA THETA**—Forensics  
**GOLD KEY**—Interdepartmental  
**KAPPA DELTA**—Education  
**KAPPA KAPPA PSI**—Bandsmen  
**KAPPA MU PSI**—Radio-7V  
**KAPPA PI**—Art  
**MEN’S HONOR FIVE**—Service, scholarship, leadership (men)  
**MORTAR BOARD**—Service, scholarship, leadership (women)  
**MU PHI EPSILON**—Music (women)  
**NATIONAL COLLEGIATE PLAYERS (Pi Epsilon Delta)**  
**PHI DELTA KAPPA**—Education  
**PHI MU ALPHA SIGMA**—Music  
**PI MU EPSILON**—Mathematics  
**PI SIGMA ALPHA**—Political Science  
**PSI CHI**—Psychology  
**SHOCKER SPURS**—Sophomore Women  
**SIGMA ALPHA ETA**—Speech and Hearing  
**SIGMA DELTA PI**—Spanish  
**SIGMA GAMMA TAU**—Aeronautical Engineering  
**SIGMA PI SIGMA**—Physics  
**SIGMA XI CLUB**—Science  
**TAU BETA PI**—Engineering  
**TAU BETA SIGMA**—Band (women)  
**ZETA PHI ETA**—Speech Arts

OTHER ORGANIZATIONS AND ACTIVITIES

**Alpha Kappa Psi (Business and Commerce)**  
**Alpha Phi Omega (Service)**  
**American Institute of Aeronautics and Astronautics**  
**American Society of Mechanical Engineers**  
**American Society of Tool and Manufacturing Engineers**  
**Anchorettes**  
**Angel Flight**  
**Anthropology Club**  
**Army Blues**  
**Arnold Air Society (Air Cadets)**  
**Associated Women Students (A.W.S.)**  
**Baha’i**  
**Baptist Student Union**  
**Campus Activities Center Program Board**  
**Campus Crusade for Christ**  
**Canterbury Club**  
**Chess Club**  
**Christian Science Club**  
**Debate Society**  
**Deseret**  
**Dialectica (Philosophy)**  
**Engineering Council**  
**Film Society**  
**Flying Club**  
**Geology Club**  
**Graduate Club**  
**Industrial Arts Club**  
**Institute of Electronics and Electrical Engineers**  
**Inter-Fraternity Council**  
**International Students Club**  
**Inter-Varsity Christian Fellowship**  
**Kappa Alpha Psi**  
**Kappa Phi**  
**Lutheran Campus Ministry**  
**Men’s Physical Education Major’s Club**  
**Newman Club**  
**Orchesis (Modern Dance)**  
**Parnassus**  
**Pershing Rifles**  
**Pep Council**  
**Political Science Club**  
**Scabbard and Blade**  
**Shoutin’ Shockers**  
**Sky Diving Club**  
**Student Affiliate Chapter of American Chemical Society**  
**Student Government Association**  
**Student Music Educators National Conference**  
**Student NAACP**  
**Student National Education Association**  
**United Christian Fellowship**  
**Varsity Rifle Team**  
**Women’s Panhellenic Council**  
**Women’s Physical Education Major’s Club**  
**Women’s Recreational Association (W.R.A.)**  
**Young Democrats**  
**Young Republicans**  
**Young Women’s Christian Association (Y.W.C.A.)**

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**Wichita State University**
ASSISTANTSHIPS AND STUDENT EMPLOYMENT

Graduate Assistantships

Graduate assistantship grants are made in several departments upon recommendation of the department concerned and the Dean of the Graduate School. These assistantships carry a stipend of up to $2000. Application should be made to the Dean of the Graduate School.

Undergraduate Employment

The student may apply directly to the department in which he is seeking employment, or he may inquire at the Placement Office for aid in finding employment. In either case, all employment authorizations are subject to approval by the Committee on Scholarships and Student Aid.

Departmental Assistants

Academic assistantships are open to upper division students who have been recommended by their respective departments. Departments may select sophomores with outstanding ability. These assistants grade papers, assist in laboratories, and assume the duties of clerical or technical assistants.

Clerical and Technical Assistants

Clerical assistants must be recommended by the department concerned. Technical assistants must have the Committee’s permission, be recommended by the department head, have upper division standing, and have an overall and major department grade of 2.25.

Library Assistants

Library work is available to both men and women students. Interested students should apply to the Librarian or to the Student-Alumni Employment Office.

Custodial and Food Service Workers

Work is available for a limited number of students in these areas. Interested students should apply to the Office of Buildings and Grounds or to the Office of Director of Food Service.

FINANCIAL AIDS AND AWARDS

Under the provisions of the 1963 Kansas Senate Bill No. 152, a Board of Trustees was appointed by the governor. This Board of Trustees administers the endowment property formerly owned by the University of Wichita in support of the educational undertakings of Wichita State University. It receives and administers gifts, bequests and trusts and manages endowed property and funds as prescribed by the donors and approved by the State Board of Regents. Scholarship funds and awards now under the jurisdiction of the Board of Trustees and administered by them in cooperation with the State Board of Regents are listed below.

AWARDS

University Citizenship Award

The Wichita Branch of the American Association of University Women established in 1927 an annual gift of $25 to the girl of the junior class who has attained the highest efficiency in university citizenship.

Cosmopolitan Achievement Award in Accounting

Established in 1953, An award of $50 is made annually to an upper-division student with a declared major in accounting upon the recommendation of the Department of Accounting.

Thurlow Lieurance Memorial Fund

This award was established in 1964, is given to a senior in the Music Department of the College of Fine Arts in recognition of scholarship, service to the University and community, and outstanding achievement in the development of his talent.

Frank A. Neff Memorial Award

Established in 1961, in memory of Dean Frank A. Neff, this award is made to the outstanding junior in the College of Business Administration and Industry.

Parnassus Service Award

Established in 1954 by the University. This award is given annually to one or more students working on the Parnassus staff upon recommendation of the Student Publications Committee. The total annual stipend paid by the award is $600.

Sunflower Service Award

Established in 1954 by the University. This award is given annually to one or more students working on the Sunflower staff upon recommendation of the Student Publications Committee. The total annual stipend paid by the award is $600.

Larry Ricks Geology Award Fund

Established in 1957, in memory of Larry Ricks. The interest from the investment is used as a cash gift or award made at the end of each academic year to an undergraduate student in Geology who shows great promise and excellence in scholarship.

H. W. Sullivan Award

Established in 1966 in memory of H. W. Sullivan. This award is given annually to the graduating senior who has achieved the highest cumulative grade point index for work completed toward an engineering degree. The award consists of income from the H. W. Sullivan funds.
William H. Swett Prize for Efficiency

William H. Swett, by the terms of his will, established a prize consisting of the income from $5,000. "The yearly income therefrom shall be given at the end of each school year to the graduating student who shall have attained the highest average in his studies and school work during his or her last year in college." The fund became available in 1924.

SCHOLARSHIPS AND LOAN FUNDS

The following scholarships and loan funds are available to students of Wichita State University. All inquiries regarding student aid and all applications for undergraduate scholarships or loans must be addressed to the Committee on Scholarships and Student Aid. Applications for graduate fellowships must be made to the Dean of the Graduate School.

UNDERGRADUATE SCHOLARSHIPS AND FINANCIAL AID

Regents' Recognition Scholarship

An honorary award given to a selected group of students with outstanding high school records. Certain special privileges are extended with this scholarship.

The Wichita Chapter of the National Association of Accountants Accounting Awards

These awards, established in 1962 by the Wichita Chapter of the National Association of Accountants, will be presented annually in the amount of $50 to two or more full-time male students who are juniors majoring in accounting. Criteria for selection consist of high academic achievement and qualities of leadership and character. Announcement of award winners will be made at the October meeting of the Association.

Administrative Management Society

Established in 1956 by the Wichita Chapter of the National Office Management Association. This is an annual scholarship in the amount of $350 for a junior in Business Administration majoring in Management. The bases for selection of the recipient will be scholastic achievement and financial need. The final date for application is February 15.

Advertising Club of Wichita Scholarship

Established in 1962 by the Advertising Club of Wichita, the scholarship is an annual award of $300 or $150 per semester to an advertising major or minor of junior or senior status. Criteria are need, scholastic record, and active participation record in outside advertising activities.

Aeronautical Local 733 International Association of Machinists Scholarship

Four scholarships were established in 1962 by Aeronautical Local 733 of the International Association of Machinists. They will be granted to members of Local 733 or their children in the amount of $200 for the year. The primary criterion for selection will be academic achievement. Each year one grant will be made to a freshman, a sophomore, a junior, and a senior. Final date for application is February 15.

Alpha Tau Sigma Delta Gamma Elizabeth Spicer and Eva C. Hangen Memorial Scholarship Fund

Established by the alumni of Alpha Tau Sigma Sorority. Interest on the fund to be used to award a scholarship to a deserving member of the Delta Gamma Sorority.

The University of Wichita Alumni Scholarships

Established in 1950 by the University of Wichita Alumni Association, these scholarships are open to incoming freshmen and to undergraduate students. They are awarded on the bases of scholarship and need, and provide from $100 to $300 a year. The final date for application is February 15.

Army National Guard—Wichita Station, Army ROTC Scholarship

Established in 1964 by the Wichita Station of the Kansas Army National Guard, this scholarship provides for an annual stipend of $50.00 each for two cadets. One award goes to an MS III cadet. The second award goes to an MS IV cadet. Selection is based on academic achievement and interest in the Army ROTC program. Further information may be obtained from the Professor of Military Science.

Olive Baker-Nease Scholarship

Established in 1954 by Stephen G. Nease as a memorial to his wife. The annual income from the estate, is available for the scholarship stipend. Selection of scholarship winners is based upon need, academic achievement, and personality development. Final date for application is February 15.

Walter H. Beech Squadron Scholarship

Established in 1952 by Mrs. Olive Ann Beech and daughters. This scholarship carries a stipend of $600 ($300 per year for two years). Recipient must be a junior or senior and an active member of the Arnold Air Society. The final date for application is August 15.

The Walter H. Beech Scholarships in Aeronautical Engineering

This scholarship is awarded in two parts. The freshman scholarship will be granted to five freshmen for one year in the amount of $250 each on the basis of their high school records and entrance examinations. The upperclass scholarship is awarded at the end of the freshman year to one of the five freshman scholars who attained the best academic record. This award shall be a three year grant in the amount of $600.
annually. A 3.0 grade average must be maintained to retain the scholarship. Final date for application is February 15.

Biological Science Scholarship

The Sedgwick County Medical Society has established a trust fund to provide scholarships for students preparing for careers in medicine or research relating to medicine. One scholarship in the amount of $250 will be granted each year to an incoming freshman. The grant may be renewed each year for three years if the recipient maintains a 3.0 grade average and remains in the biological science field. Final date for application is February 15.

The Boeing Company Scholarships

The Boeing Company contributes $2,497.50 annually for nine scholarships of $277.50 each, which award substantially covers tuition and fees. The awards are renewable for four years.

Boeing Scholarship recipients must be students who enroll in courses leading to a degree in one of the following fields of study: (a) engineering, with particular emphasis on aeronautical, mechanical, or electrical engineering; (b) mathematics; (c) physics; (d) business administration with particular emphasis on accounting, marketing or production.

In selecting the winner of the scholarship the Committee will consider the applicant’s scholastic record, his interest in and personal qualifications for his chosen field of study, character and leadership qualities, and need for financial assistance in carrying on his educational program.

Applications must be made on the Boeing Scholarship blank in addition to the regular scholarship blank no later than February 15.

Luella Bosworth Scholarship Fund

Established in honor of the class of 1902, income from this fund shall be used for scholarship awards to students majoring in English. Classification as a senior and the highest overall grade average will be considered by the Department of English and College of Liberal Arts in recommending students for this Award. Applications are made through the Department of English to the Student Aid and Scholarship Committee prior to the close of each Spring semester.

Merrill Bosworth Music Scholarship

This scholarship, established in 1964, is administered by the School of Music, and is awarded to a music major whose chief performing medium is flute. Final date for application is February 15.

Wichita Chapter of Certified Public Accountants Scholarships

Established in 1957, by the Wichita Chapter of Certified Public Accountants, these scholarships are awarded annually to students who are full-time senior students in public accounting, have signified their intention of graduating at one of the three ensuing terms, have demonstrated an intellectual capacity of high order, as determined by their overall grade point index, and have demonstrated qualities of leadership and character. The awards may consist of one $300 scholarship, two $150 scholarships, or three $100 scholarships; but, the total must not exceed $600. These are awarded to students at the University who are judged to have the interest and capabilities to become Certified Public Accountants.

The Anna V. Christian Scholarship

Established in 1964 by R. V. Christian and family. Income from the fund shall be used for scholarships to entering freshmen majoring in chemistry. Final date for application is February 15.

City of Wichita Scholarships

The City Commissioners annually award a sum of money from the one and one-half mill levy for scholarship purposes. The University makes a number of grants covering part or all of the fees to students with outstanding academic records. The grants are for one year and are renewable to students maintaining a B or better average. The stipulations of the scholarship are: Applicant must have a good scholarship record from high school and recommendations. Some grants are based on scholarship alone, others on scholarship and need for financial aid. Final date for application is February 15.

Flora Colby Clough Scholarship

Established in 1918, the interest on $500 to be awarded to a young woman in the Fairmount College of Liberal Arts and Sciences, preferably one specializing in English, awarded upon nomination by the English Department.

Jenkin H. Davies Music Scholarship

Established in 1964, this scholarship is awarded annually by the School of Music to Music majors. Final date of application is February 15.

Delta Delta Delta Scholarships

These are annual scholarships of at least $100 per year given to a junior or senior girl at the time it is awarded. The bases upon which selection is made are scholastic achievement and financial need. Applications may be obtained in the Student Aid Office at the beginning of second semester.

Dr. John L. Evans Scholarship

Established in 1959, this award is available to those whom the authorities of the University may deem worthy, whose ability merits the award, and who need financial help to pursue the Pre-Medical course at the
University. The final date for application is February 15.

Foreign Student Scholarship

Wichita State University accepts the recommendation of the Institute of International Education, 800 Second Avenue, New York 17, N. Y. Direct all queries to this address.

The Franklin Scholarship

The O. M. Franklin Serum Company provides one or more scholarships of $250.00 annually to entering freshmen majoring in chemistry. Final date for application is February 15.

Garvey Geology Scholarship Fund

Scholarships are awarded annually to two or three students majoring in Petroleum Geology in the amounts from $200 to $500, depending on the financial need. The basis for selection of the recipients of these awards are academic achievement, interest and promise in the field of petroleum geology, and financial need. The final date for application is February 15.

The Harry Gore Scholarship Fund

Established in 1952, the fund provides that one-half of the income shall be used to make scholarship grants. Each scholarship grant is for $5,000 ($1,250 annually for four years), and is made to an entering freshman student. In determining the recipient of a Gore Scholarship the Committee considers the student's scholastic record in high school, his ability and participation in general school activities, and his character, industry, and ambition. The final date for application is February 15.

Arthur J. Hoare Scholarship in Mathematics

Established in 1957, this fund provides that income shall be used for annual scholarships to students majoring in Mathematics. Students are recommended by the Mathematics Department to the Scholarship and Student Aid Committee for these scholarships. The awards shall not exceed full annual fees and costs of books. Applications are made through the Department of Mathematics prior to the close of each Spring semester.

The Independent Insurance Agents of Wichita, Inc.

Established in 1956. Annual scholarship awarded to a junior or senior who is enrolled in the College of Business Administration or in the College of Liberal Arts with a major in economics. Carries a stipend of $375. The final date for application is February 15.

The John C. and Maude A. James Scholarship

Established in 1963 by Maude A. James in honor of her husband John C. James, the fund provides an income of $500.00 a year to be awarded to an outstanding senior student in the School of Engineering. Recommendations are made by a committee from the School of Engineering to the Scholarship and Student Aid Committee.

Kansas Association of Radio Broadcasters Scholarship

This scholarship in the amount of $250 a year is awarded annually to a student in Radio-TV. Final date of application is February 15.

Kappa Delta Pi, Wichita Alumni Chapter Scholarship

Established in 1957, by the Wichita Alumni Chapter of Kappa Delta Pi. Provides an annual stipend of $100 awarded to an active member of the Campus Chapter of Kappa Delta Pi based on academic achievement, promise as a teacher, and need. Final date for application is February 15.

The John Fitzgerald Kennedy Memorial Scholarship

This fund, established in 1964 as a memorial to President John F. Kennedy, was initiated by Temple Emanuel-El of Wichita and joined in by the Wichita Catholic Diocese, the Wichita Council of Churches, other organizations, and numerous individuals. This scholarship is to be awarded to academically promising Negro students from Wichita high schools who do not qualify for other scholarships on the basis of superior academic record in high school and who could otherwise not afford a university education. The final date for application is February 15.

KFH Scholarship in Radio

A grant of $300 is awarded annually. The bases upon which the selection of the scholarship winner will be made are academic achievement, need, potentiality for a career in Radio, character, and leadership. The final date for application is February 15.

The Henry W. Lawrence Photographic Journalism Scholarship

Established in 1955. Awarded annually to a student with a major or minor in journalism and whose special interest is photography. Stipend $150.

Logopedics Scholarships

The Logopedics Scholarship Fund provides for a limited number of scholarships ranging from $50 to $200 a semester for students planning to major in Logopedics. These scholarships are provided by the Women's Advisory Council of the Institute of Logopedics, Lambda Tau Delta, Sigma Alpha, Chi Sigma, and other interested groups. Applicants are recommended by the Department of Logopedics to the University Scholarship Committee. Further information may be secured by writing to the Scholarship Commit-
tee, Institute of Logopedics, Wichita, Kansas. Final dates for application for the fall semester is February 1 and December 1 for the Spring semester.

Leonora N. McGregor Scholarship Fund

Established in 1964. Income from this fund shall be used for scholarships for students of Wichita State University. Final date for application is February 15.

The Pearl J. Milburn Memorial Scholarship

Established in 1956, the fund provides a four-year scholarship carrying a stipend of $2,000 ($500 annually for four years) awarded to an entering freshman who has graduated from a Wichita public high school with B average or better, a record of high school activities, and need for financial assistance. Recipient must maintain a better than average scholastic record in the University and take two years of English and two years of American history during his college course. Usually awarded once every four years. Final date for application is February 15.

Mortar Board Alumni Scholarship

Established in 1945, a grant of $100 will be awarded to the sophomore girl having the highest scholastic average at the end of her freshman year.

Wichita State University Music Scholarships

Each year a limited number of scholarships are granted to music students planning to major in this field. Evidence of financial need, musical aptitude and overall high school grade average of B or higher constitutes the basis for recommendation for Music Scholarship grants to the University Scholarship Committee. Interested students should contact the Dean of the School of Music, Wichita State University, Wichita, Kansas, for application blanks and detailed information.

Dr. Henry Onsgard Scholarship

Established in 1958 by former students and friends of Dr. Onsgard. The interest from the investment will be used as a stipend for one or more scholarships awarded annually to an upper-division student majoring in history. Bases for selection will be academic achievement, activities record, personal achievement, and financial need. Final date for application is February 15.

Payne Memorial Business Education Scholarship

Established in 1959 in honor of Mr. and Mrs. B. C. Payne. The scholarship is available to business education students. The bases for selection of the winner will be academic achievement and financial need. The stipend is $120. The final date for application is February 15.

The Pansy Pelzel Award of Kappa Kappa Iota Sorority

This grant of $50 is awarded to a senior woman who is planning to teach. The bases upon which selection of the scholarship winner will be made are academic achievement and financial need. The final date for application is November 15.

The Pilot Club of Wichita Scholarship

Established in 1958, this scholarship is available to an incoming freshman or a student enrolled in the University. An annual scholarship of $200, it is awarded to a girl who meets the following qualifications: Academic achievement, need, activities record, and personality development. Last date for application is February 15.

Pi Mu Epsilon Mathematics Scholarship

Established in 1950 by the University of Wichita (Kansas Gamma) chapter of Pi Mu Epsilon, honorary mathematics fraternity, consists of the interest on a scholarship fund. It is awarded to an upper-division student with a declared major in mathematics upon the recommendation of the Department of Mathematics. The award will be made upon the recipient's enrolling as a mathematics major in the following semester.

The Theodore Presser Foundation Music Scholarship

The Presser Foundation offers scholarships to one or more music majors. The awards are granted each spring by the Committee on Scholarships and Student Aid upon the recommendation of the Music Department faculty. The award is granted to a student in need of financial aid and preference is given to those who expect to become music teachers.

The Wichita Purchasing Agents Association Scholarship

Established in 1964, the scholarship of $400 will be awarded annually to a junior in the College of Business Administration with an emphasis in the Department of Administration or Economics. This scholarship is renewable for the student's senior year if he is eligible. Final date for application is February 15.

Ritchie Brothers Construction Company Scholarships

The Ritchie Brothers Construction Company will annually award two scholarships, one to a Negro Male and one to a son or daughter of an employee. Both carry stipends of up to $300 for the year. Bases for selection will be scholarship, need and character. Final date for application is February 15.
The Minisa Chapter (N.S.A.I.) Secretarial Scholarship

Established in 1958 by the Minisa Chapter of the N.S.A.I. an annual award of $300 is granted to a girl who has graduated from a high school in Sedgwick County and who has indicated an intention to enroll in the College of Business Administration with an emphasis in secretarial training. Selection of the winner will be made on character, need for financial assistance, personality, and scholastic record in high school. Final date for application is February 15.

The Sorosis Alumnae Award

The interest earned by the Sorosis Alumnae Fund shall be awarded annually to a member of Delta Delta Delta Sorority who has completed at least five semesters of work, with an overall average of 3.0, and who has contributed in some outstanding manner to Wichita State University and the Delta Delta Delta Sorority.

F. C. Sauer Zoology Scholarship

Established in 1937 by Mary E. Sauer, the interest on $1000 to be awarded annually to a deserving student of high scholastic standing above the freshman year, preferably in zoology, upon the recommendation of the Biology Department.

Wichita Community Theatre Scholarship

Established in 1962, a $250 scholarship will be awarded annually to a high school graduate of the Wichita area. High scholastic standing and a desire to major in speech are requisites for application. Final date for application is February 15.

Dr. Walter A. Ver Wiebe Scholarship in Geology

Established in 1954 by former students and friends of Professor Walter A. Ver Wiebe. This scholarship bears the stipend of from $1600 to $3000 for four years and is awarded annually (from $400 to $500 per year), and may be renewed provided the student is academically qualified. The applicant must be a graduate from high school (or the equivalent) with a high scholastic record, sound character, leadership qualities, and have a primary interest in Geology. The applicant must have recommendations and be available for interview. Recommendations are submitted to the University Scholarship Committee. The final date for application is February 15.

The Molly Warren Wilcox Journalism Scholarship

Established in 1955, an award of $50 annually is granted to a major in journalism. The final date for application is February 15.

The Grace Wilkie Scholarship

The scholarship is the interest from an invested principal for which women students are eligible; however, preference is given to Grace Wilkie Hall residents.

Women's Aeronautical Association of Kansas Aeronautical Engineering Scholarship

The scholarship is to be awarded to a junior or senior student enrolled in aeronautical engineering and carries a stipend of $400 annually. A grade average of 2.50 or better is required. The final date for application is February 15.

The Women's Aeronautical Association of Kansas Flying Award

Established in 1953 by the Women's Aeronautical Association of Kansas. This scholarship carries a stipend of $600 ($150 at the beginning of each of four semesters). Award is made to a junior or senior student with a 2.5 academic record who has been accepted by the Air ROTC for advanced contract and who is recommended for strong leadership qualities by the Commanding Officer of the Air ROTC unit of the University. Final date for application is August 15.

Women's Symphony Society Scholarship

Established by the Women's Symphony Society, the scholarship is open to music majors with a stipend of from $100 to $200 per year. Applications may be obtained through the Dean of the School of Music.

The Alice Campbell Wrigley Memorial Scholarship in Drama

Awarded to a student with high academic achievement, interest and promise in the field of theatre, and financial need. This scholarship is in the amount of $100 per year. The final date for application is February 15.

GRADUATE FELLOWSHIPS AND SCHOLARSHIPS

James H. Hibbard Memorial Scholarship

Established in 1952 by the Wichita Foundation of Medical Research. Provides awards to graduate students in Chemistry who are interested in the study of medicine or in research in some phase of medicine.

Kiwanis Scholarship in Public Administration

Established in 1964 a $1500 scholarship is being provided by the Downtown Kiwanis Club for graduate study leading to a Masters degree in Public Administration. Final date for application is February 15.

COMBINED STUDENT LOAN FUND

The special funds described below provide a Combined Student Loan Fund for students with satisfactory scholarship records. Total loans made to one student may not exceed $300 and satisfactory endorsers are required for all loans. All loans made to students bear interest at the rate of 5% and a $3 service charge is made on each loan. The time and manner of repayment is to be agreed upon by the student and the Uni
versity at the time the loan is made. Application for these loans is made in the Student Aid Office.

Barclay Student Loan Fund

Established in 1931, $100 given by Mr. and Mrs. W. Houston Barclay.

Dr. L. A. Donnell Loan Fund

Established in 1959 in memory of Dr. L. A. Donnell. The fund will be incorporated into the Combined Student Loan Fund with money being loaned to deserving and needy students who have satisfactory scholarships records.

Edwards Loan Fund

Established in 1910 by R. E. Edwards of Kinsley, available for aiding deserving students to secure an education in Fairmount College, now incorporated in Wichita State University. The article of gift specifies that recipients shall be encouraged to work and to add to the amount such sums as they can, in order that others may receive similar aid in obtaining an education.

Goldsmith Student Loan Fund

Established in 1943 by a gift of $2,140 by Dr. and Mrs. W. M. Goldsmith, available to juniors and seniors who have completed one year of residence work at the University of Wichita. The rules governing the fund provide that at least fifty percent of the fund shall be reserved for non-resident students.

Inter-Racial Good Will Fund

Established in 1926 for the benefit of Negro students enrolled in the University of Wichita, to be administered jointly by the University and a Commission of Inter-Racial Good Will.

Laura Piper Hoop Memorial Fund

Established in 1924 by a gift of $400 made by Major Oscar W. Hoop of the Fairmount class of 1920, in memory of his mother, Laura Piper Hoop. This is to be used as a perpetual loan fund to help worthy students and to be administered according to the discretion of the President of the University.

Fred C. Speh Student Loan Fund

Established in 1931 by Fredric C. Speh in memory of his son, Fred C. Speh, available to juniors and seniors and administered by the President of the University together with the committee. The maximum amount any one student may borrow is $200. Repayment time is governed by the student’s financial circumstances and requires life insurance in amount equal to the sum borrowed.

Student Council Loan Fund

Established in 1932 by the Student Council, a sum of $150 as a loan fund for needy students, preferably needing financial aid to defray graduation expenses.

Dr. T. Walker Weaver Memorial Loan Fund

Established in 1962 by gifts from friends in the memory of Dr. T. Walker Weaver, former Board of Regents member. This fund is to be used for loans to worthy and needy students.

Women’s Aeronautical Association Loan Fund

Established in 1940 by the Women’s Aeronautical Association of Wichita, a sum of $100 to be loaned to worthy students in the aeronautical curricula.

Women’s Bible Class, First Presbyterian Church, Loan Fund

Established to provide assistance to worthy students.

LOAN FUNDS FOR SPECIAL PURPOSES

Alumni Loan Fund

Wichita University Alumni Association Loan Fund, established in 1956 by the Alumni Association of the University of Wichita. All money given by the Alumni Association for this fund is put in the regular loan fund and administered by the Committee on Scholarships and Student Aid.

Boeing Emergency Loan Fund

Established by Boeing Airplane Company. This fund was made available to Wichita State University to make short duration emergency loans to students having financial need who are citizens of the United States, and are making satisfactory academic progress. Any major field of study leading to a bachelor’s degree will qualify; some preference is given to engineering and science students.

Christian Conference Loan Fund

Established in 1923 by a friend of Fairmount College, a fund of $800 to enable students more easily to attend Y.M.C.A., Y.W.C.A., and other Christian conferences. Loans may not exceed $75 each and must be repaid within three months after the date of leaving college, interest at four per cent, payable annually.

C.U.W. Scholarship and Loan Fund

Established in 1952 by the Council of University Women and consists of $50 to be used only for loans to women and is available to new students on the campus.

Delta Upsilon Loan Fund

Established in 1956 by the Epsilon Chapter of Delta Epsilon, Science Fraternity to be used for making loans to majors in the following departments: Chemistry, engineering, logopedics, geology, mathematics, physics, psychology, and zoology.
Kansas Engineering Society Loan Fund

Established in 1956 by the Kansas Engineering Society, a fund of $400 to be loaned to worthy students enrolled in accredited engineering curricula. Loans bear service charge but bear interest only after recipient has left the University.

Garvey Loan Fund

Established in 1958 by James S. Garvey, a fund to be loaned to worthy students who meet character, citizenship, and need qualifications.

Grand Army of the Republic Living Memorial Loan Fund for Logopedics Students

Established in 1952, by the Daughters of the Union Veterans of the Civil War, provides a fund of $2500 to be used for loans to students who are direct descendants of a Union Veteran of the Civil War and majoring in Logopedics. Maximum loan is to be $300 per student to be repaid after the date of leaving college in payments acceptable to both the student and the University. Interest at 1% payable annually.

Inter Fraternity Council

Established in 1965 by the Inter Fraternity Council. The fund is used for National Defense Student Loan matching funds.

John Liggett Loan Fund

Established in 1964 by John Liggett. This fund is used for National Defense Student Loan matching funds.

Pete Lightner Memorial Loan Fund

Established in 1962, in memory of Pete Lightner. This fund is to be used for loans to worthy and needy music students or athletes.

Eugene McFarland Loan Fund

Established in 1956 in memory of Dr. McFarland to be used for loans to students majoring in art.

Reno B. Myers Memorial Loan Fund for Music Students

Established in 1962 by gifts from friends in the memory of Reno B. Myers. This fund is to be used for loans to worthy and needy students in music.

The Edda H. Lochead Loan Fund

Established in 1966, through the estate of Mrs. Edda H. Lochead. The loans in any given year shall not exceed five in number and shall be made to students of junior or senior standing in the Fairmount College of Liberal Arts. The loan to any one student can not exceed the sum of $250.00 per year.

National Defense Student Loan Fund

This fund established under Title II of Public Law 85-864 is to assure that no student of ability will be denied an opportunity for higher education because of financial need.

Two academic criteria must be met by the student to establish eligibility for these loans:

1. He must be a full-time student on either the undergraduate or graduate level, or be accepted for admission as a full-time student.
2. He must be in good standing and capable of maintaining such standing.

The maximum amount available to an individual borrower in one fiscal year is $1000 and the total amount during the duration of the program is limited to $5000.

Interest on these loans does not commence until one year from the date the borrower ceases to be a full-time student at an institution of higher education. Simple interest of 3% per year on the unpaid balance is charged.

The principal amount plus interest thereon shall be repaid in ten equal installments beginning one year from the time the borrower ceases to be a full-time student. Full or partial payment at any time prior to repayment schedule shall be permitted.

Any borrower who serves as a full-time teacher in a public or secondary or elementary school shall be eligible for cancellation of 10% of the amount of the loan plus interest thereon, which is unpaid on the first day of such service, for each academic year of such service. A maximum of 50% may be cancelled in this manner. In the event of the borrower's total and permanent disability or death, the unpaid indebtedness shall be cancelled.

Douglas Stucky Memorial Loan Fund

Established in 1964, in memory of Douglas Stucky. This fund is used for National Defense Student Loan matching funds.

Newton Teachers Association Loan Fund

Established in 1966 for matching funds for National Defense Loans at Wichita State University.

Minnie Ferguson Owens Loan Fund

Established in 1940 by Dorothy Owens Meyers, a fund of $200 for payment of fees, available to senior students of voice.

Charles E. Parr Loan Fund

Established in 1959 through the estate of Charles E. Parr, a fund to be loaned to worthy students desiring a higher education.

Rollins Memorial Fund

Established in 1927 in honor of Walter Huntington Rollins, third President of Fairmount College, by his classmates of Dartmouth College, Class of 1894, and
certain Wichita friends, the sum of $1000 in perpetual
trust, the income from which is to form an accumula-
tive revolving fund to be loaned from year to year to
a worthy student or students in the Fairmount College
of Liberal Arts and Sciences.

Kansas Sales Executive Club Loan Fund

Established in 1957, $1000 available for loans to
juniors and seniors with a major in marketing and who
have an interest in selling.

Senior Class of 1961 Loan Fund

Established by the Class of 1961. The funds pro-
vided will be loaned to worthy and deserving graduat-
ing seniors. Repayment may be made after graduation.

George W. Shepherd Memorial Loan Fund

Established in 1962, the funds are to be loaned with
no interest charge to students seeking careers as police
officers.

United Student Aid Funds

Wichita State University is a participant in a pro-
gram of loans that may be made through a student’s
home town bank. These loans may be made to stu-
dents who have completed their freshman year. A
student may borrow up to $1000 per year—or a com-
bined total of $8000 for an undergraduate and/or grad-
uate education. Interest on these loans is limited to
6% simple interest. Repayments begin after finishing
undergraduate or graduate education. Payments may
be spread over 36 monthly installments. Monthly re-
payments begin within 30 days if withdrawal is made
before graduation. The University must approve the
loan and advise the bank. Instructions and applica-
tions may be secured from the University Office of
Student Aid or the student’s home town bank.

George D. Wilner Loan Fund

Established in honor of George D. Wilner, Pro-
fessor Emeritus of Speech and Dramatic Art. This
fund is used for National Defense Student Loan
matching funds.

Wichita State University Men’s Faculty Club

Established in 1965 by the Men’s Faculty Club of
this University. The fund is used for National De-
fense Student Loan matching funds.

FOUNDATIONS FOR RELIGIOUS
EDUCATION

The Ransom Foundation

Established by Katherine S. Ransom as a memorial
for her husband by a gift of $75,000. It is adminis-
tered as a trust fund under the name of “The Ransom
Fund for Religious Education.”

The Butler Foundation

Established by Emily Butler. It is a trust fund of
$10,000 to be used for the purpose of assisting in the
financing of the “Department of Religious Education
of the University of Wichita.”

At the specific request of the trustees of Fairmount
College a small portion of the income of the Joint
Ransom-Butler Foundation is now set aside annually
for use in defraying the cost of outstanding lectures
in religion, science, and literature.

The Louisa J. Byington Foundation

Established in 1930 and consists of the sum of $1,000
to be used in the Department of Religious Education,
MORRISON HALL contains offices for the President, Student Services, University College and other general administrative agencies.
UNIVERSITY COLLEGE

J. R. BERG, Ph.D., Dean

All freshmen admitted to Wichita State University are enrolled in University College. Primarily designed to aid the freshman through his first year of higher education, University College provides for the transition from high school into any of the baccalaureate degree colleges, usually at the end of the freshman year. In order to properly acquaint the student with university life, the freshman year is characterized by emphasis upon the use of test results, an intensive faculty advising and orientation program, enrollment in general requirement courses, and the aid of several auxiliary services. Removal of high school deficiencies and fulfilling prerequisites of the baccalaureate colleges should also be accomplished during the first year in University College.

In addition to the Freshman Division, University College also administers: The Division of Continuing Education, and certain remedial, technical and two-year programs.

REQUIREMENTS FOR ADMISSION

FRESHMAN

(1) Make application to the Admissions Office, Wichita State University, listing any college or university since graduation from high school. A high school transcript must also be sent to this office.

(2) Take the American College Test and HAVE RESULTS SENT TO WICHITA STATE UNIVERSITY. Registration blanks and information are available through high school counselors and the Testing Office, Wichita State University. (See EXCEPTION for transfer students below.)

(3) Take the Cooperative Reading Test given by Wichita State University. Contact our Testing Office for arrangements. (See EXCEPTION for transfer students below.)

(4) Present a certificate signed by a licensed physician (M.D.) stating that you are free from tuberculosis and/or other contagious diseases.

TRANSFER STUDENTS

(1) EXCEPTION: Any student transferring 24 or more acceptable hours from another college or university is not required to take the two entrance tests listed above.

(2) All transfer students admitted on probation are enrolled in University College.

(3) Transfer students with 24 or more acceptable hours, and not on probation, are eligible to apply for admission to a baccalaureate degree college.

HIGH-SCHOOL PREPARATION

Adequate high school preparation is a prerequisite for admission to introductory college courses and degree-granting colleges. Hence, it is necessary that high school courses be chosen which will provide the proper background for college work. The following requirements are considered a minimum for successful college work and are required if a degree in Liberal Arts and Sciences is desired.

English—3 units required, 4 recommended.
Foreign Language *—2 units in one language.
History and Social Science—2 units required.
Mathematics **—1½ units algebra, 1 unit geometry. Science—2 units, exclusive of general science.

PROBATION AND SUSPENSION STANDARDS

(1) A student will be placed on probation for the next term in which he enrolls if his cumulative grade point index falls below the following levels: (a) 1.500 if the student has earned 1 to 63 credit hours; (b) 1.700 if the student has earned 64 or more credit hours.

(2) A student on probation shall be suspended if his cumulative grade point index falls to meet the required minimum standards and if his grade point index for the term during which he is on probation falls below 2.000.

(3) See the heading Prohibition and Suspension Standards in the general section of this catalog for regulations concerning:

(a) removal of probation
(b) continuing on probation
(c) maximum allowable load while on probation
(d) readmission after suspension

Students are expected to maintain a C average in all work for which they are registered for credit during any semester. Failure to maintain this standard implies the advisability of limiting the student’s program.

No student shall be allowed credit toward graduation for D grade work in excess of one-quarter of total hours.

At the end of the first eight weeks in each semester, reports of unsatisfactory grades are sent to the student.

* With the permission of the appropriate department a student with high school credit in foreign language may enroll for college credit at a level one semester below that for which his high school credit makes him eligible. Such permission is granted on an individual basis to students whose language experience has been interrupted or for whom special circumstances prevail. Without this permission no credit will be given for work done at a level which duplicates high school foreign language study.

** In addition, the College of Engineering requires Mathematics through college algebra, trigonometry, and analytic geometry, or their equivalent.
ORIENTATION AND ADVISING PROGRAM

A selected group of experienced faculty members, familiar with the problems of freshmen, meet with them individually and in small groups through the Orientation and Advising Program. Each adviser is provided with an evaluation of his advisee's high school work, his abilities as indicated by the entrance examinations, and autobiographical information. Through frequent appointments with his adviser during the year, the freshman is assisted in choosing courses best suited to his individual abilities and educational goals; through attendance at Orientation meetings with the rest of the freshman class, he learns to understand University regulations and to assume the responsibilities of a University student.

SCHEDULE

Minimum requirements for the Bachelor's degree are 124 semester hours and 248 credit or grade points. To graduate in four years, a student should take 15 to 16 hours each semester. In most cases, a typical semester load of 15 hours is equivalent to 15 class meetings per week, except that laboratory hours are usually double the regular class hours.

If the student is undecided as to his area of emphasis, he may well enroll in any of the courses selected from the 45 hours of required courses listed under the "University Requirements for Graduation," found on page 22, or other courses approved by the adviser and Dean. If, however, the student is firm in his conviction as to a major, or field of professional interest, the student's adviser will suggest courses from both areas, i.e., those from the "University Requirements" mentioned above, as well as introductory courses in areas of major or professional goals. A sample first semester schedule is shown below; second semester sequences in most areas follow numerically upon the first semester. For example, in most cases, courses numbered 101, 111, 141, 193, etc., below are followed in the second semester by courses numbered respectively 102, 112, 142, 194, etc.

SAMPLE FIRST SEMESTER SCHEDULE

The student must enroll in two or more large auditorium classes. In any given semester there is wide choice, for example:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych. 111, General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Sci. 101, Physical Science</td>
<td>5</td>
</tr>
<tr>
<td>Hist. 101, History of Civilization</td>
<td>4</td>
</tr>
<tr>
<td>Hum. 102, Man and the Arts</td>
<td>4</td>
</tr>
<tr>
<td>Phil. 121, General Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Hist. 131, Amer. Hist.</td>
<td>4</td>
</tr>
</tbody>
</table>

6-9+

* Science, Engineering and Business majors substitute laboratory science and/or Mathematics.

Additional and/or alternative general courses (selected upon the advice of advisor):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Activities: Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>R.O.T.C., or Marching Band</td>
<td>1</td>
</tr>
<tr>
<td>Psych. 60, Remedial Reading</td>
<td>0</td>
</tr>
<tr>
<td>Engl. 80, Writing Improvement Techniques</td>
<td>0</td>
</tr>
</tbody>
</table>

(For additional general courses, see page 40).

Recommended Major and Professional Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts and Sciences</td>
<td></td>
</tr>
<tr>
<td>Laboratory science</td>
<td>3-5</td>
</tr>
<tr>
<td>Mathematics (for which eligible)</td>
<td>5</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>5</td>
</tr>
<tr>
<td>Other liberal arts, English 111, or Speech 111</td>
<td>3-2</td>
</tr>
<tr>
<td>Business Administration</td>
<td></td>
</tr>
<tr>
<td>Math. 121, Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>(Secretarial Science, see department head.)</td>
<td></td>
</tr>
<tr>
<td>Teacher Education</td>
<td></td>
</tr>
<tr>
<td>Psych. 111, General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Eng. 111, College English</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
</tr>
<tr>
<td>Phys. Ed. 115, Pers. &amp; Community Health</td>
<td>3</td>
</tr>
<tr>
<td>Phys. Ed. 118, Fundamentals, Major Sports</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Education</td>
<td></td>
</tr>
<tr>
<td>Ind. Ed. 111, Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Ind. Ed. 120, General Drafting</td>
<td>3</td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
</tr>
<tr>
<td>Math. (for which eligible)</td>
<td>3-5</td>
</tr>
<tr>
<td>Engr. Dwg. 109, Graphics</td>
<td>1</td>
</tr>
<tr>
<td>Fine Arts—Art</td>
<td></td>
</tr>
<tr>
<td>Art 101, 102, Hist. of World Art</td>
<td>3-3</td>
</tr>
<tr>
<td>Art 141, Basic Art I or</td>
<td>3</td>
</tr>
<tr>
<td>Art 142, Basic Art II</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts—Music</td>
<td></td>
</tr>
<tr>
<td>Mus. 111, Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>Mus. 113, Music Literature</td>
<td>2</td>
</tr>
<tr>
<td>Mus. 127, Music Theory (prerequisite, Piano)</td>
<td>3</td>
</tr>
<tr>
<td>Applied Music</td>
<td>2</td>
</tr>
</tbody>
</table>

STUDENT PERSONNEL SERVICES

While this office serves all students, it is especially important to freshmen in these areas:

- Housing
- Scholarships and Loans
- Part-time Employment
- Student Government and Associations
- Social Organizations
- Health, Hospitalization, and Insurance
- Personal and Vocational Counseling
- Bookstore
- Food Service
- Recreation Areas
- Foreign Student Advising
- University Forum

(Detailed information precedes the section on University College in this catalog.)

PREPARATION FOR DEGREE-GRANTING COLLEGES

All credits accumulated in University College apply toward a degree, if acceptable to the degree-granting college of the student's choice.

General

After a freshman has 24 hours of credit and the grade average required by the degree college of his choice, he is eligible for that college.

Specific

In addition, some of the colleges have specific requirements. A freshman must consider these carefully with his adviser when selecting courses during
his first year. (Descriptions of degree colleges follow the University College section in this catalog.)

Students failing to complete requirements for acceptance in the baccalaureate college by the time they have accumulated 72 credit hours will be withdrawn from the University. Only the Dean of University College is involved in such action. This ruling also applies to the Division of Continuing Education.

Procedure

(1) During the semester in which he will complete 24 hours, the freshman is to consult his adviser concerning his eligibility for a degree college.

(2) After consulting his adviser, and during pre-registration for the next semester, he is responsible for reporting first to the University College Dean’s Office to request transfer to his chosen degree college, then to that college’s Dean’s Office for interview.

(3) Transfer will be made IF THE STUDENT IS ELIGIBLE after his grades for the semester are recorded and his overall index has been calculated; and if he is accepted by the degree college of his choice.

(4) NO TRANSFER WILL BE MADE UNLESS THE STUDENT FOLLOWS THE ABOVE INSTRUCTIONS.

DIVISION OF CONTINUING EDUCATION

The Division of Continuing Education, an administrative unit of University College, was established to meet the educational needs of those citizens in our community who are not regularly enrolled students in another college of the University, through academic work of a cultural, vocational or semi-professional nature.

The functions of this program, which is directed to the adults of our community are:

1. To provide continuing education in a variety of fields for those who wish to study for their own personal enrichment.

2. To cooperate with business and industry in providing for groups of employees specialized courses, with or without credit.

3. To sponsor lectures, conferences and institutes for the benefit of students and the general public.

4. To afford, through cooperation with degree-granting colleges, courses during evening hours leading to a degree in one of the colleges of the University.

5. To maintain administrative facilities for students who have matriculated for special programs or for an unspecified degree, and who are not enrolled in another college of the University.

Transfer of Credit to a Degree-Granting College

Students who accumulate credits in the Division of Continuing Education and who subsequently wish to work toward a degree in one of the other colleges must transfer to the appropriate college and meet all of its degree requirements.

Residence and Extension Credit

All credit courses offered within the City of Wichita carry residence credit; credit courses offered at locations outside the city may carry extension credit. Correspondence work is offered by Wichita State University through the University of Kansas.

Standards and Requirements

Students who do not meet the requirements for admission to credit courses may be admitted to such courses as audit students. Such persons are enrolled as special students, pay the same fees and receive the same lecture and classroom privileges as credit students. They are not required to take announced examinations.

Bulletin

Prior to each semester a bulletin is prepared by the Division of Continuing Education announcing registration dates, courses offered, schedule of classes, and other pertinent information. The bulletin is available upon request.

SPECIAL PROGRAMS OF STUDY

University College provides courses which are basic to certain technical and professional fields. In some of these programs a two-year degree, the Associate of Applied Science, is offered to those completing the program by 1967. After this date a two year certificate will be awarded.

Police Science

Courses in police science are designed to meet the growing demand for trained personnel in the field of law enforcement. The program has three specific objectives: (1) effective law enforcement, (2) specialized techniques in combating crime, and (3) general basic training for police executives. While Wichita police officers will continue to have priority for enrollment in this program, other University students may be permitted to enroll provided: (1) they obtain clearance from the Wichita Police Department; and (2) they are in good academic standing. Students desirous of earning a four-year degree in the College of Liberal Arts and Sciences, with a 21 semester-hour minor in Police Science, may transfer from University College upon completion of the two-year program.

The prescribed curriculum follows:

<table>
<thead>
<tr>
<th>Core Curriculum</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 111</td>
<td>3</td>
</tr>
<tr>
<td>Speech 111</td>
<td>2</td>
</tr>
<tr>
<td>Science</td>
<td>5</td>
</tr>
<tr>
<td>Humanities</td>
<td>6-8</td>
</tr>
<tr>
<td>Psychology 111</td>
<td>3</td>
</tr>
<tr>
<td>Sociology 111</td>
<td>3</td>
</tr>
<tr>
<td><strong>Remainder of the Program</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>Police Science</td>
<td></td>
</tr>
<tr>
<td>Political Science 100 or 121; 441</td>
<td></td>
</tr>
</tbody>
</table>

One course from each of the following groups:
- Psychology 246 (3), 275 (3), 441 (3)
- Sociology 234 (3), 339 (2), 340 (2), 341 (2)

Electives to complete a total of 64 hours for the degree.
The University provides additional programs, as described below:

(1) In cooperation with Wesley School of Nursing, student nurses pursue a prescribed course of study of 25 semester hours including the following:

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 103, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Biol. 223, Human Biology</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECOND SEMESTER</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol. 120, Introduction to Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>Biol. 130, Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>Psych. 111, General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMER TERM</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc. 111, Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Eng. 111, College English</td>
<td>3</td>
</tr>
</tbody>
</table>

Such college credit, augmented by one year of concurrent study at Wesley School of Nursing and followed by two additional academic years of clinical study at the school of nursing will qualify a student to apply for a diploma from the school of nursing, and will provide a foundation for completion of the work necessary to comply with the degree requirements at the University, by which the Bachelor of Arts Degree may be conferred.

(2) In cooperation with the University of Kansas, two years of prescribed courses can be taken at Wichita State University toward the degree of Bachelor of Science in Nursing granted by the University of Kansas. Students with the R.N. diploma may also proceed in the General Nursing Program. The Dean's Office will provide information relative to specific requirements.

UNIVERSITY COLLEGE COURSES

COMMUNICATIONS

111. College English. (3). Planning, writing, and criticizing compositions. Drills in standard English, literary models, classroom discussions, and conferences.

HUMANITIES

102. Man and the Arts. (4). Aesthetic expression involving an analysis of appreciation in three major areas of creativity: literature, music, and the visual arts. Students will be expected to attend occasional concerts and operas, art exhibitions, and films, most of which will be scheduled at optional times.

299. International Seminar. (4). An interdisciplinary travel seminar: a study of European culture which includes observation of art and architecture in principal European cities, lectures and discussions of European political, social and economic problems given by foreign nationals; and conducted visits to various historic places of interest. Seminar under direction of a member of the faculty.

SCIENCE

Neither of these courses satisfies the laboratory science requirement for graduation:

101. Physical Science. (5). SR; D. Man in the physical world; offering some basic concepts in the physical sciences.

102. Biological Science. (5). SR; D. Man in the living world. An introduction to the basic concepts of the biological sciences, with emphasis upon man himself.

REMEDIAL SERVICES

Psych. 60. Reading Improvement Techniques (0). Designed for those students who seek to improve reading skills. Reading and study habits are diagnosed and practice toward improvement is provided. Prerequisite: approval of instructor.

Engl. 70. English for Foreign Students (0). SR; IC. Designed to determine the students' facility with the English language. All foreign students are required to enroll and participate until approval of the instructor is obtained.

Engl. 80. Writing Improvement Techniques (0) 3R.

Math 50. Elementary Algebra. (0). 3R. For students without high school credit in algebra. May be used in meeting departmental prerequisites in place of one unit of high school algebra.

Math 60. Plane Geometry. (0). 3R. For student without high school credit in plane geometry. May be used in meeting departmental prerequisites in place of one unit of high school algebra. Prerequisite: one unit of high school algebra or concurrent enrollment in Math 50.

Math 70. Intermediate Algebra. (0). 2R. A continuation of the study of elementary algebra. May be used in meeting departmental prerequisites in place of the third half unit of high school algebra. Prerequisite: one unit of high school algebra.

POLICE SCIENCE

The courses in police science are given by officers of the Wichita Police Department, the Legal Department of the City of Wichita, and the University faculty.

Minor. The minor consists of 21 hours in Police Science.

Lower Division Courses *

106. Traffic Control. (3). Teaches the three phases of traffic control: engineering, education, and enforcement. Problems of traffic direction and regulation with special emphasis on safety.


123. Contact and Interview Techniques. (3). A presentation of useful and practical techniques for the police officer to employ in daily contacts with all people to enable him to gain the most truthful information pertaining to the successful completion of his job. Starts with the new officer casually talking to citizens he meets in his daily routine and continues through all phases of interrogation up to and including the detective questioning suspects and the use of the Polygraph (lie detector).

124. Personal Identification. (3). Methods useful in the search for persons wanted, using general physical description, detailed characteristics of various parts of the human body, including fingerprints, their comparison and classification, as well as the use of habits, peculiarities, and habits of the individual.

221. Criminal Law. (3). Analysis and interpretation of criminal law, procedure and evidence, offenses and the elements of offenses; the laws of arrest, search, and seizure; power of law enforcement officers, development, admissibility, and presentation of evidence; testimony, demeanor, and procedure.


244. Introduction to Scientific Crime Detection. (3). Scientific aids as utilized by law enforcement agencies in the investigation of crimes. This includes their application in the field as well as the laboratory and their presentation in court.

245. Investigative Photography. (3). Photography as applied in law enforcement, both in the laboratory and the field. This includes the use of specialized equipment and diagramming the crime scene.

* Prerequisite for all courses: Approval of Chief of Police, City of Wichita, through Dean, University College.
Regardless of the area of his ultimate specialization, man is, before all else, a member of civilization. Ours is a complex civilization, one which requires an ever-increasing degree of sophisticated understanding. To study the liberal arts and sciences means, in essence, to study the range and scope of man’s knowledge about himself and about his universe.

Even though one ultimately specializes in advanced professional fields of study, he is always a member of his society. To understand it—its heritage, its traditions, its environment, its ways of doing things, or its problems—requires a liberal education which is conducive to creative citizenship. The ability to interrelate the world’s many phenomena, to cherish beauty, to communicate interestingly and intelligently—these and related abilities are enhanced by liberal education in the arts and sciences. In a very real sense, a liberal education is a “liberating” experience, for through its processes and methods, one discovers the key for opening the doors to exciting new discoveries throughout his life—be he freed from the limits of his past and invigorated by the potential of his future. Indeed, the professions themselves are increasingly aware of the value of basing specialized competence on general intellectual competence.

While vocational preparation as such is not the prime concern of the Fairmount College of Liberal Arts and Sciences, students frequently are interested in preparing themselves as undergraduates for further study, at the graduate level, in the programs and departments of the College. Many aim at a teaching or research career in one of the several subject matter fields, or perhaps at a position in industry or business. Others are interested in using undergraduate liberal arts and sciences as a springboard for specialized preparation in such fields as medicine or medical technology, nursing, pharmacy, law, dentistry, theology, public service, social work, and many others.

And, of course, the liberal arts and sciences are recommended for the student who does not particularly aim at a specific career objective, but who seeks merely the thrill of discovery and of new ideas.

REQUIREMENTS

ADMISSION

Beginning September 1, 1964, candidates for admission to Fairmount College (including those who entered the University as freshmen in September 1963) must meet the following requirements:

1. Successful completion of 24 semester hours.
2. A minimum grade point index of 1.700.
3. Completion of either English 111, 211, or 225 with a grade of C or better.

In addition, as of September 1, 1964, the following requirements are in effect:

**Humanities:** The student must have completed satisfactorily any three semester hours from Group III of the University core curriculum (see page 23), or the equivalent.

**Mathematics:** The student must have fulfilled the prerequisites for Mathematics 141. (This means that the student must have completed one and one-half units of algebra plus one unit of geometry in high school, or must have completed Mathematics 50, 60, and 70 or equivalent.)

**Modern Language (or Latin):** The student must have completed satisfactorily one high school unit or one college semester of modern language (French, German, Italian, or Spanish) or of Latin.

**Natural Science:** The student must have completed satisfactorily one high school unit or one college semester of laboratory science, exclusive of elementary general science.

**Social Science:** The student must have completed satisfactorily any three semester hours from Group IV of the University core curriculum (see page 23), or the equivalent.

Beginning September 1, 1967, additional admission requirements will be in effect:

**Modern Languages (or Latin):** The student must have completed satisfactorily two high school units or two college semesters of one modern language (French, German, Italian, or Spanish), or Latin. Beginning with this date, students enrolled in Fairmount College will receive graduation credit for freshman-level courses in modern language (or Latin) only if such courses are in a second language field.

**Natural Science:** The student must have completed satisfactorily one of the following:

1. Two high school units of science at least one of which must have been a laboratory science (exclusive of elementary general science).
2. One high school unit of laboratory science and one college semester of laboratory science.
3. Two college semesters of laboratory science.

*The average will be based on college-level courses undertaken only, and will not include high-school grades. Probation level within Fairmount College will be 1.700 for the student with 24 to 63 hours of credit and 1.900 when the student has achieved 64 or more hours.
DEGREE REQUIREMENTS

The Bachelor of Arts, Bachelor of Science and Bachelor of Science in Medical Technology degrees are conferred in this college. Each degree requires a minimum of 124 credit hours and a grade point index of 2.00. The general requirements for graduation are listed on page 22. Through August of 1966, candidates for a degree from this college must complete the following:

(1) Two semesters of one foreign language unless they present two units of one foreign language from a secondary school. A student presenting one unit may fill the requirement by taking one additional semester of the same language in the University; and

(2) Three hours of mathematics, unless the student presents two units of algebra or a combination of one unit of algebra and one unit of geometry from a secondary school.

MAJOR AND MINOR OFFERINGS

The College of Liberal Arts and Sciences offers majors in the following fields: American Civilization, Art, Biology, Chemistry, Classical Languages, Economics, English, French, Geology, German, History, Journalism, Logopedics, Mathematics, Music, Philosophy and Religion, Physics, Political Science, Psychology, Sociology, Spanish and Speech.

Candidates for the Bachelor of Arts degree shall elect: (1) a major in one field of study of not less than 24 hours or more than 41 hours, or a combined major consisting of 24 hours from one field of study and 12 hours from an allied field of study, or a major from a professional field, including art, economics, logopedics and music; (2) at least 12 hours of upper division work in the major field; (3) work in such additional fields of study outside the major field of study as the faculty of the major field of study may deem appropriate. Any hours in one field of study above 41 must be counted as in excess of the 124 hours required for graduation.

Students who major in art, logopedics and music must establish two minors in the College of Liberal Arts and Sciences. Minors are offered in all fields of study listed above and in anthropology, geography, and police science. Minors acceptable from outside Fairmount College are engineering and accounting, and such education courses as are necessary for certification.

Candidates for the Bachelor of Science degree should consult with their major advisor relative to requirements. The Bachelor of Science degree is available in the following fields of study: biology, chemistry, geology, mathematics and physics and normally requires 43 hours for the major. However, any hours in one field of study above 43 must be counted as in excess of the 124 hours required for graduation.

FIELD MAJOR

This major is designed to provide a field of study wherein three or more fields of study are correlated to secure a broader appreciation of the cultural and dynamic factors of human conduct. The selection of the courses is made with the counsel of the adviser and the approval of the dean of the college. Such a major cuts across departmental lines and is determined by the field of specific interest but must be an acceptable combination. The allocation of the 36 hours required for the major is 18 in the major department and not less than 9 in each of two allied departments.

OTHER DEGREE REQUIREMENTS

In addition to the foregoing requirements for a degree from Fairmount College, the following requirements will be in effect for those students expecting to graduate in the spring of 1967, or thereafter:

- English: The student must complete, with a grade of C or better, at least three semester hours of American or English literature. (Note: Such a course may be chosen in such a way as to satisfy core curriculum requirements simultaneously.)

- History—Political Science: The student must demonstrate a proficiency in the field of American political system and institutions by (a) passing an examination offered once each semester, at an announced time, by the Departments of History and Political Science, or (b) passing one of the following courses: History 131 or 132, or Political Science 100 or 121 or 211. (Note: These courses also satisfy core curriculum requirements.)

- Mathematics: The student must complete satisfactorily either Mathematics 141, 142, or 121-122, or the equivalents. (Note: Students planning to major in Mathematics, the Natural Sciences, or Philosophy should take Mathematics 141, a five-hour course. Other students, e.g. those majoring in the humanities or the social sciences, may take 121-122, a six-hour sequence.)

- Modern Language: In fulfilling his degree requirements in modern language, the student may choose either “1” or “2,” below:

  (1) He may complete satisfactorily 5 semester hours beyond the level of 112 and representing any combination of high school and college credits in a single language. (Note: One year of high school work will be considered as the equivalent of one college semester. With the permission of the appropriate department a student with high school credit in foreign language may enroll for college credit at a level one semester below that for which his high school credit makes him eligible. Such permission is granted on an individual basis to students whose language experience has been interrupted or for whom special circumstances prevail. Without this permission no credit will be given for work done at a level which duplicates high school foreign language study.

  (2) He may complete satisfactorily the 111-112 sequence, or the equivalent, in a second language, if
he also can present at least two high school units or two college semesters of another language.

Natural Science: The student must complete satisfactorily nine semester hours (beyond the College entrance requirement), four of which must be in a laboratory science. Except for students majoring in the natural sciences, four semester hours must be taken in each of the physical and biological science divisions (as listed in the University core curriculum, page 22).

TRANSFER OF CREDIT WITHIN THE UNIVERSITY

Hours completed in colleges other than Fairmount College or University College shall be transferred for credit under the following general rules:

(1) Credit shall transfer when, in the judgment of the academic official charged with reviewing the transcript of a student, the work offered constitutes progress toward his new degree goal in Fairmount College. Not more than 21 hours shall be transferred, except in cases involving state certification requirements.

(2) In the courses listed below the following limitations shall be in effect:
   Only one credit hour in one semester and not more than 8 hours maximum credit shall transfer for chorus, band, or other ensembles.
   Applied music shall transfer not to exceed 8 hours.
   Applied art shall transfer not to exceed 8 hours.

SPECIAL PROGRAMS OF STUDY

The Fairmount College of Liberal Arts and Sciences provides courses which are basic for certain professional fields and for subsequent professional studies. The liberal arts studies are recognized as vital in establishing the background resources for such areas. Although there are many similarities in the broad pattern of preprofessional education, there are marked differences in specific requirements. The advisers in the various preprofessional fields and closely related departments will provide specific information relative to courses and requirements.

MEDICAL TECHNOLOGY

The Fairmount College of Liberal Arts and Sciences offers in cooperation with both St. Francis Hospital and Wesley Medical Center in Wichita the Bachelor of Science degree in Medical Technology. The first three years of this program are taken at the Wichita State University and the last year at either Wesley or St. Francis Hospital. The curriculum for this degree is described below.

FRESHMAN YEAR  

<table>
<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Math. 141, Algebra and Trigonometry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Chem. 111, General Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Biol. 111, Introductory Botany</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Speech 111, Extemporaneous Speaking</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Phys. Ed. 101</td>
<td>1</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Second Semester</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Chem. 118, General and Inorganic Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Biol. 112, Introductory Zoology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Eng. 111, College English</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Science *</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Phys. Ed. 102</td>
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SOPHOMORE YEAR  

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<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>Chem. 231, Organic Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Biol. 201, Introductory Cellular Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Eng. 211, Advanced Writing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Phys. Ed. 103</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Modern Foreign Language</td>
<td>5</td>
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<table>
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<tr>
<th>Course</th>
<th>Second Semester</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Chem. 252, Organic Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Social Science *</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Phys. Ed. 104</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Modern Foreign Language</td>
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</table>

JUNIOR YEAR  

<table>
<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Chem. 323, Introductory Analytical Chemistry</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Biol. 233, Human Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Biol. 301, Bacteriology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Humanities *</td>
<td>8</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Second Semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>6</td>
<td></td>
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<tr>
<td>Courses must be selected from the following: 302, 312, 324, 325, 343, 401.</td>
<td></td>
<td></td>
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<tr>
<td>Humanities *</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Humanities or Social Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>* Electives chosen in the Humanities and Social Sciences must fulfill the University Core Curriculum requirements.</td>
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</tbody>
</table>

SENIOR YEAR  

(School of Medical Technology, St. Francis Hospital, or at Wesley Hospital, Wichita, Kansas.)

<table>
<thead>
<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Med. Tech. 401, Bacteriology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 402, Biochemistry</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 403, Parasitology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 410, Mycology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 412, Serology</td>
<td>1</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Second Semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. Tech. 420, Urinalysis</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 422, Hematology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 432, Blood Bank</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 430, Histological Technique</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Med. Tech. 440, Basic Metabolism and Electrocardiography</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

PRE-LAW

In a statement of policy by the Association of American Law Schools, emphasis is placed upon undergraduate studies which provide "comprehension and expression in words; critical understanding of the human institutions and values with which the law deals; and creative power in thinking," to be achieved through disciplined study in the fields of the student's choice.

Degree requirements for a Bachelor of Arts degree will provide a general education and concentration in a field of major study. The prelegal adviser will provide information relative to requirements for entrance to law school.

PRE-MEDICAL, PRE-DENTAL, PRE-VETERINARY, PRE-PHARMACY, PRE-OPHTHALMOLOGY

Schools of medicine emphasize for admission a board education as well as prescribed studies in the
sciences. Preparation for the study of medicine should include, therefore, courses of study which develop disciplined thinking, intelligent appreciation of values, and sympathetic understanding of man and society. Since vital aspects of the study of medicine are associated with scientific knowledge and techniques, courses in biology, chemistry, physics, and allied fields are required. Students may choose to major in these fields but other majors may be selected in preparation for the study of medicine. The prospective physician should also possess those qualities of character which make for effective citizenship and professional competence. The adviser for pre-medical studies will provide information relative to the Medical College Admission Test recommended by the Association of American Medical Colleges and, upon request, a detailed outline of the various curricula for admission to medical school. Students are urged to consult with him at the earliest possible time in regard to the opportunities and requirements in this professional field.

While the four-year degree program is definitely preferable, it is possible in some medical schools to gain admission on the basis of a three-year program of studies. Students of Wichita State University who have taken 94 hours of preparation, the last 30 of which must have been taken at Wichita State University, have completed with the prescribed fields of study requirements, have 188 credit points with no more than 20 hours of D grade work, have passed the first year of medical or dental school (for 30 hours), and are eligible for admission to the second year may be granted the degree of Bachelor of Arts by Wichita State University if application be made by the candidate for such a degree. Students with a major in biology are required to complete within the 94 hours either the zoology or microbiology option listed under the biology department.

Schools of Dentistry require prescribed preparation in the sciences as well as general education. Although the entrance requirements are generally of the same character, the student should give careful attention to the pattern in the school of his choice. Emphasis upon the sciences, generally with a major in biology, is recommended. The adviser for pre-dental studies will provide a specific program of course work for either the three-year or four-year program.

The preparation for the study of veterinary medicine generally includes the essential pattern of basic education and emphasis upon science with special reference to biology. The adviser for pre-veterinary medicine studies will provide a specific program of course work.

Schedules may be arranged to meet entrance requirements of the various schools of optometry, osteopathy, pharmacy, mortuary science, and related professional fields.

PRE-THEOLOGICAL

Students interested in pursuing graduate theological work should arrange their programs of preparation in consultation with the head of the department of Religious Education. Specific requirements set forth by the individual seminaries can thus be satisfied.

PUBLIC SERVICE

There is a growing demand for college graduates in the field of public service. The foreign service of the United States offers an attractive field to a limited number of young men and women who desire a career abroad. The federal government and an increasing number of cities and states are using the principles of the merit system for their employees. Related fields, open to properly trained college graduates are found in municipal research bureaus and legislative reference bureaus. Preparation for such service is not confined to any one department. Students interested in public service as a career should consult with their advisers or the heads of their departments as to the courses which will best prepare them. Students interested in public administration should also consult the civil service bulletins.

SOCIAL WORK

Courses are provided for pre-professional training in various areas of social work. The social work courses are designed for three types of students: (1) all students as preparation for intelligent and responsible community citizenship, (2) the student who upon graduation may accept a position not now requiring professional graduate training, and (3) the student who plans to go on to a graduate school of social work. The offerings in social work are listed on page 65.

TEACHING

Students in the College of Liberal Arts and Sciences may qualify for secondary teaching certificates in Kansas and in several other states. Those who plan to qualify for the standard secondary teaching certificate must complete the program as outlined in items I and II on page 78.

LIBERAL ARTS AND SCIENCES CURRICULUM

SPECIAL INTERDEPARTMENTAL COURSES

Honors 300. Honors Colloquium (1-3).

Honors 301. Special Studies (1-5). A broad approach to the special problems of one of the major divisions of knowledge, i.e. humanities (301A), social science (301B), science (301C). Designed for non-majors in the subject.

Humanities 399. International Seminar (4). An interdisciplinary travel seminar: a study of European culture which includes observations of art and architecture in principal European cities, lectures and discussions of European political, social and economic problems given by foreign nationals, and conducted visits to various historic places of interest. Seminar under direction of a member of the faculty.
AMERICAN CIVILIZATION

The program in American Civilization provides a broad cultural background in American studies, and provides, proportionately, for a specialization in a field of the student's particular interest.

Major: 37 hours minimum, consisting of Amer. Civ. 301 (2-4), 9 hours from Amer. Civ. 311, 312, 411, 412, and Amer. Civ. 498 and 499 (required); 18 hours to be chosen from the following groups:

- English: 250, 252, 440
- History: 131, 132, 441, 444
- Political Science: 121, 211, 315, 316
- Anthropology: 309, 310, 336, 337
- Philosophy: 356
- Economics: 107
- Speech: 432

Minor: A minor in the College of Liberal Arts and Sciences consists of 15 hours, including American Civilization 301 (2-4) plus at least 6 other upper division hours.

301. Introduction to American Studies. (3). An examination of the American Civilization from an interdisciplinary perspective. The intent is to show how the humanities and social sciences can be linked in the study of America. Prerequisite: Consent of the department. May be repeated for a total of 4 credit hours.

311. The Colonial Period. (3). Those ideas and ideals, originally fostered by the English colonists, which were to become the foundation of the new democracy.

312. The Twentieth Century. (3). The main contributing factors shaping the Twentieth Century American civilization.

321. The Midlands and the High Plains. (3). The background, the factors in the settlement of this vast area, and the results of this settlement.

322. The American Southwest. (3). The background of the settlement of the American Southwest, the impact of the com mingling of three different cultures, and the evolving of a fourth culture.


412. The Growth of Nationalism. (3). American Civilization during the period of its awakening to its place as a nation and the problems encountered.

498. Introduction to Research. (3). Bibliography, methodology, and the philosophy of research. Prerequisite: department consent. May be repeated for a total of 6 credit hours.

499. Seminar in American Civilization. (3). Seminar and individual conferences organized around a problem or problems presented by a representative figure, theme, or period (e.g., the Industrial Revolution, Reconstruction, Westward Migration, Mark Twain and the Mississippi. Prerequisite: department consent. May be repeated for a total of 6 hours credit.

BIOLGY

Major: A major in biology leading to a Bachelor of Arts degree requires 30 hours of biology, and must include Biology 111, 112, and 201, or the equivalent. Chemistry 111, 112, 231 and 232, or the equivalent, are required.

A major in biology leading to a Bachelor of Science degree requires 40 hours of biology, and must include 111, 112, and 201, or the equivalent, Chemistry 111, 112, 231, 232 and 323, or the equivalent, and the courses listed in one of the three options, said option to be selected by the beginning of the Junior year.

Botany Option: Biology 322, 329 and 330.

Microbiology Option: Biology 301, 324 and 325. Students planning to do graduate work in Microbiology are expected to complete satisfactorily Mathematics 142.

Zoology Option: Biology 225 or 228; 227 and 320.

Minor: A minor in biology requires 15 hours, including Biology 111, 112 and 201.

Several of the courses offered in the Biology department are service courses, and are so designated. Service courses cannot be taken for credit toward a biology major or minor.

Lower Division Courses

Beginning in the Spring of 1968, instead of Biol. 102, Biol. 201 will be prerequisite for all higher courses, except Biol. 223.

100. Principles of Biology. (4). 3R; 2L. A general course in biology designed for students not majoring in sciences. Credit will not be given for both Biology 100 and Science 102: Biological Science.


111. Introductory Botany. (4). 3R; 3L. Fundamentals of plant science including plant structure, development and physiology, relationships of major plant groups, and biological principles illustrated with plant materials. Prerequisite: Chem. 111 or concurrent enrollment.

112. Introductory Zoology. (4). 3R; 3L. Fundamentals of animal science including animal structure, development and physiology, relationships of major animal groups, and biological principles illustrated with animal materials. Prerequisite: Biol. 111 and Chem. 112 or concurrent enrollment.

120. Introduction to Microbiology. (3). 2R; 2L. Service course. Fundamentals of microbiology with emphasis on microorganisms important in sanitation and disease.

130. Nutrition. (3). 3R. Service course. A study of human nutrition: composition and classification of foods; vitamins and their function; food and public health laws; disaster and space nutrition; detailed application of nutrition knowledge to various conditions (pregnancy, child, adult, aged).


223. Human Biology. (5). 3R; 4L. Service course. An introduction to the structure and functions of the human body. Credit not applicable toward the core requirement for laboratory science.


238. Vertebrate Zoology. (4). 2R; 6L. A comprehensive study of the vertebrates with emphasis on life histories, phylogeny, and evolution. Field work will be an integral part of the laboratory. Prerequisite: Biol. 102.
Upper Division Courses

301. Bacteriology. (5). 3R; 6L. An introduction to growth, development and metabolism of bacteria and related forms. Prerequisite: Biol. 102; and Chem. 231 or concurrent enrollment.

302. Pathogenic Microbiology. (3). 2R; 3L. An introduction to the important pathogenic microorganisms and their relations to health and diseases in man. Prerequisite: Biology 301.


312. Parasitology. (3). 1R; 6L. The parasites of man and other vertebrate hosts. Prerequisite: Biol. 225 or 227.

320. Comparative Animal Physiology. (4). 3R; 3L. A survey of physiological phenomena in the major groups of animals with attention to physiology as a unifying discipline in zoology. Prerequisite: Biol. 102 and Chem. 231.

322. Plant Physiology. (4). 2R; 6L. The functional dynamics of plant metabolism and growth, including water relations, nutrition, translocations, photosynthesis, respiration, and various aspects of development. Prerequisite: Biol. 102 and Chem. 231.

324. Microbial Physiology. (3). 3R. The physiology and metabolism of microorganisms. Prerequisite: Biol. 301 and Chem. 231.

325. Microbial Physiology Laboratory. (2). 6L. An introduction to the basic techniques involved in the study of microbial physiology. Prerequisite: Biology 301 and Chem. 231.


343. Mycology. (4). 2R; 4L. The structure, development and reproduction of fungi with emphasis on the cytology and physiology of forms of scientific and economic importance. Prerequisite: Biol. 102.


406. Analytical Methods in Biology. (2). 1R; 3L. The principles, capabilities and applications of modern techniques of instrumental measurement in biological research and teaching. Prerequisite: Biol. 102, Chem. 231, and Phys. 124.


411. General Ecology. (4). 2R; 6L. Principles of plant and animal ecology with field work as an integral part of the laboratory. Prerequisite: 20 hours of biology.


421. Serology. (3). 3R. The chemical basis of immunology and serology with emphasis on the application of serological procedures in various areas of biological investigation. Prerequisite: Biol. 102 and Chem. 331.

422. Serological Techniques. (2). 6L. Laboratory practice in qualitative and quantitative aspects of antibody production and antigen-antibody reactions. Prerequisite or co-requisite: Biology 421.

423. Cytology. (3). 2R; 3L. The structure, chemistry, development, and function of the cell with particular reference to chromosomes and their bearing on genetics. Prerequisite: Biol. 102.

430. Histology. (4). 2R; 6L. Microscopic anatomy of vertebrates with emphasis on the mammal. Prerequisite: Biol. 225.

460. Microbial Genetics. (4). 4R. The relationships between development, metabolism, and genetics in microorganisms. Prerequisite: Biol. 301 and 401 or department consent.

482. Topics in Botany. (2). Prerequisite: consent of instructor. May be repeated once for credit.

483. Topics in Zoology. (2). Prerequisite: consent of instructor. May be repeated once for credit.

484. Topics in Microbiology. (2). Prerequisite: consent of instructor. May be repeated once for credit.

490. Biological Literature. (1) 2R. An introduction to the use of biological literature and the preparation of reports. Prerequisite: 30 hrs. Biology.

Graduate Courses

500. Biology Seminar. (1). Reviews of current research in biology. Prerequisite: Biol. 490. May be repeated once for credit.


570. Microbial Metabolism. (3). 3R. Studies of the degradative and biosynthetic metabolic pathways of representative bacteria, yeasts and higher fungi. Prerequisite: Biology 301 and Chem. 231.

561 & 562. Research. (1 to 5; 1 to 5). Research opportunities are offered in the following areas of biology: genetics, physiology (plant, animal, microbial), parasitology, ecology (plant and animal), morphology (plant and animal), bacteriology, plant anatomy, and systematics. A maximum of 8 hours may be taken for credit.


CHEMISTRY

Major. A major with a Bachelor of Arts degree requires Chemistry 232, 324, 346, and the necessary prerequisites which include Mathematics 244 (or equivalent) and one year of college physics.

A major with a Bachelor of Science degree includes, in addition to the B.A. requirements, Chemistry 411, and a minimum of five hours chosen from Chemistry 406 through 459. These must be selected so as to provide at least four credit hours of lecture and one credit hour of laboratory work. A reading knowledge (or two semesters) of German is required. Additional physics and mathematics beyond the minimum requirements are strongly recommended. This curriculum meets the standards of the American Chemical Society Committee on the Professional Training of Chemists.

The student who is working toward the Bachelor of Science degree should consult closely with the department in planning his curriculum.
Lower Division Courses

109. General Chemistry. (5). 3R; 4L. A brief survey of inorganic, organic, and biological chemistry for the student who plans to take only one course in chemistry.

111. General Chemistry. (5). 4R; 2L. The general laws of chemistry and the non-metals and their compounds. Prerequisite: 1.5 units of high school algebra or 1 unit and Math. 70.

112. General and Inorganic Chemistry. (5). 3R; 4L. The chemistry of metals, electrochemistry, ionic equilibria, and introduction to qualitative analysis and organic chemistry. Prerequisite: Chem. 111 with a grade of C or better.

123-124. General and Analytical Chemistry. (5-5). 3R; 6L-3R; 6L. General chemistry and introductory quantitative analysis. Prerequisite: 1.5 units of high school algebra, 1 unit of high school chemistry, and consent of department.

201. Class Blowing. (1). 2L. Limited enrollment open to students upon recommendation of the chemistry department.

231-232. Organic Chemistry. (5-5). 3R; 6L-3R; 6L. For majors and premedical students. Preparation and identification of typical organic compounds of the aliphatic and aromatic series. Prerequisite: Chem. 112 (or equivalent) with a grade of C or better.

Upper Division Courses

302. Chemistry of Materials. (2). Fundamental general chemistry applied to chemical technology. Prerequisite: Chem. 112 (or equivalent) with a grade of C or better.

304. Elementary Physical Chemistry. (3). For students preparing for geology, biology, and medicine. Not for chemistry majors. Prerequisite: Chem. 112 (or equivalent) with a grade of C or better.

323. Introductory Analytical Chemistry. (4). 2R; 6L. The fundamental principles of gravimetric and volumetric analysis. Prerequisite: Chem. 112 with a grade of C or better.

324. Analytical Chemistry. (4). 2R; 6L. Analysis of complex mixtures and introduction to instrumental methods and organic analysis. Prerequisite: Chem. 231 and 323 (or equivalent), and 345. Corequisite: Chem. 346.

331-332. Organic Chemistry. (5-5). 3R; 6L-3R; 6L. The subjects of Chemistry 231-252 presented in a way designed to meet the needs of transfer students and others who may have had analytical chemistry in the sophomore year. Prerequisite: Chem. 112 (or equivalent) with C or better and consent of department.

Note: Chem. 331 and 332 are equivalent to Chem. 231 and 232 as prerequisites for subsequent courses. Credit will not be granted for both Chem. 231 and 331 or Chem. 232 and 332.

345-346. Physical Chemistry. (4-4). 3R; 3L-3R; 3L. Introductory physical chemistry for students having a background in physics and calculus. Prerequisite: Chem. 231, Math. 244 (or equivalent), and one year of college physics.

401. Chemical Literature. (1). The use of the chemical literature. Prerequisite: 20 hours of chemistry and consent of instructor.

406. Biochemistry. (4). 3R; 3L. An introduction to protein, lipide, and carbohydrate chemistry. Prerequisite: Biol. 102, Chem. 232 and 326 (or equivalent) or consent of instructor.

411. Inorganic Chemistry. (3). The periodic table; theoretical and descriptive inorganic chemistry. Prerequisite: Chem. 345. Corequisite: Chem. 346.


418. Inorganic Chemistry Laboratory. (1 to 2). 3L or 6L. Experimental methods of inorganic chemistry. Prerequisite: Chem. 411 or concurrent enrollment.

423. Chemical Spectroscopy. (3). 2R; 3L. Spectroscopy, spectrophotometry, and flame photometry. Prerequisite: Chem. 324 and consent of instructor.

424. Advanced Analytical Chemistry. (3). 2R; 3L. Electrochemical methods, chromatography, and radioactive tracer techniques. Prerequisite: Chem. 324 and consent of instructor.

425. Electronics. (2). 1R; 4L. Provides a working knowledge of electronic devices and circuits for the student or research worker who has little or no background in electronics. Prerequisite: Consent of instructor.

433. Organic Preparations. (1 to 2). 3L or 6L. The more difficult organic syntheses. Prerequisite: Chem. 232 and consent of instructor.


447. Chemical Thermodynamics. (3). Prerequisite: Chem. 346 (or equivalent).

459. Independent Study and Research. (1 to 2). Prerequisite: Chem. 346 (or equivalent) and consent of department.

Graduate Courses


511. Advanced Inorganic Chemistry. (2). Principles of coordination chemistry; bonding, structures, and reactions of complex compounds. Prerequisite: consent of instructor.

519. Special Topics in Inorganic Chemistry. (1 to 3). Prerequisite: consent of instructor.

521. Advanced Analytical Chemistry. (1). Analytical chemistry of the less familiar elements. Prerequisite: consent of instructor.

529. Special Topics in Analytical Chemistry. (1 to 3). Prerequisite: consent of instructor.

531. Advanced Organic Chemistry. (2). Recent advances in organic chemistry. Prerequisite: consent of instructor.

532. Heterocyclic Chemistry. (2). Prerequisite: consent of instructor.

534. Quantitative Organic Analysis. (2). Prerequisite: consent of instructor.

535. Physical Organic Chemistry. (2). Prerequisite: consent of instructor.

539. Special Topics in Organic Chemistry. (1 to 3). Prerequisite: consent of instructor.

541. Advanced Physical Chemistry. (2). Molecular structure, solutions, and kinetic theory of gases. Prerequisite: consent of instructor.

542. Chemical Kinetics. (2). Prerequisite: consent of instructor.

549. Special Topics in Physical Chemistry (1 to 3). Prerequisite: consent of instructor.

551. Research in Inorganic Chemistry. (1 to 5).

552. Research in Analytical Chemistry. (1 to 5).

553. Research in Organic Chemistry. (1 to 5).

554. Research in Physical Chemistry. (1 to 5).

* May be repeated for credit.

** At least one semester of physical chemistry is recommended in addition to the prerequisites listed.
ECONOMICS

MAJOR: The economics major in the College of Liberal Arts consists of a minimum of 30 hours and a maximum of 41 hours. Econ. 221, 222, 238, 340, 421 or 424, and 425 are required.

MINOR: A minor in economics in the College of Liberal Arts consists of 15 hours exclusive of Econ. 100 and 190 and must include Econ. 221.

(Courses are listed under Economics in the College of Business Administration and Industry.)

ENGLISH LANGUAGE AND LITERATURE

MAJOR IN THE COLLEGE OF LIBERAL ARTS: The major requirement is 33 hours. Required courses are English 221, 222, 225, 251, and 449. In addition English majors must select courses from the three groups as indicated below:

Period Courses:
(1) One of the following: 370, 371, 373, 374, 375, 376.
(2) One of the following: 252, 341, 342.

Major Author Courses: One of the following: 301, 430, 431, 433, 434.

Studies in Literary Types: One of the following courses: 302, 303, 321, 325, 324, 331, 332, 333.

MAJOR IN LIBERAL ARTS FOR STUDENTS PLANNING TO TEACH ENGLISH: Majors planning to teach English must fulfill the above requirements, making sure to include the following:
(1) One of the following: 303, 323, 324.
(2) One of the following: 202, 333, 342.
(3) Either 433 or 434.
(4) 315. A grade of B in English 315 or departmental consent is required of all majors who plan to teach English in junior or senior high school.

English 225, with a grade of B or departmental consent, is required of all majors who plan to teach English in junior or senior high school.

A 2.25 average in the major field and English Department approval is required for admission to the professional semester in the College of Education.

MAJOR IN LIBERAL ARTS WITH A CREATIVE WRITING SEQUENCE: With departmental approval, a student desiring a creative writing sequence within his major will fulfill the same requirements as other English majors with the following exceptions: Required courses are 222 or 225 only. In addition the student must select at least twelve hours from this group: 311, 312, 313, 314, and University Honors (1-6).

Note: All courses in the department will be credited toward the major with the following exceptions:
(1) 111, 248, 315 will not count toward the major.
(2) Only six hours from the following courses will be credited toward the major: 211, 311, 312, 313, 314, (except as noted in the Major with a creative writing sequence).

MAJOR IN THE COLLEGE OF EDUCATION: The requirements and exceptions listed above will apply to majors in the College of Education with the following additions:

(1) Education 442E is required of all students who plan to teach English in junior or senior high school.
(2) English 315 is required by the College of Education of all students who plan to teach in junior or senior high school.
(3) English 461 is strongly recommended for students who plan to teach in junior or senior high school.

MINOR IN THE COLLEGE OF LIBERAL ARTS: The minor requirement is 15 hours, including two of the following courses: 221, 222, 251. At least six hours must be in the upper division work.

Only three hours of the following courses will count toward the minor: 311, 312, 313, 314.

The following courses will not count toward the minor: 111, 248, 315.

Note: Minors in Liberal Arts planning to teach must meet the requirements listed below which are those for the minor in the College of Education.

MINOR IN THE COLLEGE OF EDUCATION: The minor requirement for those planning to teach junior or senior high school is 18 hours, including the following:
(1) 225, 251.
(2) Either 221 or 222.
(3) 315 (unless waived).
(4) One of the following: 302, 323, 324, 342.
(5) Either 433 or 434.

A C average in the minor field is required for admission to the professional semester in the College of Education.

Non-Credit Courses

70. English for Foreign Students. (0) 3R.

50. Writing Improvement Techniques. (0) 3R.

Lower Division Courses


111. College English. (3). See University College, p. 34.

261. Narrative in Literature and Film. (3), (2-Lecture; 2-Laboratory). A comparative aesthetic analysis of the art of narration in various literary types and in the film.

211. Advanced Writing. (3). Prerequisite: English 111 and sophomore standing or department consent. Recommended for non-English majors.

221 & 222. Survey of Major English Writers. (3-3). First semester: from the beginnings through the eighteenth century. Second semester: nineteenth century to the present. Required of all English majors.

223. Books and Ideas. (3). Open to any student but designed primarily for those who wish a course in literature which is appreciative rather than historical.
225. Literary Theory and Critical Writing. (3). Instruction in
critical reading and critical writing through study of repre-
sentative works in drama, poetry, and prose fiction. Not rec-
ommended for non-English majors or minors. Required of all
English majors.

240. Major Plays of Shakespeare. (3). Designed for students,
either majors or non-majors, who wish to study the best work
of Shakespeare's whole career in one semester. May not be
offered for credit by students who have credit in Engl. 433
or 494.

248. Business Correspondence and Report Writing. (3). Not
credited toward an English major or minor.

251. American Literature from Poe to Twain. (3).

252. American Literature from James to the Present. (3).

255. American Democracy. (3). Same as Political Science 211
(which see for description).

Upper Division Courses

No difference is made between 300 and 400 courses in this
curriculum. All are open to juniors and seniors alike and are
offered for graduate credit unless otherwise indicated.

301. Major American Authors. (3). The works of some out-
standing figures in American literature.

302. American Fiction. (3).

303. American Drama. (3).

309. Theme and Idea in Literature. (3). Reading, discussion
and some writing on literature from all periods, centering on
the development of a theme of human thought and action, designed
 especially for non-English majors. May not be offered for
graduate credit.

310. Inter-related Arts. (3). Inter-departmental course
presenting an aesthetic analysis of three arts. The course will
emphasize style in the three arts rather than the history of art.
 Offered in alternate years.

311 & 312. Creative Writing: Workshop in Prose Fiction.
(3-3). May not be offered for graduate credit.

313 & 314. Creative Writing: Workshop in Poetry and Drama.
(3-3). May not be offered for graduate credit.

315. The Structure of English. (3). Not credited toward an
English major or minor, except in the College of Education.
May not be offered for graduate credit.

321. Elizabethan and Jacobean Drama. (3). (Offered in
alternate years.)

323. Later British Drama. (3). Selected plays from the
Restoration to the modern period. (Offered in alternate years.)

324. Contemporary Drama. (3). English, American, and
continental plays of the twentieth century.

331 & 332. The English Novel I and II. (3-3). First semi-
ter: Defoe through Thackeray. Second semester: George
Eliot through Galsworthy.

333. Contemporary Fiction. (3). English, American, and
Continental novels of the twentieth century. (Formerly offered as
Engl. 343.)

341. Modern British and American Literature from 1900 to
1925. (3).

342. Modern British and American Literature from 1925 to
present. (3).

370. Elizabethan Literature. (3). Sidney, Spenser, Jonson,
and their contemporaries.

371. The Age of Donne. (3). The Metaphysical poets and the
Cavalier poets, and their contemporaries.

375. The Romantic Age. (3). Wordsworth, Coleridge, Byron,
Shelley, Keats, and their contemporaries. (Formerly offered as
Engl. 443.)

374. Victorian Literature. (3). Dickens, Tennyson, Browning,
Arnold, Huxley, Hopkins, Hardy, and their contemporaries.

375 & 376. The Neo-Classical Age I & II. (3-3). First
semester: Dryden, Pope, Swift, and their contemporaries. Sec-
ond semester: Johnson, Fielding, Richardson, Sterne, and their
contemporaries.

399. The Bible as Literature. (3).

401. Old English. (3).

402. Medieval Literature. (3). Middle English poetry, prose,
and drama from the twelfth to the fifteenth century.

403. Milton. (3).

431. Chaucer. (3).

433 & 434. Shakespeare I & II. (3-3). First semester: Shakes-
peare's work to 1600. Second semester: Shakespeare's work
after 1600.

440. Folklore. (3).

446. Literary Criticism. (3). Explores various historical and
modern approaches to literary criticism and research. Required
of English Majors. Prerequisite: English 225.

451. History of the English Language. (3).

462. Theory of Language. (3).

471 & 472. World Masterpieces I & II. (3-3). First semester:
Selected readings in Oriental, Hebrew, Greek, Roman and Me-
dieval European literature in translation. Second semester:
Selected readings in European literature of the late Medieval
Renaissance and Modern periods in translation.

473. Mythology in World Literature. (3). Mythology in lit-
erary works of ancient Greece and Rome, of Medieval Europe,
and of some Oriental and Near Eastern literatures. Some study of
comparative mythology and of the recurrence of myths in later
periods of literature.

475 & 476. Independent Reading. (1-3; 1-3). Designed for
majors and non-majors who want to pursue special reading or
research projects in areas not normally covered in course work.
Admission to courses is determined by the departmental honors
committee. May not be offered for graduate credit.

480 & 481. Special Studies. (1-3; 1-3). The individual in-
structor will announce which literary figure, or groups of fig-
ures, or literary problem, or relationship between literature and
ideas will be studied during the semester. May be repeated
for credit.

Additional honors work: Each semester one upper division
course will be designated as an honors course, and enrollment
will be limited to Honors students, either majors or non-majors,
selected by the departmental honors committee.

Graduate Courses

501. Graduate Period Courses in English Literature. (3). (a)
Medieval Literature. (b) 16th century. (c) Age of Donne. (d)
Restoration and Early 18th century. (e) Later 18th Century. (f)
Romantic Age. (g) Victorian Age. (h) Modern British Literature.
Extensive reading in significant writers and in scholarship and
criticism about their work. Lectures, discussion, reports.

502 & 503. Graduate Survey of American Literature I and II.
(3-3). First semester: Classic American writers such as Haw-
thorne, Melville, Thoreau, Emerson, Whitman, Whittier. Sec-
ond semester: Later American writers such as Twain, James,
Hemingway, Faulkner, and poets of the 20th century rensa-
sance. Extensive reading in primary and secondary materials,
lectures, discussions, reports.

504. Graduate Studies in Major Areas. (3). (a) Drama, (b)
Fiction, (c) Poetry, (d) Criticism, (e) Linguistics. With depart-
ment consent, may be repeated for credit.

506. Introduction to Graduate Study in English. (3). A course
especially designed to prepare students to perform effectively in
graduate classes in English. The course is concerned with:
(1) Basic bibliographical tools; (2) terminology, both technical
and historical; (3) various approaches to the study of literature, such as intrinsic analysis of a literary work, the relationships of biography to literary study, and the relevance of other disciplines, such as psychology, to literature; (4) the writing of interpretative and research essays. Throughout the semester a balance between criticism and research is maintained.

509 & 510. Creative Writing. (3-3). Students who plan to offer a novel, play, or other creative writing as a thesis, will be permitted to do creative writing for graduate credit. The department reserves the right to refuse, without prejudice to the student’s Master of Arts program, any applicant for this work whose success seems doubtful.

511. Directed Reading. (1-3).

520. Graduate Seminars in Special Topics. (3). Intensive study of selected texts, writers, or literary problems. Seminar discussions, reports, and research projects. With department consent, may be repeated for credit.

531. Major Plays of Shakespeare. (3).

575. Master’s Essay. (1-3).

FRENCH

Major: A major in French consists of 24 semester hours beyond French 111-112 or their equivalent, and must include the survey of French literature (six hours). In addition, it is strongly recommended that French majors: (1) Choose a minor in some other foreign language, and (2) elect, where possible, complementary courses such as those appearing in the fields of History, Philosophy, and Political Science.

Minor: The French minor consists of 21 semester hours, or if high school equivalent is accepted, 11 hours beyond the French 112 level. In either case, 8 hours or the equivalent are required on the intermediate level (including 221-222, 225), plus a three hour upper division course exclusive of Major Topics.

Lower Division Courses

111-112. Elementary French. (5-5). A year course. Speaking, reading, writing, including grammar essentials, and oral homework involving regular outside use of the language laboratory.

221-222. Intermediate French Readings. (3-3). Intensive reading of French literary works and grammar review. Prerequisite: French 112 or equivalent. (221 is not open to students with prior credit in French 223.)


229. French Civilization. (2). The background of history, art, and institutions. Prerequisite: French 221 or 225, or 112 with department consent.

Upper Division Courses

Upper division courses are given on a rotating basis. French 222 is prerequisite for all upper division literature courses.

310. Phonetics and Diction. (2). Prerequisite: French 112 with department consent.

315-316. Major Topics. (1 to 3). Work may be done in any field or period agreed upon. Total credit not to exceed 4 hours. Prerequisite: French 222 with a “C” or better or department consent.

339. Explication de textes. (2). Scrutiny of poetry and prose passages, with a careful study of the contents, style, author, and background. Prerequisite: French 222.
Upper Division Courses

331. Geomorphology. (3). 2R; 3L. Genesis and interpretation of land forms; major physiographic provinces of North America. Prerequisite: Geol. 201 or Geol. 112.

333. Structural Geology. (3). The mechanics of rock deformation; the description and genesis of features resulting from diastrophism. Prerequisite: Geol. 225 and Physics 123.

335. Field Mapping. (2). 6L. Field mapping methods, with special reference to use of level, compass, barometer, alidade, and air photos. Prerequisite: Geol. 201 or Geol. 112.

336. Field Stratigraphy. (3). 3L. Field geology and stratigraphy of Eastern Kansas. Prerequisite: Geol. 112.

337. Invertebrate Paleontology. (3). 2R; 3L. Invertebrate fossils, criteria of identification, classification. Prerequisite: Geol. 112, or Biology majors upon instructor's consent.

347. Sedimentology. (3). 2R; 3L. Origin, classification, texture, and structure of sedimentary rocks. Prerequisite: Geol. 225 or department consent.

361. Economic Resources. (3). 2R; 3L. Distribution, classification, composition, and origin of economic resources, with special reference to fuels, minerals, and rocks. Prerequisite: Geol. 226.

405. Regional Geology of the United States. (3). A detailed regional survey of the general geology, geomorphology, stratigraphy, and structural geology of the United States. Prerequisite: Geol. 331 or concurrent enrollment.

425. Optical Analysis. (4). 2R; 6L. Use of the polarizing microscope; mineral identification and rock classification. Prerequisite: Department consent.

436. Vertebrate Paleontology. (3). 2R; 3L. Systematic study of the fossil record of the vertebrates; laboratory training in identification of fossil bones and teeth; emphasis on regional faunas; collecting and museum trips required. Prerequisite: Geol. 112 and Biol. 101; or Biology majors upon instructor’s consent.

435. Micropaleontology and Palynology. (5). 3R; 4L. This course is designed to prepare students to work in laboratories of oil companies, geological surveys and oceanographic stations. Emphasis on latest techniques, identifications, and use in correlation of foraminifera, fusulinids, dinoflagellates, coccoliths, spores, pollen, palynomorphs, etc. Prerequisite: Geology 113 and consent of instructor.

440. Map Interpretation andPhotogeology. (3). 2R; 3L. Construction, use, and interpretation of maps; use and interpretation of aerial photographs. Prerequisite: Geog. 201 or Geol. 112.

443. Subsurface Geology. (3). 2R; 3L. All subsurface methods, including laboratory, logging, testing, treatment, valuation, and mapping methods. Prerequisite: Geol. 226 and Physics 124.

444. Petroleum Geology. (3). 2R; 3L. Origin, migration, and accumulation of oil and gas in the earth’s crust. Distribution and significant features of modern fields. Prerequisite: Geol. 112.

445. Subsurface Formation Evaluation. (2). Detailed study of fluid content, fluid pressures, and other characteristics of subsurface formations as revealed by electric logs, other types of mechanical logs, and various testing devices. Introduction to the principles and uses of shut-in pressure build-up data. Prerequisites: Geol. 443 and 444 or consent of instructor.

446. Advanced Historical Geology. (3). The events of earth history, particularly those of North America, and the origin and evolution of plants and animals. Prerequisite: Geol. 112.

448. Sedimentary Petrology. (3). 1R; 6L. Macroscopic and microscopic examination of sedimentary materials. Prerequisite: Geol. 347.

462. Ore Deposits. (3). 2R; 3L. An advanced treatment of the occurrence, classification, and origin of metalliferous ore deposits. Prerequisite: department consent.

480. Geochemistry. (3). 3R. The chemistry of earth materials; the important geochemical processes and cycles operating on and within the earth through time. Prerequisite: Geology 226 and Chem. 112 or consent of instructor.

499. Research in Geology. (1-3). Research on special problems in the field of geology: (a) General; (b) Mineralogy; (c) Petrology; (d) Structural; (e) Paleontology; (f) Economic; (g) Sedimentology; (h) Petroleum; (i) Stratigraphy; (j) Geophysics. Prerequisite: Department consent.

Graduate Courses

500. Research in Geology. (1-3). Research on special problems in the field of geology: (a) General; (b) Mineralogy; (c) Petrology; (d) Structural; (e) Paleontology; (f) Economic; (g) Sedimentology; (h) Petroleum; (i) Stratigraphy; (j) Geophysics. Prerequisite: Department consent.

505. Advanced General Geology. (4). 2R; 6L. Principles, physical processes, structure, earth history, and economic implications of geology, based upon a study of original sources; student reports. Prerequisite: Instructor’s consent.

511. Geophysics. (3). The physics of the earth and the methods of determining various physical data pertaining to geology. The fundamental principles underlying seismic, gravitational, magnetic, and electric methods will be emphasized. Some consideration will be given to the thermoelectric, and radio-active methods used in obtaining data from bore holes. Prerequisite: Physics 124 or instructor’s consent.

521. Stratigraphy. (3). 2R; 3L. The principles governing the classification and nomenclature of sedimentary rock sequences. Special emphasis on problems of correlation and facies changes in regions which give petrographic possibilities. Prerequisite: Instructor’s consent.

530. Petrography. (4). 2R; 4L. An introduction to the study of mineral composition and textures of igneous, sedimentary, and metamorphic rocks as displayed in thin sections. Modes of genesis are studied by giving consideration to the mineral grain relations and to geologic aspects of rock units. Prerequisite: Geology 425.

534. Geotectonics. (3). Physical and geological principles of crustal deformation and tectonic interpretation; orogenies and epeirogenies in their time-space relationships; special reference to structural geology of North America. Prerequisite: Instructor’s consent.

537. Paleocology. (3). Reconstruction of ancient terrestrial and marine environments. Emphasis on synthesis of total raw data (paleontological, sedimentary, mineralogical, stratigraphic, etc.). Prerequisite: Instructor’s consent.

549 & 550 Geology Seminar. (1-1). Review of current periodicals. Reports on students and faculty research. Prerequisite: Instructor’s consent. May be repeated for credit up to 2 hours each.

575 & 576 Thesis. (2-2).

* May be offered only in alternate years.
** May be repeated for credit up to 8 hours.

GEOGRAPHY

Lower Division Courses

125 Principles of Geography. (3). An introductory course in college geography, emphasizing the relationship between human activities and natural environment.

201. Physical Geography. (3). 2R; 2L. Emphasis upon the physical basis of geography, including climate, terrain, soils, landforms, and the sea; economic resources; cartographic elements; introduction to regional studies.
210. World Geography. (3). A general survey of world geography, including an analysis of the physical, political, economic, historical, and human geography of the major world regions.

235. Meteorology. (3). 2R; 2L. An introductory study of the atmosphere and its properties and the various phenomena of weather; a brief survey of important principles of physical, dynamic, synoptic, and applied meteorology. Prerequisite: Math 121 or equivalent. Does not apply toward a major or minor in Geology.

Upper Division Courses

392. Geography of Anglo-America. (3). Physical, political, economic, historical, and human geography of the United States and Canada. Lectures, assigned readings, films, and reports.

331. Geomorphology. (3). 2R; 3L. (See Geol. 331.)

335. Field Mapping. (2). 6L. (See Geol. 335.)

342. Geography of Europe. (3). 3R. Physical, political, economic, historical, and human geography of Europe. Lectures, assigned readings, films and reports.

361. Economic Resources. (3). 2R; 3L. (See Geol. 361.)


440. Map Interpretation and Photogeology. (3). 2R; 3L. (See Geol. 440.)

* May be offered only in alternate years.

GERMAN

Major. A major in German consists of a minimum of 24 hours beyond the level of German 112 and including German 325. In addition, the student should elect courses in one other foreign language, English language and literature, history, and philosophy.

Minor. A minor in German consists of a minimum of 11 hours beyond the 112 level, to include German 225 and one upper division literature course.

Lower Division Courses

111-112. Elementary German. (3-5).

223-224. Intermediate German. (3-5). Grammar review; intensive reading of short stories; extensive reading of one short novel. Prerequisite: German 112 or equivalent.

225-226. German Conversation and Composition. (2-2). Use of language laboratory develops fluency; dictation and free composition exercises develop style. Prerequisite: German 112 or equivalent.

225-226. German Conversation and Composition. (2-2). Use of language laboratory develops fluency; dictation and free composition exercises develop style. Prerequisite: German 112 or equivalent.

Upper Division Courses

Except as noted, all upper division courses have as prerequisite German 224 or department consent.

321. German in Technical Fields. (3). Supervised individual readings in the student’s field of specialization—humanities, social sciences, or natural sciences. Prerequisite: German 225, 325-336. Advanced Composition and Grammar. (2-2). Prerequisite: German 226 or department consent.

331 & 332. Survey of German Literature. (3-3). First semester: to the 18th century. Second semester: 18th century to the present. (Offered in alternate years.)

336 & 337. The Eighteenth Century. (3-3). Enlightenment, Sturm und Drang, and Classicism in the works of Goethe, Schiller, and their contemporaries. (Offered in alternate years.)

421. German Romanticism. (3). (Offered in alternate years.)

423. Nineteenth Century Literature. (3). (Offered in alternate years.)

435. Drama. (3). (Offered in alternate years.)

436. Contemporary Literature. (3). (Offered in alternate years.)

HISTORY

Major: 31 hours minimum. The major will specialize in one of the following areas:

(1) Ancient and Medieval.
(2) Modern Europe.
(3) England.
(4) United States.
(5) Latin America.

Students electing Group I through III will take 101 and 102 and one other lower division course. Students electing Group IV or V will take 131 and 132 and one other lower division course. Nine upper division hours are to be selected from courses in the appropriate group, chosen in consultation with an adviser. All majors will take 498 and 300. In addition, sufficient hours will be elected to bring the total to 31. At least 5 of these hours must be at the upper division level and may not be in the area of specialization.

Minor: A minor in the College of Liberal Arts and Sciences consists of 15 hours, including either 101 and 102 or 131 and 132 and at least three upper division hours.

Lower Division Courses

101 & 102. History of Western Civilization. (4-4). 101: Prehistory to 1648 (open to freshmen and sophomores only). 102: 1648 to the present (open to freshmen and sophomores only).

113 & 114. English History (3-3). 113: From the earliest times to the beginning of the Stuart period, emphasizing the origin and development of institutions, customs, and nationalism. 114: From the beginning of the Stuart period to the present.

125 & 126. History of the Americas. (3-3). A survey of the history of the New World with some emphasis on institutional development and interrelationships. 125: Prehistory to 1826. 126: 1826 to the present.

131 & 132. History of the United States. (4-4). 131: Survey from the colonial period through the Civil War (open to freshmen and sophomores only). 132: Survey from Reconstruction to the present (open to freshmen and sophomores only).


271 & 272. The Far East. (3-3). A survey of the social, economic, and political development of the Far East with emphasis on China, India, and Japan. Prerequisite: sophomore standing.
Upper Division Courses

300. Introduction to Historical Research and Writing. (2). Basic instruction in research methodology, composition, and criticism. Required of history majors.

301 & 302. The Ancient Mediterranean World. (3-3). 301: The ancient Near East and the Greek world to the death of Alexander the Great. 302: The Hellenistic Age: the Roman Republic and Empire to 585 A.D.


311 & 312. A Study of the Rise of the West. (3-3). A course designed for juniors, seniors and honor students covering western civilization through lectures assigned readings of historical classics and group discussions. Not offered for graduate credit and closed to students with credit for History 101 and 102.

313 & 314. History of the United States. (3-3). 313: Discovery, exploration, colonization, the national period and the Civil War. 314: Reconstruction, economic and social development of the nation, and the rise of the United States to a dominant world power. These courses are open to juniors, seniors, and honor students only; not offered for graduate credit and closed to students with credit in History 151 and 192.

322. Byzantine History. (3). Survey of Byzantine history from its origins in the late Roman world to its fall in 1453 with an investigation of its major institutions and foreign relations.

323 & 324. Medieval History. (3-3). 323: The history of Europe from the fall of the Roman Empire through the Crusades. 324: Continues to 1500.

325. The Bolivarian States. (3). Venezuela, Colombia, Ecuador, Peru, and Bolivia from independence to the present.

326. Republic of Mexico. (3). Mexico from the independence movement to the present.

327. Argentina, Brazil, and Chile. (3). From independence to present.

328. Inter-American Relations. (2). Includes economic and cultural as well as political topics.

329. Central America and the Caribbean. (2). From the independence period to the present, with special attention to U.S. involvement in this area.

331. The American Colonies. (3). Colonization of the New World with emphasis on the British peoples and their development.

333. The American Revolution and the Early Republic. (3). Examination of selected phases of the Revolutionary, Confederation, and Federal periods.

334. Age of Jefferson and Jackson. (3). Political, economic and cultural development of the United States from the election of Thomas Jefferson to the Whig victory of 1840, with emphasis on the growth of American nationalism.


413. Eighteenth Century Great Britain. (3). From the accession of William and Mary to the French Revolution.


422. The Northern Renaissance. (2). The transfer of the cultural influence of Italy north of the Alps and the cross influence of northern European cultural and political phenomena.

423. The Italian Renaissance. (2). Italian history from the fourteenth through the sixteenth centuries with an emphasis on cultural achievements.

424. The Reformation. (2). The great religious changes of the sixteenth century in their political, social, and intellectual contexts.

431. Civil War and Reconstruction. (3).

432. The United States, 1877 to 1900. (3). Economic, constitutional and political evolution of American society caused by the impact of immigration, urbanization, industrialization, and extensive commercial agriculture.


436. Age of Enterprise and Economic Consolidation. (3). Economic development of the United States from the Civil War to the present.

437 & 438. Social and Intellectual History of the United States. (3-3). 437: Survey of American thought and society to the end of the Civil War. 438: The significant social and intellectual currents from the middle of the nineteenth century to the present, with special reference to the interaction between ideas and social structure.

440. History of the American South, 1607 to Present. (3). Emphasis upon factors which created a unique Southern civilization and events which have drawn the New South closer to other sections of the nation.

441. History of Kansas. (3). History of the Kansas region from sixteenth century Spanish exploration to the present, with principal emphasis on the period after 1854.

442 & 443. History of Eastern Europe. (3-3). The development of the Balkan, Czeck, Magyar, Polish, Rumanian, and Yugoslav peoples.

444. Western Expansion to 1840. (3). Exploration and settlement of the coastal and trans-Appalachian frontiers from colonial times to about 1840.

445. The Trans-Mississippi West. (3). Background and development of Anglo-American penetration and settlement west of the Mississippi River, with some emphasis on the frontier hypothesis and its critics.

446. Agricultural History of the United States, 1607 to Present. (3). Dealing with the important economic and social role played by farmers in the creation of American society.


450. The French Revolution and the Napoleonic Period. (3).


453 & 454. History of Russian Thought. (3-3).

455 & 456. Europe Since 1870. (3-3). 455: Politics and diplomacy leading to World War I. 456: Politics and diplomacy leading to World War II.

457. Social and Intellectual History of Europe. (3). The major intellectual and social currents of European history and their connection to historical events.

462. Seventeenth Century Europe. (3).


464. Europe, 1815-1870. (3).

470 & 471. Modern Germany. (3-3). 470: Creation of the German Empire and its role in world affairs 1848 to 1914. 471: establishment and collapse of the Weimar Republic, the rise and fall of Hitler’s Third Reich, the divided Germany of the present, and the role of each in world affairs, 1914 to the present.
495. Special Topics in History. (2-4).

498. Historiography. (2). Review of the major schools of historical thought, philosophies of history, and eminent historians, from the ancient world to the present.

Graduate Courses

531 & 532. Seminar in American History. (3-3). Includes both United States history and Inter-American relations. Prerequisite: Consent of department. May be repeated for credit.

533 & 554. Seminar in Modern European History. (3-3). Prerequisite: Consent of department. May be repeated for credit.

575. Thesis Research. (1-3).

576. Thesis. (1-3).

ITALIAN

Italian is an offering of the Spanish Department. No major or minor is offered.


223. Selected Italian Readings. (3). Intensive reading of Italian literary works. Discussion in Italian, oral and written summaries. Prerequisite: Ital. 112, or two units of high school Italian or department consent.

JOURNALISM

Major. The major in journalism consists of 24 hours, including Journ. 115, 226, 247, and 448, and a concentration of not less than 15 hours in one additional field of study in a school or college of the University. Subject to departmental approval in individual cases, certain courses in other fields, particularly Art, Business, Economics, Education, English, History, Political Science, Psychology, Sociology, Speech and Foreign Languages, may be applied to the journalism major requirements. In addition, one of the following sequences must be completed:

Advertising-Public Relations Sequence: Journ. 338, 439, 450.
Photography: Journ. 232, 332.

Lower Division Courses

Journ. 115. Introduction to Mass Communication. (2). Required for the major in journalism. The role of mass communication in media, with emphasis on the history of American Journalism. Consideration of the freedom and responsibilities of the mass media.

Journ. 226. Newswriting. (3). 2R; 3L. Required for the major in journalism. Evaluation, reporting and writing of various types of news stories. Qualified students will participate in production of the laboratory newspaper, The Sunflower. Prerequisite: Journ. 115 or department consent.

Journ. 232. Introductory Photographic journalism. (3). 2R; 3L. Basic photographic theory and technique, with emphasis on aspects of importance to journalists, writers and editors. Using the department’s cameras and laboratory facilities, students take, develop and prepare photographs for publication. Prerequisite: Department consent.

Journ. 247. Journalism Research. (2). Required for the major in journalism. Introduction to basic research techniques and sources of particular value to the professional journalist, and their application in the preparation of several research papers.

Upper Division Courses

Journ. 325. Radio and Television News. (3). 2R; 3L. Reporting and writing with emphasis on the special requirements of broadcast media.

Journ. 330. Advanced Newswriting and Reporting. (3). 2R; 3L. Reporting and writing the more demanding types of material: feature, interpretive and public affairs stories, editorials and interviews. Prerequisite: Journ. 226.

Journ. 332. Advanced Photojournalism. (3). 2R; 3L. Application of still and motion picture techniques to the preparation of news, feature and documentary material for print media and television. Prerequisite: Journ. 232 and department consent.

Journ. 336. Editing. (3). 2R; 3L. Selection, evaluation and preparation of copy and pictures for publication; copyreading, rewriting, headline and caption writing, page makeup. Prerequisite or concurrent: Journ. 330.


Journ. 360. Journalism Internship. (1-4). On-the-job experience and training in news, advertising or public relations. Although the Journalism Department will assist to the extent possible, students are expected to secure their own positions with nearby commercial firms. Work on a regular basis in a supervisory or otherwise responsible capacity on The Sunflower, Farmhouse, or in radio station KMUW-FM will be accepted as internship.

Journ. 347. Writing for Magazines. (2). Researching and writing non-fiction articles for submission to magazines and newspapers. Enrollment limited, with preference to journalism majors. Prerequisite: Department consent.

Journ. 439. Advanced Advertising. (3). Techniques of copywriting; selection and presentation of sales messages; analysis and critique of advertising materials and campaigns with emphasis on factors influencing management decisions. Prerequisite: Journ. 338.

Journ. 444. Policies and Problems in Mass Communications. (3). Functions and responsibilities of mass media management; development and direction of policy, with stress on legal and ethical considerations. Prerequisite: Journ. 336.

Journ. 448. Special Topics in Journalism. (3). Directed individual research in various aspects of journalism and mass communications, or related topics. Preparation of a major term paper.

Journ. 450. Public Opinion, Public Relations, and Propaganda. (3). Survey of current practices and problems in the field of public opinion and public relations, with emphasis on various public relations functions, communication and publicity techniques; analysis of relationships with news media, government, employees, stockholders, consumers and other groups; consideration of propaganda campaigns and techniques with a view to developing skill in identifying and analyzing biased communications. Prerequisite: Department consent.

LATIN AND GREEK

Major: The major in Latin consists of 30 hours, including at least 10 hours of upper division courses. It is recommended that Latin majors take History 307 and 308 (Roman) and History 323 and 324 (Medieval).

Minor: A minor in Latin consists of 15 hours or, if
high school equivalent is accepted, of 12 hours beyond the 112 level. In either case a 300 course must be included.

LATIN

Lower Division Courses

111-112. Elementary Latin. (5-5). Forms, syntax, vocabulary, and reading of stories from Roman history and mythology and from Cesar’s Gallic Wars.

223. Cicero. (3). Reading of three orations and two philosophical essays. May be repeated once for credit. Prerequisite: Latin 112 or equivalent or department consent.

224. Vergil’s Aeneid. (3 to 5). Mythology and practice in metered reading. Emphasis on the literary value of the material. Prerequisite: Latin 112 or equivalent or department consent.

226. Horace. (3). Selections from the Odes. Prerequisite: Latin 233 or 224.

250. The Latin Element in the English Language. (3). A systematic consideration of related roots and affixes in the two languages. Prerequisite: sophomore standing or department consent; previous knowledge of Latin not required.

Upper Division Courses

330. Advanced Latin Composition. (3). Translation of ordinary English prose into Latin. Prerequisite: 15 hours college Latin or equivalent or department consent.

322. Selected Readings. (2-3). Prerequisite: 15 hours college Latin or equivalent or department consent. Work may be selected from the following fields:
1) Medieval and Renaissance Latin.
2) Ovid and Martial.
3) Tacitus, Livy, and Sallust.

331. Pliny. (2). The reading of Pliny’s Letters. Prerequisite: 10 hours of college Latin.

332. Plautus. (2). The reading of the Capitols and the Triniformus. Prerequisite: 10 hours of college Latin.

GREEK

Lower Division Courses

111-112. Elementary Greek. (5-5). Forms, syntax, vocabulary, and reading of selections from Xenophon’s Anabasis.

251. Greek in English. (3). Designed to afford an acquaintance with and appreciation of the Greek language. Sufficient study is made of forms to provide training in the recognition and meaning of English words derived from the Greek.

Upper Division Courses


MATHEMATICS

Since a satisfactory major depends primarily on a suitable combination of courses, the courses which comprise the major must be approved by the department.

MAJOR: A major should include, in all cases, 244, 313, and 335 (or 450 for students with special interest in applications); and a reasonable distribution of additional courses to cover properly the field. In addition, Phil. 325 is required.

For the B.A. degree, the major requires a minimum of 15 hours of upper division work. The foreign language should be French or German.

For the B.S., the major requires a minimum of 21 hours of upper division work and the completion of one of the sequences 313-314 and 335-336. In addition, except for a statistics emphasis, one course should be taken from among 405, 412, 415 and one from 437, 438, 446. For a statistics emphasis, 371, 471, and 472 should be elected at the possible expense of the two courses suggested above. In addition, nine hours of upper division credit in Philosophy or in one of the Natural or Social Sciences are required. The foreign language must be French or German.

MINOR: There are two sequences leading to a minor, both requiring a minimum of 15 hours. One requires Math. 243 (or 251) and at least one upper division course. The other consists of Math. 121-122-245 and at least 6 hours of upper division work.

For students intending to major in the College of Liberal Arts or certain other programs in the University (see appropriate sections of the Catalog), high school mathematics work (or its equivalent) amounting to less than 1½ years of algebra and one year of geometry is considered an entrance deficiency and should be made up by some form of remedial work. Placement is made in credit courses as follows:

(1) Students with high school prerequisites for Math. 121 may register for this course without examination.

(2) Students with high school prerequisites for Math. 141 may register in this course upon passing the appropriate departmental examination.

(3) Students without high school prerequisites but with equivalent knowledge may be placed in 121 or 141 upon passing the appropriate departmental placement examination.

(4) Students with high school work equivalent to 141 may be granted placement in 142 by passing a placement examination over the material of 141.

(5) Special cases may be placed at any other appropriate level by the department.

Non-Credit Courses

50. Elementary Algebra. (0). 3R. For students without high school credit in algebra. May be used, in meeting department prerequisites, in place of one unit of high school algebra.

60. Plane Geometry. (0). 3R. For students without high school credit in plane geometry. May be used, in meeting department prerequisites, in place of one unit of high school geometry. Prerequisite: One unit of high school algebra or concurrent enrollment in Math. 50.

70. Intermediate Algebra. (0). 2R. A continuation of the study of elementary algebra. May be used, in meeting department prerequisites, in place of the third unit of high school algebra. Prerequisite: One unit of high school algebra.
Lower Division Courses

106. Introduction to Mathematics. (3). An introduction to the nature of mathematics, including the concept of number, the ideas of geometry, and the historical motivations for the development of mathematics. Not open to students with more than one unit of high school algebra. Does not apply on a degree in Liberal Arts for students initially entering the University after September 1, 1965.

121-122. Discrete Mathematics. (3-3). Set theory, probability, linear algebra, the elements of statistics, and related topics. Prerequisite: For 121, one and one half units of high school algebra or one unit of high school algebra and concurrent enrollment in Math. 70. For 122, 121 and one unit of high school geometry.

141. Algebra and Trigonometry. (5). Functions, theory of equations and inequalities, complex numbers, the trigonometric functions, exponential and logarithmic functions, and other standard topics prerequisite to a beginning study of analysis. Prerequisite: One and one-half units of high school algebra and one unit of high school geometry and a satisfactory score on the departmental placement exam.

142. Introductory Analysis I. (5). Analytic geometry and the Calculus in an inter-related form. Prerequisite: Math. 141 with a C or better.

151-152. Honors Analysis I and II. (3-3). An introductory study of mathematical analysis. Prerequisite: Honors standing and 141 or high school equivalent, or consent.

243-244. Introductory Analysis II and III. (4-4). The continuation of Math. 142. Includes integration, linear algebra, multiple integration, elementary differential equations, and a survey of elementary function theory. Prerequisite: Math. 142 or 152 with a C or better. For 244, a C or better in 243.

245. Survey of Analysis. (3). A brief but careful introduction to mathematical analysis intended for students of the other humanities and the social sciences. Prerequisite: Math. 122 with a C or better. Credit in both 245 and 142 is not allowed.

246. Calculus. (5). A continuation of Math. 245 designed to complete a study of elementary mathematical analysis. May be used in place of 243 in meeting prerequisites for other courses. Prerequisite: Math. 245 and consent.

251-252. Honors Analysis III and IV. (3-3). 251 completes the materials of 243-245 and 246 and may be used as the prerequisite to 244 in meeting prerequisites. 252 includes additional topics from analysis and linear algebra. Prerequisite: 152 with B or better, or equivalent high school preparation, or consent.

Upper Division Courses

303-304. Topics in Modern Mathematics. (3-3). An investigation of the newer topics in the secondary school curriculums. Prerequisite: Consent of department.

311. Elementary Geometry. (3). The structure of Euclidean geometry. Prerequisite: Math. 243 or 245.

313-314. Fundamental Concepts of Algebra I and II. (3-3). Groups, rings, fields, linear spaces and linear algebras. Prerequisite: Math. 243 or 245; or consent of department.

315. Elementary Number Theory. (3). The properties of the integers studied by elementary means. Prerequisite: Math. 245 or upper division standing; or Math. 244; or consent of department. Formerly Math 415.

335-336. Intermediate Analysis I and II. (4-4). A detailed study of limits, continuity, the Riemann integral, the calculus of functions of "several variables," line and surface integrals. Prerequisite: Math. 244 with a C or better. For 336, a C or better in 335.

349. Applied Analysis I. (3). Differential equations, Laplace transforms, and numerical methods. Prerequisite: Math. 244 with a C or better. Credit in both 349 and 246 is not allowed.

373-374. Elementary Mathematics. (3-3). Topics necessary to an understanding of the elementary school curriculum, such as set theory, the real numbers, and geometry. Prerequisite: Elementary education major or consent of department.

380. Introduction to Computer Science. (3). The arithmetic and logic of computers. Prerequisite: Math. 243 or 245, or consent of department.

494. Matrix Algebra. (3). Fundamental theory and applications. Prerequisite: Math. 245 and upper division standing; or Math. 142 and upper division standing; or consent of department. Not open to students with credit in Math. 314.

495. Elementary Algebraic Structures. (3). Various topics selected from Boolean algebras, graph theory, partially ordered sets, combinatorial algebra, and other special algebraic systems. Prerequisite: Math. 313 with C or better.

412. Modern Geometry. (3). Fundamental concepts. Prerequisite: Math. 313 or consent of department.

416. Topics in Number Theory. (3). Prerequisite: Math. 315 and consent.

437. Elementary Topology. (3). Primarily the topology of metric spaces. Prerequisite: Math. 335 with a C or better, or consent of department.

438. Introduction to Complex Analysis. (3). A basic treatment of analytic functions. Prerequisite: Math. 335 or 450 with a C or better in prerequisite course, or consent of department.

446. Differential Equations. (3). Includes existence theory. Prerequisite: Math. 335 with a C or better, or consent of department. Credit in both 349 and 446 is not allowed.

450. Applied Analysis II. (3). Advanced Calculus from the applied viewpoint. Prerequisite: Math. 349 with a C or better, or consent of department.

452. Numerical Analysis. (3). Prerequisite: Math. 335 or 450 with a C or better in prerequisite course, or consent of department.

471-472. Probability and Statistics. (3-3). A course in the theory of the subject. Prerequisite: Math. 244 and one of 313 or 335, with C or better.

490. Individual Projects. (1 to 5). May be repeated to a total of 10 credits. Prerequisite: Consent of department.

Graduate Courses


503-504. Abstract Algebra. (3-3). A treatment of the standard basic topics in abstract algebra. Prerequisite: Math. 613, or consent of department.

505-506. Complex Analysis. (3-3). The theory of analytic functions. Prerequisite: Consent of department.

507-508. Topology. (3-3). Point set and algebraic topology. Prerequisite: Consent of department.

520. Proseminar. (1). Required of all graduate majors in their first 12 months. Prerequisite: Major standing.

521-522. Individual Reading. (1 to 5-1 to 5). Prerequisite: Consent of department.

525. Special Topics. (2 or 3). May be repeated by consent.

549-550. Applied Analysis III and IV. (3-3). Basic complex analysis, ordinary and partial differential equations, and other standard topics in applications. Prerequisite: Math. 446 or 450 with C or better, or consent of department.

STATISTICS

The courses in statistics listed here are offered by the Mathematics Department. No major or minor is offered; however, a mathematics major with a statistics emphasis is available. For information, consult the Mathematics Department. Statistics courses are counted as mathematics for the purpose of all “maximum hour” limitations.

Non-Credit Courses
71. Statistics for Graduate Students. (0). SR. Elementary statistics for graduate students who need only a rudimentary knowledge of the subject.

Lower Division Courses
271-272. Elementary Statistics I and II. (3-3). In 271, elementary descriptive statistics; probability; binomial and normal distributions; elementary problems of statistical inference; linear correlation and regression. In 272, analysis of variance. Prerequisite: Math. 121 or 141. Not open to students with Math. 243 or 245 or to math majors.

Upper Division Courses
371-372. Statistical Methods I and II. (3-3). 2R; 2L. In 371, basic experimental statistics; problems of statistical inference; confidence limits; forms of correlation; and analysis of variance. In 372, sampling; additional analysis of variance; randomized block; Latin square; factorial; multiple and curvilinear correlation. Prerequisite: Math. 243 or 245.

MEDICAL TECHNOLOGY

Note: The courses in Medical Technology are offered by the School of Medical Technology, St. Francis Hospital, and by Wesley Hospital, Wichita, Kansas. For the complete curriculum in Medical Technology see page 43.

Upper Division Courses
401. Bacteriology. (3).
403. Parasitology. (3).
410. Mycology. (1).
412. Serology. (1).
420. Urinalysis. (2).
422. Hematology. (4).
430. Histological Technique. (4).
432. Blood Banking. (3).
440. Basal Metabolism and Electrocardiography. (1).

PHILOSOPHY

The Department of Philosophy offers coursework relative to four fields of concentration, around which a student can plan a program leading to an undergraduate or graduate degree in philosophy, in consultation with the major advisor and the head of the department.
(1) Metaphysics and Epistemology.
(2) Logic and Philosophy of Science.
(3) Ethics and Political Philosophy.
(4) History of Philosophy.

Major: A major requires a minimum of 24 semester hours of philosophy courses including Phil. 121 or Phil. 150 or equivalent, Phil. 225, Phil. 244, and at least 12 hours of upper division work in philosophy.

Minor: A minor consists of 15 hours of philosophy selected in consultation with the department, with the aim of orienting the student to the philosophic aspects of his major field.

Lower Division Courses
121. General Philosophy. (3). An introduction to the philosophic principles and methods employed in treating the problems of truth and validity, reality and appearance, and good and evil, by means of an analysis of the classical doctrines of the nature of things, the structure of knowledge, and the criteria for moral value.
150. Philosophy in the Twentieth Century. (3). An introduction to philosophy through the main currents of present-day thought.
225. Logic. (3). An introduction to the basic principles of rational thinking, with an emphasis on argument forms, deductive techniques, and methods of proof.
226. Philosophic Foundations of Scientific Method. (3). A study of the basic philosophic presuppositions of the scientific method, as exemplified in the problems of induction, deduction, hypothesis, evidence, probability, verification, definition, and experimental technique.
244. Ethics. (3). A comprehensive study of the classical and modern theories of social and moral value as they give meaning to the concepts of law, morality, tradition and social reality.
275. Aesthetics (3). A study of the various philosophic conceptions of the fine arts, and an analysis of the notions of imitation, imagination, expression, creativity, feeling, intuition and technique, as they relate to the aesthetic context of art, audience and the work of art.

Upper Division Courses
325. Symbolic Logic. (3). Symbolic techniques used in establishing basic logical principles in demonstrations and in constructing rigorous proofs.
326. Advanced Symbolic Logic. (3). A continuation of Philosophy 325, including areas such as the logic of relations, properties of formal deductive systems, identity and definite description, alternative notations, the theory of types, logical paradoxes, etc. Prerequisites: 325 or consent of the instructor.
331. History of Philosophy: Thales to Plotinus. (3). A study of the basic philosophic systems from the Pre-Socratic to the Hellenistic Period, with an emphasis on the works of Plato and Aristotle.
335. History of Philosophy: Hegel to Nietzsche. (3). A study of the later modern period, selected from such authors as Hegel, Fichte, Schelling, Schopenhauer, Kierkegaard, Peirce, James, and Nietzsche.
540. Epistemology. (3). A critical examination of the nature of knowledge and of the philosophical problems concerning skepticism, knowledge of the self, material objects, other minds, the past, present and future, universals, and necessary truths. Selections from both historical and recent writings. Prerequisite: Phil. 121 or equivalent.

345. Classical and Medieval Political Theory. (3). Same as Political Science 345. (See for description.)

350. Metaphysics. (3). An exploration of some basic topics in the theory of reality. Issues include such notions as space, time, substance, causality, particulars, universals, appearance, essence and being. Prerequisite: Phil. 121 or equivalent.

356. American Pragmatism. (3). An examination of the major philosophic movement of America, and its consequences in regard to the doctrines of behaviorism, operationalism, utilitarianism and democracy.

360. Ethical Theory. (3). A concentrated study of ethical theory in the context of certain fundamental ethical problems. Prerequisite: 121 or 244 or equivalent.

369. Existentialism. (3). An examination of the leading contemporary philosophic movement in Europe as expressed in the writings of Kierkegaard, Nietzsche, Schopenhauer, Heidegger, Sartre, Camus and Jaspers. Prerequisite: Phil. 121 or equivalent.

380. Phenomenology. (3). A study of the phenomenological movement in philosophy, with special attention to its source in Husserl; and an introduction to its recent developments in such thinkers as Scheler, Heidegger, Sartre, Merleau-Ponty, and Strauss. Prerequisite: 121 or equivalent.

404. Analytic Philosophy. (3). A critical examination of philosophic method and language as treated by the contemporary analytic movement in philosophy, as embodied in the "ordinary language" school and the logical positivists. Selections will be taken from the writings of Wittgenstein, Russell, Carnap, Ayer, Moore, Broad, Stevenson, Strawson, Ryle and others. Prerequisite: Philosophy 121 or equivalent.

420. Logical Theory. (3). A study of the views of selected philosophers such as Aristotle, Kant, Hegel, Peirce, Quine, Strawson and Veatch concerning the nature and function of logic and other selected problems in logical theory. Prerequisite: Philosophy 225 or 325, or consent of instructor.

425. Philosophy of Science. (3). Consideration of the presuppositions, results and limitations of the natural and social sciences; the relations among the sciences; the nature of the philosophic problems and scientific methods used.

430. Philosophy of Plato. (3). Survey of the Platonic writings with concentration on specific dialogues. Prerequisite: Phil. 121 or equivalent.

435. Philosophy of Aristotle. (3). Analysis of the Physics, Metaphysics, Categories, and other writings of Aristotle. Prerequisite: Phil. 121 or equivalent.

444. Modern Political Theory. (3). Same as Political Science 444. (See for description.)

447. Contemporary Political Theory. (3). Same as Political Science 447. (See for description.)

470. Philosophy of Immanuel Kant. (3). A study of Kant’s Critique of Pure Reason. Prerequisite: Phil. 121 or equivalent.

490. Special Studies. (3). The instructor will announce the topic for study. May be repeated for credit. Prerequisite: Consent of the instructor.

499. Directed Readings. (1-3). A course designed for the student interested in doing independent study and research in a special area of interest. Prerequisite: Departmental consent. May be repeated for credit.

Graduate Courses

500. Seminar. (3).


502. Problems in Metaphysics. (3). An analysis of the nature of reality, the inter-relation of things, matter, form, essence, existence, space, time, causality, and chance. Prerequisite: Departmental consent.

503. Mathematical Logic. (3). Elementary set theory; Boolean algebra; sentential calculus; quantification theory; axiom systems. Prerequisite: Department consent.

506. Problems in Ethical Theory. (3). An examination of moral and social ideals and such concepts as "good," "right," and "ought" in relation to the doctrines of naturalism, utilitarianism, intuitionism, hedonism and emotivism. Prerequisite: Department consent.


PHYSICS

Major: The following courses are required for a physics major: General College Physics (123-124 or 243-244), 311, 333-334, 339-340, and 454, Math 450, and one semester of Chemistry. For a Bachelor of Arts degree, one upper division physics laboratory course and three additional hours of physics are required. For a Bachelor of Science degree, three upper division physics laboratory courses and eight additional hours of Physics are required. Also required for the Bachelor of Science degree is a reading knowledge, or two semesters, of German, Russian, or French.

Minor: A minor in Physics consists of General College Physics (123-124 or 243-244) and at least six additional hours of physics.

Lower Division Courses

123-124. General College Physics. (5-5). 4R; 3L. First semester: Mechanics, heat and sound. Second semester: Electricity, light, and modern physics. Intended for students who have a working knowledge of algebra and trigonometry but who have had no calculus. Prerequisite for 123: High school trigonometry or Math 141. Prerequisite for 124: Physics 123 or 243.

225. Topics in Classical Physics. (2). Prerequisite: Physics 124 or 244. Corequisite: Math 142, or 251.

243-244. General College Physics. (5-5). 4R; 3L. Intended for students who have had a semester of calculus. First semester: Mechanics and heat. Second semester: Electricity and light. Corequisite for 243: Math 243, or 252. Prerequisite for 244: Either Physics 243 or 123, and a grade of C or better in one of the following courses: Math 243, or Math 252.

243(E)-244(E). General College Physics Lectures. (4-4). 4R; 0L. The lecture portion of General College Physics 243-244. Open only to engineering students.

Upper Division Courses

300. Seminar. (1). Student reports on topics of general interest in physics. May be repeated for credit up to two hours. May not be counted for credit toward a minor in physics. Prerequisite: Completion of, or concurrent enrollment in an upper division physics course, and consent of instructor.

311. Topics in Modern Physics. (3). An introduction to selected areas of modern physics with emphasis on the features of atomic, nuclear, and solid state physics which require modifications of classical physics for their explanation. Prerequisite: Physics 124 or 244. Corequisite: Math 244 or 252.
320 & 321. Classical Physics Laboratory. (1-1). 3L. An intermediate laboratory with experiments drawn from the following areas of classical physics: Mechanics, optics, electricity and magnetism. Corequisites: Physics 335 or 345.

333-334. Electricity and Magnetism. (3-3). Direct and alternating currents; electric and magnetic field theory including an introduction to Maxwell's electromagnetic wave theory. Prerequisite for 333: Physics 124 or 244 with grade of C or better, and Math 244 or 252 with a grade of C or better.

339-340. Elementary Mechanics. (3-3). Motion of a particle in one and several dimensions; motion of systems of particles; motion of rigid bodies; moving coordinate systems, mechanics of continuous media, and the Lagrangian Equations of Motion. Prerequisite for 339: Physics 124 or 244 with grade of C or better, and Math 244 or 252 with a grade of C or better. Prerequisite for 340: Physics 339.

345. Physical Optics. (3). Electromagnetic waves, diffraction and interference, radiation, scattering, and optical properties of solids. Prerequisite: Physics 124 or 244 and Math 244 or 252.

350. Thermodynamics. (3). The laws of thermodynamics; thermodynamic potentials and applications; distribution functions; Boltzmann equation, transport phenomena and fluctuations; introduction to statistical mechanics. Prerequisite: Physics 124 or 244 and Math 244 or 252.

590. Special Studies in Physics. (1 or 2). May be repeated, but total credit may not exceed two hours. Prerequisite: Department consent.

421 & 422. Modern Physics Laboratory. (1-1). 3L. An advanced laboratory with experiments drawn from various areas of modern physics. In 421, the emphasis is on a determination of the fundamental constants of physics. In 422, the emphasis is on experiments in nuclear physics. Prerequisite for each course: Physics 311, and 320 or 321.

425. Electronics. (2). 1R; 4L. Provides a working knowledge of electronic devices and circuits for the student or research worker who has little or no background in electronics. Prerequisite: Consent of instructor.


460. Introduction to Theoretical Physics. (3). Techniques of mathematical physics and their application to boundary value problems in mechanics, electricity and magnetism, wave motion, etc. Prerequisites: Physics 334, 340; Math 349.

Graduate Courses


512. Elementary Statistical Mechanics. (3). An introduction to the basic concepts and methods of statistical mechanics with applications to simple physical systems. Prerequisite: Math 349; Physics 340.

515-516. Introduction to Solid State Physics. (3-3). The basic knowledge of the nature and properties of the solid state including the structural, thermal, mechanical, electrical, and magnetic properties. Electron theory of metals, band theory of solids. Prerequisite: Physics 311, or department consent, and Math 349.

521. Individual Readings. (1 to 3). Prerequisite: 30 hours of physics and department consent. May be repeated for credit up to three hours.

529. Selected Topics in Physics. (2 or 3). May be repeated for credit up to six hours. Prerequisite: Department consent.

533-534. Elementary Quantum Mechanics. (3-3). Elementary principles, formulations, and methods of quantum mechanics with special application to atomic and molecular phenomena. Prerequisite: Physics 340 and 454 or department consent, and Math 349 and 450.

535-536. Classical Electricity and Magnetism. (3-3). Vector fields, field equations, stress and energy, static magnetic and electric fields, electromagnetic waves. Prerequisite: Physics 334 and Math 349.

537-538. Nuclear Physics. (3-3). The nuclear two-body problem; interaction of nuclear forces, models of the nucleus, nuclear decay, theory of nuclear reactions, and strange particles. Prerequisite: Physics 455.

550. Seminar. (1). Review of current periodicals. Reports on student and faculty research. May be repeated for credit up to two hours. Prerequisite: 20 hours of physics.

551. Research and Thesis. (1-3). May be repeated for credit up to six hours.

* Credit will not be given for both 123 and 243 or both 124 and 244.

POLICE SCIENCE

The courses in police science are given by officers of the Wichita Police Department, the Legal Department of the City of Wichita, and the University faculty. The prerequisite for enrollment in any police science course is consent of the Chief of Police and the Dean of University College.

MINOR: The minor consists of 21 hours in Police Science. (See course offerings listed under University College.)

POLITICAL SCIENCE

MAJOR: A major consists of 30 hours. Requirements are as follows: Pol. Sci. 100 or 201, 345 or 444, 445; 3 hours each from Groups 2, 3, 4, and 5; and enough additional hours to complete the 30-hour major requirement. (Note: Pol. Sci. 121 or 211, but not both, may count toward a major.)

MINOR: A minor consists of Pol. Sci. 100 or 201; 3 hours from Group 1; and 9 additional hours, 6 of which must be upper division.


(3) (Comparative Government) 227, 228, 229, 330, 331, 420, 461, 462.

(4) (International Relations) 335, 336, 433, 434, 436, 463.

(5) (Public Administration) 321, 322, 441, 473, 474, 450.

(6) (Special Courses) 150, 303, 400, 450, 499.

Lower Division Courses

100. Patterns of Politics. (3). An analysis of basic patterns of political systems and political behavior. Designed for the general student whether or not he desires to take advanced work in Political Science.

121. American Government. (3). The basic principles, structure and functions of government in our national society. (Formerly offered as Pol. Sci. 221.)

150. Workshop. (1-4). Prerequisite: Consent of instructor.

211. American Democracy. (3). Currents in the development of American democracy with emphasis on the ideas and ideals which have contributed to the development of Americanism and the literature which deals with these currents of thought. Prerequisite: Sophomore standing.
227 & 228. Comparative Government. (3). First semester: Great Britain and France; social, political, economic, and religious forces and their effects. Second semester: Germany and the USSR; their development, and the nature of the Soviet state since 1917. (Formerly offered as Pol. Sci. 311-312.) Prerequisite: Sophomore standing.

229. Government and Politics in Asia. (3). The breakdown of the "colonial" systems during and after World War II. Japan, China, India, Southeast Asia, Southwest Asia. Continuing political instability in Asia. Prerequisite: Sophomore standing.

Upper Division Courses

Pol. Sci. 100 or 201 is a prerequisite for all upper division courses except 303, 345, 400, 441, 444, 450 and 453.

303. Parliamentary Law and Procedure. (1). The Parliamentary rules governing the order and conduct of meetings, methods of keeping and the writing of minutes and resolutions.

315-316. The Presidency, Congress, and Public Policy. (3-3). A descriptive and analytical study of the roles and interrelationships of the President, Congress, the bureaucracy, political parties, and interest groups in the formation and execution of public policy. Credit given upon completion of the year course only.

318. Political Parties. (3). The role of political parties in the American, political, decision-making process at the national, state and local levels.

319. State Government. (3). The role of the states in the federal system, and the patterns of politics and institutions in the several states. Particular attention to the State of Kansas.

321-322. Introduction to Public Administration. (3-3). A general survey of the scope and nature of public administration; policy and administration administrative regulation and adjudication; organization and management; budgeting and fiscal management; public personnel administration; political, judicial, and other controls over the administration.


331. Soviet Politics and Government. (3). The social structure of the U.S.S.R.; federalism and the nationalities; industry, agriculture, trade unions, and cooperatives; policy making organs; church and state; courts and prosecutors; factors of stability and instability; political power. Prerequisite: Pol. Sci. 390.

335 & 336. International Politics and Institutions. (3-3). First semester: an analysis of the controls governing the national state system; special consideration of such concepts as balance of power, collective security, propaganda and diplomacy. Second semester: Emphasis on international law and the development of international organizations. Either 335 or 336, but not both, will be accepted toward a major in history.

345. Classical and Medieval Political Theory. (3). An analytical study of the major offerings of the Greek, Roman, and Feudal Periods. The contributions of Plato, Aristotle, and the Stoics are emphasized in the early period; the works of Seneca, Cicero, and the Roman Lawyers during the second; and the juridical impact of the feudal system and the philosophic legacy of the ecclesiastical writers during the third. (Formerly offered as Pol. Sci. 343 & 344.)

400. Seminar in Social Sciences. (3). An interdisciplinary course participated in by staff representatives of the departments of Economics, Political Science, Psychology, and Sociology. Following a study of the development of the social sciences, an interdisciplinary analysis of a contemporary social problem or institution will be undertaken. Prerequisite: Consent of instructor.

420. Politics of Developing Areas. (3). A survey of the political systems in Latin America, Africa, the Middle East, South and Southeast Asia. Special attention to colonialism as a system, the effects of colonialism and patterns of emerging nations.

433. Policy Development in Foreign Relations. (3). The process of foreign policy-making in the American structure of government. Particular attention will be given to the problems of federalism and separation of powers in foreign policy development.

434. Problems in Foreign Policy. (3). Analysis of the alternative courses of action open to the United States in the present international political system.

436. Soviet Foreign Policy. (3). The concept, content, and control of Soviet foreign relations; instruments and tools of Soviet diplomacy; "strategy and tactics"; change and continuity from Russian to Soviet foreign relations and policy aims; execution of foreign policy in selected areas. Prerequisite: Pol. Sci. 335 or 336.

441. Municipal Government and Administration. (3). The development and status of American municipal corporations; the various municipal units (cities, school districts, and others); governmental relations; contemporary urban and metropolitan problems of government and administration.

444. Modern Political Theory. (3). A description and analysis of the works of the principal political theorists of the modern state. Beginning with Machiavelli, the most persistent problems of early and modern nationalism are examined through the writings of Hobbes, Locke, Rousseau, Hegel, Burke, Marx, and others.

445. Seminar for Graduating Majors. (3). Discussion of significant classical and contemporary works in political science. Prerequisite: Senior standing.

446. Seminar on Comparative Marxism. (3). An examination and evaluation of the ideas which have helped to shape the "ideologies" of the various party-states. The contributions of Marx, Engels, Kantsky, Bernstein, Luxemburg, Lenin, Trotsky, Stalin, Mao, Kruschchev, Tito, Togliatti, etc. Prerequisite: Pol. Sci. 444 or department consent.


449. Scope and Method of Political Science. (3). Scope and methods of political science and research techniques designed to prepare the student for either graduate work in political science or administrative research. (Note: This course may be substituted for Pol. Sci. 445 with the consent of the department head.) Prerequisite: Senior standing.

450. Workshop. (1-4). Prerequisite: Consent of instructor.

451. Constitutional Law. (3). The course will utilize the case method and is concerned principally with the important and unique role of the Supreme Court as a policy-making body in the American system of government. Emphasis is placed on cases dealing with the separation of powers, federal system, and civil rights and liberties. (Not open to students with credit in Pol. Sci. 351 or 352.)

453. Law and Society. (3). An analysis of our legal system in operation, includes study of legal philosophy and the ends of law, the basic characteristics and subject matter of law, and legal reasoning and process. The role of the legal system in society is examined through study of the concept of freedom of contract. (Note: Not open to students with prior credits in business law.)

454. The Judicial Process. (3). Focuses upon the behavior and policy-making role of the courts in the American system. Selected areas of case law are utilized to illustrate important aspects and problems of the judicial process. (Supplements P.S. 451.)
457. Problems in Political Theory. (3). Based on the rich inheritance of the political thought of ancient, medieval, and modern political philosophers, this course will consider significant political problems confronting twentieth century man. Prerequisite: Pol. Sci. 345 and 444.

458. American Political Thought. (3). Consideration of selected topics in the development of political ideas in the United States.

459. Problems in American Politics. (3). Consideration of selected topics in American political behavior and institutions. Students may select individual study topics drawn from local, state or national experience. Prerequisite: Department consent.

461 & 462. Problems of Comparative Politics. (3-3). Selected problems, according to students' interests and backgrounds. The experiences of the United States and leading Western European nations will be utilized; but where appropriate, non-Western experience also will be considered. Prerequisite: Pol. Sci. 227-228.

463. Problems in International Relations. (3). An investigation of major conflicts between nations. The course will include consideration of the background and results of policy decisions affecting international relations. Prerequisite: four hours in Group IV.

473 & 474. Seminar: Current Problems in Public Administration. (3-3). Problems of contemporary public administration with emphasis on effective citizenship. Readings and field contacts. Prerequisite: Department consent.

480. Government Administration and Public Policy. (3). The problems of government encountered in the administration of public policy. The approach will be analytical rather than descriptive. Prerequisite: Pol. Sci. 321, or consent of instructor.

499. Directed Readings. (2 or 3). A course designed for the exceptional student to meet his needs and deficiencies. May be repeated for credit. Prerequisite: Senior standing and consent.

Graduate Courses

University 500. Interdisciplinary Seminar in Urbanization. (3). An interdisciplinary seminar in the analysis of urban problems; co-sponsored by the departments of Political Science, Administration, Economics, Sociology, and Teacher Education. This is a two-semester course; credit is given upon completion of the second semester.

500. Advanced Directed Readings. (1 to 3). Prerequisite: department consent. May be repeated for credit.

501. Introduction to Research in the Social Sciences. (3). Philosophy of research, collection and organization of material, and technique and style in writing, with emphasis on the common approach of the social sciences. Prerequisite: Department consent.

510. Seminar in Comparative Government. (3). The comparative study of selected aspects of the politics and institutions of foreign governments. Prerequisite: Department consent.

520. Seminar: The Administrative Process. (3). Consideration of the process and environment of administration, with special attention being given the role of the executive in policy formulation, organization, planning, budgeting, staffing, coordination, communications, and administrative responsibility. Prerequisite: Department consent.

521. The Budgetary Process. (3). Analysis of the development and utilization of the budgetary process in government administration, with special attention given to the budget in relation to its role in policy formulation. Prerequisite: Department consent.

535. Seminar in International Relations. (3). Analysis of special problems in, and approaches to, the study of international relations. Prerequisite: Department consent.

537. Problems of Soviet Government—Seminar. (3). Student will select one major problem area, research its political implications (stability and control) in the U.S.S.R. Prerequisite: Department consent.

541. Seminar in Local Government. (3). An analysis of the organization, functions, and processes of municipal, county, school and voluntary organs; original research and intensive study of particular problems of Greater Wichita or other communities or urban units. Prerequisite: Department consent.

544 & 545. Seminar in Political Theory. (3-3). Selected problems in the theory and practice of democracy. Prerequisite: Department consent.

556. Seminar in American Politics and Institutions. (3). Analytical study, with emphasis on individual research, of selected topics in American political behavior. Prerequisite: Department consent.

574. Internship. (2). For selected graduate students whose graduate emphasis is public administration. Prerequisite: Department consent.


* Prerequisite may be waived by department consent.

PSYCHOLOGY

Major: The major consists of a minimum of 24 hours and a maximum of 36 hours. Psych. 111 is a prerequisite for all other courses. All Majors are required to take Psych. 111, 112, 211, and 212. Students who expect to enter graduate work in psychology should take Psych. 342 and 343. Other courses should be selected with the aid of the adviser. The minor for students majoring in Psychology will be required at the discretion of the adviser.

Minor: The minor consists of 15 hours and should be fitted to the individual needs with the help of the student's adviser.

Non-Credit Course

60. Reading Improvement Techniques. (0) 2L. Designed for those students who seek to improve reading skills. Reading and study habits are diagnosed and practice toward improvement is provided. Prerequisite: Approval of instructor.

Lower Division Courses

111. General Psychology. (3). An introduction to the general principles and areas of psychology.

112. General Psychology Laboratory. (2). 4L. Introduction to scientific method in psychology. Prerequisite: Psych. 111; concurrent enrollment preferred.

211 & 212. Advanced General Psychology. (3-3). A more intensive treatment of the topics of General Psychology. Prerequisite: Psych. 111.


246. Social Psychology. (3). A psychological study of the individual in the social situation. Prerequisite: Psych. 111.

260. Child Psychology. (3). The infant and child with special reference to their behavioral development. Prerequisite: Psych. 111.

275. Psychology of Personality. (3). Theoretical concepts, factors in development, and methods of assessing personality. Prerequisite: Psych. 111.
Upper Division Courses

342. Psychological Statistics. (3). Emphasizes basic quantitative techniques in measurement and evaluation of behavior. Prerequisite: Psych. 112, Math. 121 & 122 or Math. 141, or consent of instructor.

343. Experimental Psychology. (3). Laboratory study of behavior stressing experimental design and research techniques. Prerequisite: Psych. 112, and 542.

346. Advanced Social Psychology. (3). An intensive review of a selected contemporary issue in social psychology. Prerequisite: Psych. 246 and consent of instructor.

350. Physiological Psychology. (3). Physiological factors in behavior. Prerequisite: Psych. 211.

360. Psychology Tutorial. (3). Selected topics in psychology. (May be repeated for a maximum of 6 hours credit.) Prerequisite: Average of B in psychology courses which must include Psych. 211 and 212 and consent of instructor.

401. Introduction to Clinical Psychology. (3). (Same as SPC 440). Application of psychological principles to the field of problem behavior. Prerequisite: Psychology 275, 444, and 465.

410. History of Psychology. (3). Psychological theory and experimentation from ancient to modern times. Prerequisite: 10 hours of Psychology.

444. Introduction to Psychotherapy. (3). Individual differences and their relation to "normal" behavior. Prerequisite: Psych. 111.

450. Advanced Industrial Psychology. (3). A detailed analysis of special-interest areas in industrial psychology. Prerequisites: Psych. 215 and 342, or consent of instructor.

454. Psychological Testing and Measurement. (3). A survey of the psychological foundation of tests and the interpretation and evaluation of test findings. Prerequisite: Psych. 112, 212, 342 or consent of instructor.

456. Special Investigation. (1-3). Upon consultation with the instructor concerned, advanced students with adequate preparation may undertake original research in psychological problems. (May be repeated for a maximum of 6 hours credit.) Prerequisite: 10 hours of Psychology and consent of instructor.


498. Introduction to Psychoanalytic Theory. (3). A consideration of the theory and practice of Freud's system, its variants and derivatives. Prerequisite: Psych. 444.

Graduate Courses

502. Seminar in Clinical Psychology. (2). Individual papers and discussion aimed at a basic orientation toward clinical theory and practice. Prerequisite: Psych. 401 and consent of instructor.

513. Intelligence Testing. (3). Theory and method of individual intelligence tests. Prerequisite: Consent of instructor.

514. Projective Techniques I. (3). Introduction to diagnostic procedure, including theory of projectives, interviewing techniques, self-report inventories, and Rorschach. Credit contingent upon completion of Psych. 554. Prerequisite: Consent of instructor.

515-516. Clinical Practice. (2-2). Practicums in clinical techniques. May be repeated for various phases of clinical practice. Maximum credit 6 hours. Prerequisite: Consent of instructor.

520. Graduate Research Seminar. (3). Advanced experimental procedures. Required of all graduate majors in psychology. Prerequisite: Consent of instructor.

524. Projective Techniques II. (3). Interpretation of projective techniques, including Rorschach, TAT. Prerequisite: Psych. 514.

542. Advanced Psychological Measurement. (3). Design, analysis, and evaluation of behavioral data. Required of all graduate majors in psychology. Prerequisite: Consent of instructor.

549 & 550. Seminar in Psychology. (3-3). Intensive survey of major areas in psychology with stress on recent developments. Required of all graduate majors in psychology. Consent of instructor.

560. Systematic Psychology. (3). A critical survey of systems of psychology. Prerequisite: Consent of instructor.


* With sufficient reason a student may apply for departmental consent to waive course prerequisite.

RELIgIOUS EDUCATION

The department of religious education offers a general survey of religious life and thought, of Biblical history and literature, and their significance in the life of today. The courses in this department are not primarily professional in character. Religion is recognized as one of the great phenomena of human life, and religious literatures are studied for the light they shed on political and social movements and as cultural background.

MAJOR: The primary goal of the Department of Religious Education is to help students reach a better understanding of the role of religion in human culture and experience. Therefore, it is by design that the department offers a "combined major" consisting of no less than 24 hours; 15 in Religious Education and 9 in a related field. Religious Education 333, 446, and 475 are required.

Of the 12 upper division hours required in the major field at least 9 must be in Religious Education.

MINOR: The minor consists of 15 hours in Religious Education courses, chosen in consultation with the head of the department.

Lower Division Courses


130. Introduction to Religion. (3). Designed to acquaint the introductory student with some major varieties of religious history, belief, practice and problems, Eastern and Western, with emphasis on the West. Closed to upper division students.

230. Old Testament Interpretation. (2). An attempt to understand the people and the problems of the Old Testament. Emphasis will be on the Pentateuch, the prophets, and an understanding of major Biblical concepts.

240. New Testament Interpretation. (2). The letters of Paul, the Johannine literature and history outside the Synoptic Gospels will be emphasized. Such major Biblical concepts as sin, grace, savior, church, will be examined critically in terms of the Biblical text.

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260. Western Religious Thought. (3). An historical and critical study of the major currents of thought in the West. Emphasis will be on primary forces and personalities which gave background shape and development to the Hebrew-Christian tradition.

Upper Division Courses

301-302. Ancient Mediterranean World. (3). (Same as History 301-302.)

305. New Testament Greek. (2). (Same as Greek 332.)

323 & 324. Medieval History. (3-3). (Same as History 323-324.)

333. Comparative Religion. (3). A rapid survey of the religious experiences of people in their efforts to secure and conserve the essential values of life.

336. History of Religions 1. (3). Emphasis on historical insights useful for understanding religion in its cultural setting and the development of major religious concepts.

337. History of Religions 2. (3). Continuation of 336, 1.

346. Current Religious Issues. (2). Emphasis will be on important questions which affect the American scene such as the ecumenical movement, recent court decisions, varieties of current religious dissent, protest, relevance.

360. Religious Thought in the 19th and 20th Century. (3). A study through the writings of representative thinkers of major trends, developments and movements such as the Social Gospel, Modernist-Fundamentalist Controversy, the Ecumenical Movement, “the Catholic-Protestant dialogue.”

399. The Bible as Literature. (3). (Same as English 399.)

424. Reformation. (2). (Same as History 424.)

446. Philosophy of Religion. (3). An examination of some basic religious problems such as the nature and grounds of religious belief, religious language, the existence and nature of God, human immortality, the problem of evil.

466. Biblical Ethics and Social Problems. (3). An examination of ways in which the Bible has been read for insight into moral problems in contemporary society. The writings of social analysts, theologians and various religious bodies will be read. Problem areas of special concern will be marriage and family, economic life, politics, race relations, international relations.

475. Independent Work. (1-3). Especially designed for those working for a combined major. A major project relating the work of two departments is required.

Graduate Courses

500. Seminar. (3).


SOCIOLOGY AND ANTHROPOLOGY

Major: A major in sociology and anthropology consists of at least 30 hours, including Soc. 111, Anthro. 124 plus one of the following: Soc. 445, Soc. 446 or Anthro. 447. Other courses may be elected from either sociology or anthropology curriculum. Certain courses in related departments not to exceed 6 hours, when they meet the particular needs of the student, may be counted on the major. With the exception of S.W. 211, social work courses do not count toward the major.

Students wishing to secure a minor in the Department should elect one of the following fields:

Minor in Sociology and Anthropology: At least 15 hours in the two fields, including Soc. 111 and Anthro. 124.

Minor in Anthropology: At least 15 hours of anthropology including Anthro. 124 and 125.

Minor in Sociology: At least 15 hours including Soc. 111.

SOCIOLOGY

Lower Division Courses

111. Introductory Sociology. (3). Human group life, man’s adjustment in groups, the characteristics of various groups, the processes of social organization and social change.

210* Sociology of Childhood. (2). Group influences upon the child in contemporary American culture and their implications for society. Prerequisite: Soc. 111.

213* Sociology of Aging. (2). Social aspects of an aging population, including extent of social participation and various community programs for the aging. Prerequisite: Soc. 111.

222. Problems of American Society. (3). The analysis of social conditions related to personal and social maladjustment in American Society. Prerequisite: Soc. 111.

226. Race Relations. (3). The nature of races; ethnic groups confused with races; interrelations of ethnic groups in the United States and other countries; processes of change; action programs. Prerequisite: Soc. 111.

Upper Division Courses

314* Comparative Family Systems. (3). Ethnographic and historical studies of family systems: range of variation; vestiges of older systems in contemporary United States. Prerequisite: Soc. 111.

315. The American Family. (3). Analysis of American family behavior including the selection of marriage partners, the husband-wife, parent-child relationships, and the relation of those patterns of behavior to other aspects of American Society. Prerequisite: Soc. 111.

320. Social Behavior and Control. (3). The meaning of social control, the means of social control, social institutions as agents of social control, propaganda, public opinion, and mass media of communication. Prerequisite: Soc. 111.

321. Sociology of Religion. (3). The function and role of religious beliefs and religious organization in human societies with special reference to American society. Relation of religious beliefs and organization to other aspects of the social structure and to social change. Prerequisite: Soc. 111 or Anthro. 124.

326. Social Foundations of Political Behavior. (3). Social and cultural factors in the determination of political behavior. The analysis of political influence in terms of informal social contact, local leadership, and the mass media. Prerequisite: Soc. 111.

330. Social Stratification. (2). An analysis of status, class, and caste in various societies, especially American society. The relationship of stratification to the various social institutions. Prerequisite: Soc. 111 or Anthro. 125.


362. Urban Sociology. (3). The sociology of urban life—its social structures, institutions, and social relations. Prerequisite: Soc. 111.

354. Urban Sociology. (3). Urban population, urban organization, urban institutions, and programs of city planning. Prerequisite: Soc. 111.

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335. Industrial Sociology. (3). The work group as a social group, social organization of the work plant, and social factors affecting the worker. Prerequisite: Soc. 111.

338. Medical Sociology. (2). An analysis of social and cultural factors related to physical and mental illness; the dynamics of communication and role relationships among patients and medical personnel; and social research and theory relevant to the health professions. Prerequisite: Soc. 111.


340. Criminology. (3). The extent and nature of criminal behavior and societal reactions to it. Prerequisite: Soc. 111.

341. Contemporary Corrections. (3). Historical and contemporary programs for the treatment of offenders, viewed as societal reactions to criminal behavior. Prerequisite: Soc. 339 or 340.

400. Seminar in Social Sciences. (3). An interdisciplinary course participated in by staff representatives of the departments of Economics, Political Science, Psychology, and Sociology. Following a study of the development of the social sciences, an interdisciplinary analysis of a contemporary social problem or institution will be undertaken. Prerequisite: Consent of instructor.

410. Introduction to Scientific Method in Sociology. (3). The development of the problem, techniques of data collection, analysis and presentation. Lab work in the form of a completed project required. Prerequisite: 5 hours of Sociology.

425. Sociology of Small Groups. (3). Patterns of interaction in small groups, including leadership, decision making, formal and informal structures, morale and the function of organization. Prerequisite: Soc. 111.

445. History of Social Thought. (3). Social theory from ancient to modern times. Prerequisite: 8 hours of sociology.

446. Principles and Concepts of Sociology. (3). Critical evaluation of major principles and concepts, their derivation and relationship to systematic theory. Prerequisite: 8 hours of sociology.

470. Independent Reading. (1 to 3). Prerequisite: 12 hours of sociology and department consent. May be repeated for credit not to exceed a total of 6 hours.

Graduate Courses

University 500. Interdisciplinary Seminar in Urbanization. (3). An interdisciplinary seminar in the analysis of urban problems; co-sponsored by the departments of Political Science, Administration, Economics, Sociology, and Teacher Education. This is a two-semester course; credit is given upon completion of the second semester.

500. Research Methods in Sociology. (2 or 3). The application of research methods to sociological data. Includes research design, collection of data, development of questionnaires, schedules and scales, interviewing methods, analysis of data, and summary. Prerequisite: Soc. 310 and department consent.

512. Social Disorganization. (2). Changing frames of reference in study of social problems, with special attention to disorganization of groups and institutions. Prerequisite: Soc. 222 and department consent.


515. Seminar on the Family. (2). Review of recent research on the family and the theoretical implication thereof. Prerequisite: Soc. 315 and department consent.

520. Seminar in Social Movements. (2). Analysis of the elements in social movements as factors in social and cultural change. Prerequisite: Soc. 520 and department consent.

526. Intergroup Relations. (3). Relations between various types of groups, especially ethnic and religious. Review of relevant research. Prerequisite: Soc. 220 and department consent.


534. Seminar in Urban Sociology. (1 to 3). Studies of urban life with application to general theories of urban sociology. Prerequisite: Soc. 334 and department consent.

545. Advanced Reading in Sociological Theory. (3). A careful and critical evaluation of recent systematic writings in the field. Prerequisite: Soc. 445 and 446 and department consent.

547. Recent Developments in Sociology. (3). Major issues, new theories, new techniques of research, new areas of research, new applications. Prerequisite: 15 hours of Sociology and department consent.

570. Independent Reading. (2). Advanced systematic reading in a topical area under the supervision of a member of the graduate faculty. May be repeated for credit not to exceed a total of 4 hours. Prerequisite: Consent of department.

575-576. Thesis. (2-2). *Prerequisite may be waived by department consent.

ANTHROPOLOGY

Lower Division Courses

124. General Anthropology. (3). An introduction to the fields of physical anthropology, cultural anthropology, archaeology and linguistics, analysis of the concepts of society and culture with special emphasis on nonliterate peoples of the world.

125. Cultural Anthropology. (3). The meaning of culture, its significance for human beings, its diverse forms among peoples of the world, past and present. Prerequisite: Soc. 111 or Anthro. 124.

223. The Development of Man. (3). The study of man's biological development from prehistoric to modern times. Prerequisite: Anthro. 124.

224. Old World Prehistory. (2). The development of culture and society from early Paleolithic times through the rise of Bronze Age civilizations. Prerequisite: Anthro. 124.

227. Social Institutions of Primitive Society. (3). A cross cultural study of social, political, economic, and religious structures in primitive society. Prerequisite: Anthro. 124 or 125.

Upper Division Courses

306. Peoples of the Pacific. (2). A survey of the races, languages, and cultures of nonliterate peoples of Polynesia, Micronesia, Melanesia, and Indonesia. Prerequisite: Anthro. 124 or 125.

387. The Negro in Africa. (2). A description and analysis of the culture areas of Africa south of the Sahara. Prerequisite: Anthro. 124 or 125.

308. High Cultures of Central and South America. (2). A cultural survey of the Aztec, Maya and Inca Indian civilizations. Prerequisite: Anthro. 124.

309. Indians of the Eastern United States. (3). A survey of the cultures of aboriginal peoples east of the Mississippi River. Prerequisite: Anthro. 124 or 125.

310. Indians of the West. (3). A survey of the cultures of aboriginal peoples of the Great Plains, Southwest, and Pacific Coast areas. Prerequisite: Anthro. 124 or 125.

318. Culture and Personality. (3). The relationship of individual personality, both normal and abnormal, to group membership and cultural configuration. Prerequisite: Soc. 111, or Anthro. 124, or department consent.

319. Applied Anthropology. (3). The application of anthropological knowledge in the solution of social problems in industry, public health and public administration. Prerequisite: Anthro. 124.

322. Primitive Ethnology. (3). A survey of the arts of preliterate peoples with special attention to their function in the cultural setting. Prerequisite: Anthro. 124.
334. Primitive Folklore. (3). A survey of the oral literature of Africa, the Americas, and the Pacific. The role of myths, tales, riddles and proverbs in reflecting a people’s values and world view. Prerequisite: Anthro. 124.

340. Social and Cultural Change. (3). A critical examination of the processual dynamics of social and cultural change the world over, with special emphasis on contemporary non-European areas. Prerequisite: Anthropology 124 or Sociology 111.

341. Primitive Religion. (3). An examination of various concepts concerning the realm of the supernatural as held by primitive people. Relates such religious and magical beliefs—their resultant practices—to the larger patterns of cultural context. Prerequisite: Anthro. 124.

342. North American Archaeology I. (3). The main archeological cultures of western U.S., Canada, and Alaska and the theories of their origin and development. Prerequisite: Anthro. 124 or department consent.

343. North American Archaeology II. (3). Analysis of Woodland, Mississippi, Hopewell, and other archeological cultures of the eastern United States. Prerequisite: Anthro. 124 or department consent.

345. Economic Systems in Pre-Industrial Societies. (3). The study of methods of production, division of labor, organization of markets, concepts of money and property allocation in tribal societies. An emphasis will be placed on kinship units as units of consumption and production. Prerequisite: Anthro. 124.

346. Peasant Society. (3). A cross-cultural survey of anthropological studies of peasant societies in Asia, Europe, Latin America, etc. Emphasis will be placed on the nature of peasant societies as compared with tribal or industrial societies. Prerequisite: Anthro. 124.

349. Primitive Law and Government. (3). Organizational structures and processes which maintain social order in pre-industrial societies. Prerequisite: Anthro. 124.

351. Seminar in Archeology and Ethno-History. (3). Special area and theory problems in an historical approach to culture. Prerequisite: 3 hours of Anthro.

352. Theories of Culture. (3). A survey of the main theoretical movements in cultural anthropology, including both historical and contemporary schools of thought. Prerequisite: 5 hours of Anthropology.

354. Project in Educational Anthropology. (3). A course dealing with the basic concepts of anthropology and their application to social science units in elementary and secondary grades. Explores the nature of subcultures in American society and the problems they pose for the classroom teacher. A course for education majors and graduate students. Also listed as Ed. 446. Cannot be used to meet requirements of the core curriculum for Sociology and Anthropology.

355. Human Design and Movement Behavior. (3). A survey of the general organization of the human body, its terms of structure, function, and purposeful behavior. Discussion of methods and concepts with reference to the evolution of man as toolmaker. Prerequisite: Consent of department.

360. Independent Reading. (1-3).

362. Field Methods in Anthropology. (2-3). A course which instructs the student in archæological and ethnological field methods through actual participation in a field research program. The project depends upon the specific summer session and varies from year to year. Prerequisite: 8 hours of Anthro.

363. Anthropological Seminar. (2-3). Special problems in cultural anthropology. Prerequisite: 5 hours of Anthropology. May be repeated for credit not to exceed a total of 6 hours.

Graduate Courses

504. Methods in Anthropology. (2-3). A course designed to develop abilities in the conception and investigation of anthropological problems, interview and observation techniques, as well as more specialized methods such as photography, mapping and tape recording. Prerequisite: 5 hours of Anthropology.

505. Museum Methods. (3). An introduction to museum techniques, exhibit design and evaluation, preservation of collections, the role of the museum in teaching anthropology. Prerequisite: department consent. May be repeated once.

537. Special Problems in Anthropology I. (1-3). An intensive study on advanced theoretical questions in cultural anthropology or archeology. Prerequisite: 5 hours of Anthropology.

548. Recent Developments in Anthropology. (2). A review of the latest discoveries and interpretations in the science of man. Prerequisite: 5 hours of Anthropology.


SOCIAL WORK

Lower Division Courses

211. Introduction to Social Work. (3). The development of social work organizations, specialized fields of social work, and qualifications required for positions in social work.

Upper Division Courses

255. Social Welfare Interviewing. (3). The interview as a process in social work; including establishment of rapport, relationship to the agency, and referral, as seen in case material.

356. Social Group Leadership. (3). The processes involved in group leadership, including identification with the agency, group leader interaction, and group development, illustrated with case materials.

375. Public Social Security Programs. (3). Social security law and agencies for its implementation with consideration of the social implications.

412. Introduction to Public Health and Welfare Institutions. (2). The organization, structure, function, and interrelationships of modern social and welfare agencies and institutions.

413. Introduction to Community Organization. (3). The relationship of public and private agencies; local, state, and national services; establishment of new services; coordination, planning, and financing community services.

SPANISH

Major: A major in Spanish consists of a minimum of 24 hours beyond Spanish 112 or its equivalent and must include Spanish 224, 226, 230 and at least 9 hours of upper division Hispanic literatures. Courses in Spanish or Spanish-American history, economics, or art are strongly recommended for all majors. All courses offered in the Spanish Department count toward the major in Spanish.

Native speakers of Spanish normally will not be permitted to take courses at the 100-200 level and must take a minimum of 12 hours of Hispanic literatures in order to complete a major in Spanish. Students who have completed more than two units of high school Spanish and students who have spoken Spanish natively will consult with a Spanish department counselor before enrolling in Spanish courses.

Note: Majors who plan to teach Spanish should qualify to teach at least one other foreign language. They must pass Spanish 230 with at least a B grade and must have a 2.75 average in Spanish and department approval in order to be admitted to the professional semester in the College of Education. It is strongly recommended that majors who are planning to teach take Spanish 335 or 426. Secondary Educa-
tion 442F and 447 are required of all majors seeking a high school teaching certificate. Majors interested in Spanish in the elementary schools will consult the departmental professor in charge of teacher education.

Minor: A minor in Spanish consists of a minimum of 11 hours beyond the 112 level, and must include 221, 223, 230, and one upper division course, exclusive of 315 or 316.

Native speakers of Spanish normally will not be permitted to take courses at the 100-200 level and must take a minimum of 6 hours of Hispanic literatures in order to complete a minor in Spanish.

Lower Division Courses

111-112. Elementary Spanish. (5-5). Emphasis on the four fundamental skills in language learning: understanding, speaking, reading, and writing.

221. Basic Spanish Review. (3). Mastery of Spanish verbs and basic structural patterns through intensive oral drill. Prerequisite: Spanish 112 or two or more high school units of Spanish.

223-224. Selected Spanish Reading. (3-3). Intensive reading of Latin American and Spanish literary works. Outside readings and reports. Prerequisite: Spanish 112 or two high school units of Spanish for 223; Spanish 223 or three high school units of Spanish for 224.

226. Intermediate Conversation. (2). Prerequisite: 221 or consent. Should be taken with Spanish 230.

230. Intermediate Spanish Grammar and Composition. (2). Prerequisite: Spanish 221 or consent. Should be taken with Spanish 226.

Upper Division Courses

Spanish 224 is a prerequisite for all upper division literature and civilization courses unless otherwise specified.

315 & 316. Major Topics. (1-2, 1-2). Work taken may be in literary reports, pronunciation, commercial Spanish, use of the language laboratory, or problems in teaching Spanish. May be repeated for credit. Prerequisite: 224, or 226, or 230, or department consent.

324. Advanced Conversation. (3). Prerequisite: Spanish 226 or consent.

326. Advanced Grammar and Composition. (2). Prerequisite: Spanish 230 or consent.

331. Survey of Spanish Literature. (3). Main currents of Spanish literature from 1700 to the present.

332. Survey of Spanish Literature. (3). Spanish literature from the beginning to 1700. Prerequisite: Spanish 331 or consent.

333. Great Themes of Spanish Literature. (2).

334. Contemporary Spanish Theater. (3).

335. Spanish Phonetics and Diction. (2). Prerequisite: Spanish 226 or consent.

421. Main Currents of Spanish-American Literature. (3). Prerequisite: Any 300-level Hispanic literature course.

424. Contemporary Spanish Novel. (3). Prerequisite: Any 300-level Hispanic literature course.


426. Spanish Civilization. (2). Intensive study of Hispanic culture, historical and geographical factors in its development, and its contributions to world civilization. Prerequisite: Any 300 or 400-level Hispanic literature course.

Graduate Courses


531. Seminar in Spanish Literature. (3). The work in this course will be related to the special interests and needs of the students. The early period, Classicism, Romanticism, Realism, Modernism, Modern Literature and Contemporary Literature will be treated as separate areas. May be repeated for credit.

532. Seminar in Spanish-American Literature. (3). The work in this course will be related to the special interests and needs of the students. The Colonial period, Modernism, the short story, the essay, poetry, drama, and the novel will be treated as separate areas. May be repeated for credit.

SPEECH

Major: A minimum of 30 hours including Speech 111, 221, plus specialization in area (1), (2), (3), or (4) below:

(1) (Public Address): Speech 212, 213, 228, 335, 432, 3 hours from Theatre area, 3 hours from Radio-Television area, and 5-6 hours to be elected with consent of the area adviser from 412, 413, 415, 436, 437, 461.

(2) (Theatre): Speech 243, 244, 253, 259, 423, 424, plus at least 7 hours of electives to be chosen with consent of area adviser from 343, 344, 359, 421, 444, 445, 453.


(4) (Speech Education): Speech 212, 213, 143, or 228, 243, 244, 259, 461, 465, and 3 hours to be elected with consent of the area adviser.

Students completing option (1) or (4) must participate in intercollegiate forensics for a minimum of two semesters prior to the senior year.

Option (4) is strongly recommended for those preparing to teach, although option (1) or (2) may be acceptable upon approval of the department. Students not planning to seek qualification for teaching may substitute within option (4) with the consent of the department. Students planning to teach should also check state certification requirements.


Minor: A minimum of 15 hours selected with the approval of the Department of Speech.

Lower Division Courses

101 & 102, 201 and 202. Debate. (1-1-1). Research for debates, participation in 30 or more full length debates per year (15 of which must be intercollegiate competition), and debate squad meetings. Prerequisite: Department consent. Maximum credit in Debate 4 hours; not counted toward major.

111. Extemporaneous Speaking. (2). Analysis of audience, selection of subject, choice of ideas, finding and testing supporting materials, organization, and delivery.
114. Broadcasting and the Citizen. (3). Organization, structure, history, social implications of the broadcasting industry.

143. The Art of the Theatre. (3). An introduction to the theatre as an art form, with emphasis on critical appreciation from the viewpoint of the audience. (Not counted toward Theatre major.)

212. Persuasive Speaking. (2). Training in influencing human behavior in socially acceptable ways via the spoken word. Prerequisite: Speech 111.

213. Argumentation and Debate. (3). The principles of reasoned discourse. The practices of scholastic forensics for prospective secondary teachers. Prerequisite: Department consent.

214 & 215. Radio Workshop. (1-1). Relation of theory to application at KMWU-FM.

221. Oral Interpretation. (3). The development of the mental, vocal, and analytical techniques essential to the interpretation of literature.

223. Phonetics. (2). The physical properties of speech; the formation of sounds, combination of sounds into word patterns, dialectical variety and transcribing of sounds of American English by use of International Phonetic Alphabet.

224. Radio and TV Production. (3). Production and direction of radio and TV programs, laboratory work, KMWU-FM.

225. Business and Professional Speaking. (2). Prerequisite: Speech 111 or department consent. (Offered only at night.)

228. Principles of Group Discussion. (3). Development of reflective thinking, group leadership, and effective group participation. Prerequisite: Speech 111 or department consent.


243. Acting I. (3). Emphasis on the internal techniques of acting, on characterization, and on the actor's analysis of the play and the role.

244. Stagecraft. (3). R; L arr. Theory and practice of making, painting, and using scenery for the stage. Practical work on University Theatre productions.

253. Costuming for the Stage. (3). R; L arr. Basic principles of costume design and construction. Pattern making, material selection, wardrobe management and organization. Practical experience with University Theatre and Experimental Theatre productions.

259. Directing I. (3). R; L arr. Basic theories and principles of stage directing; problems of producing the play with practical experience gained by use of the project method. Prerequisite: 243 or consent.

Upper Division Courses

301 & 302, 401 and 402. Debate. (1-1). Research for debates, participation in 30 or more full length debates per year (15 of which must be intercollegiate competition), and debate squad meetings. Prerequisite: Department consent. Maximum credit in Debate, 4 hours; not counted toward major.

314 & 315. Radio Workshop. (1-1). Relation of theory to application at KMWU-FM.

325. Radio and Television News. (3). (See Journalism 325.)

335. Survey of Rhetorical Theory. (3). From the Greeks to the Moderns.

343. Acting II. (2). Utilization in scenes of the method gained in 243, with emphasis on styles of acting and on comedy technique. Prerequisite: Acting 243.

344. Advanced Stagecraft. (3). R; L arr. Theory and practice of translating set designs and drawings to the physical stage. Practical experience with University Theatre productions. Prerequisite: Speech 244 with a grade of C or better.

359. Directing II. (2). R; L arr. Staging and rehearsal techniques, with emphasis on the problems of the period and stylized play. Prerequisite: Speech 259 or department consent.

403-404. Television Workshop. (2-3). R; L arr. The theories, tools, and techniques of television production; studio work as a member of a TV production crew.

405. Radio and TV Station Management. (3). The organization and management of radio and television station; administrative, programming, technical and sales problems, physical facilities. Prerequisite: Department consent.

407. Radio and TV Programming. (3). Planning, developing, scheduling, based upon audience and market analysis, program ratings, principles of evaluation and criticism.

411. Contemporary Theories of Oral Communication. (3). Conceptual models useful in the scientific study of speech and application from selected areas of psychology, sociology, anthropology, and other related fields.

413. Advanced Theories of Argumentation. (3). Intensive examination of the principles and problems of reasoned discourse.

415. Language and Symbolic Processes. (3). Application of the theoretical framework of general semantics, linguistics, and psycholinguistics to the analysis of oral language behavior. Analysis of language usage which leads to conflict, confusion, and misdirection, and development of methods of accuracy and precision in language usage.

421. Advanced Oral Interpretation. (3). Intensive study and analysis of various forms of literature, the techniques of effective oral communication, and the building of the individual or group concert recital. Prerequisite: Speech 221.

423. Development of the Theatre I. (3). The history of theatrical activity as a social institution and an art form, from the beginning to the eighteenth century. Representative plays, methods of staging, and theatrical architecture of various periods.

424. Development of the Theatre II. (3). From the eighteenth century to the present.

432. American Public Address. (3). A detailed study of notable American speakers and their public utterances; their impact on the political, economic, and social history of this nation from colonial times to the present.

436. Advanced Public Speaking. (3). Theory and practice in the various forms of platform speaking for the academically mature student. Includes such special forms as the after-dinner speech, speeches of good will, tribute, keynote, and courtesy. Prerequisite: Speech 212.

437. Theory of Mass Persuasion. (2). An analysis of the techniques used in the mass media with special emphasis on the use of spoken language.

444. Scene Design. (2). R; L arr. Fundamentals of scene design. Practical work on University Theatre productions. Prerequisite: 244 with grade of C or better.

445. Stage Lighting. (3). R; L arr. Lighting equipment; light design and its relation to scenery design; emphasis upon the problems in the high school, college, church, etc. Practical work on University Theatre productions. Prerequisite: Speech 244 with a grade of C or better.

450. Workshops in Speech. (2-4). (See SEd. 450.)

453. History of Costume. (3). R; L arr. Historical survey and individual research of dress from ancient Egypt to present day period. Theory and practice of adapting period styles to the stage. Practical experience on University and Experimental Theatre productions. Prerequisite: Speech 253 or consent.

461. Directing the Forensics Program. (2). A study of the problems and techniques of administering secondary school and college forensics activities.

465. Communication Disorders. (3). Problems of the speech defective relative to emotional handicaps, pedagogical retardation, etc. Methods for classroom teacher.
FRANK A. NEFF HALL is the home of the College of Business Administration and Industry.
OBJECTIVES AND PROGRAMS

Undergraduate Objectives

The College of Business Administration and Industry has as its primary objective the training of young men and women for active, intelligent, and responsible participation in business and community life. Such participation requires that the graduate have an understanding of the world and society in which we live, an understanding of our business and industrial community, and an understanding of the role of the business administrator.

Regardless of the area of business in which he may operate or the level on which he moves, each administrator has one thing in common with all other administrators. He must make and execute decisions. Training in administration must enable the student to develop a way of thinking or habitual thought process whereby he can make valid business judgments. The student must be taught the process of assembling, ordering, weighing facts, and reaching a conclusion. He must develop the courage and foresight to turn that conclusion into a decision, and he must learn to work with people to turn that decision into reality.

An understanding of our world and society provides the student with a foundation upon which to base his progress as an administrator and assures the graduate of a sense of responsibility for the consequences of his actions. Further, if the student is to learn to make valid business judgments, he also must acquire an understanding of the basic fundamental areas of business and the business process. Still further, it is not sufficient to train the student only in the basic areas of business or in the basic process of business and decision making. While it is not the goal of the College to train the student for his first, or second, position in the business community, it is necessary that the student be able to handle given areas of business information beyond the level of basic principles. And, since an administrator, particularly on the junior and middle levels, works within a specific area of business, the student should have an opportunity for limited specialization. Such specialization enables him to handle specific assignments as an administrator and to make immediate contributions to his organization upon graduation.

The detailed undergraduate objectives of the College of Business Administration and Industry are, then:

1. To provide the student with an understanding of our world and society, to develop the student's intellectual capacities, and to develop an understanding of his rights and responsibilities as an active member of society.
2. To instill in the student the habit of original and orderly thinking.
3. To equip the student with the fundamental business skills and to develop his understanding of the business process.
4. To train the student to make valid business decisions and to work with people in the execution of those decisions.
5. To provide the student with a degree of specialized skill or knowledge in a selected area of business.

Graduate Programs

The primary objective of the programs leading to the degrees of Master of Business Administration and Master of Science in Business Administration is to assist men and women who desire careers either in private business or teaching business administration to further develop those qualities, attitudes, abilities, skills, and understandings which constitute a foundation for future growth in their chosen field.

Other Programs

The College is charged with the responsibility of adding to the total body of knowledge about business administration and economics. Further, the College serves the community and state by providing continuing educational programs and other specialized services. Many of these programs are coordinated by the Center for Business Management Services in the College of Business Administration. In addition, the Center publishes six issues of the Business Journal each year. The Journal is used to report a variety of information to five thousand readers in this region. In addition to articles published by faculty members in the College of Business, the Journal reports economic statistics and related data about this region.

The undergraduate curricula of the College lead to the degrees of Bachelor of Business Administration and Bachelor of Science in Business Administration. A two-year program in secretarial training leads to an Associate of Applied Science degree. The College is divided into the Departments of Accounting, Administration, Economics and Secretarial Training.

For graduate programs see the Graduate School Bulletin.
REGULATIONS

ADMISSION

Entering freshmen interested in business administration are admitted to the University College and must meet the general entrance requirements of the University, see page 15. The program of high school preparation recommended for students entering the University College is given on page 37.

Students may enter the College of Business Administration from the University College, other degree-granting colleges within the University, or other universities and colleges, provided they have completed 24 semester credit hours and have earned a credit point index as follows: 24-63 hours, 1.700; 64 or more hours, 2.000, and are not on academic probation.

PROBATION

A student whose cumulative grade point index falls below the College of Business admission requirements shall be placed on College of Business probation for the next term in which he enrolls. A student on probation may not enroll for more than 12 semester hours. Probation is removed when the cumulative grade point index reaches the required level. The student remains on probation if he earns at least a 2.000 index in the term during which he is on probation and his cumulative grade point index does not yet meet the minimum standards.

A student on probation shall be suspended from the College of Business if he fails to meet either of the requirements of his probationary status. When suspended, a student will not be permitted to re-enroll in the College of Business for a period of 18 weeks. Readmission after a lapse of 18 weeks is not automatic. Students must apply to the College of Business Exceptions Committee to be considered for readmittance on a final probationary status.

REPETITION OF COURSES

Students enrolled in the College of Business Administration may not repeat courses in which a "D" grade is received, except for audit. The rule shall not apply if a grade of "C or better" is required as a prerequisite for a sequence course. Secretarial students may repeat "D" hours in Sec. Tr. 231 or 234 upon consent of the adviser.

CURRICULAR PROGRAMS

In addition to fulfilling the general requirements of the University for graduation, each student shall elect at least six hours from the departments represented in Groups I through IV of the prescribed fields of study exclusive of courses in economics and subject to the limitations set forth below.

Candidates for either of the two baccalaureate degrees offered by the College shall complete at least fifty-six semester hours of courses offered outside the College. In addition, such students shall complete at least fifty semester hours of courses offered by the College.

To assure maximum distribution of course work, the following limitations are in effect: Courses in industrial education or industrial arts, elementary education, library science, police science, and physical education (other than the 4 required hours of service courses) shall not count within the 124 semester hours required for graduation.

BACHELOR OF BUSINESS ADMINISTRATION

Required courses for the degree of Bachelor of Business Administration are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math. 121, 122, Discrete Mathematics*</td>
<td>6</td>
</tr>
<tr>
<td>Acctg. 213, Introductory Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Eco. 221, 233, Principles of Economics</td>
<td>6</td>
</tr>
<tr>
<td>Eco. 238, Introductory Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Eco. 340, Money, Banking and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>Either Eco. 414, Government Regulation of Economic Activity, or Eco. 421, Intermediate Economic Theory</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 261, Principles of Administration</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 265, Seminar A, Communication and Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>Adm. 266, Seminar B, Communication and Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>Adm. 300, Marketing I</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 332, Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 343, Finance I</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 351, Production I</td>
<td>3</td>
</tr>
</tbody>
</table>
* Students taking an emphasis in the Department of Economics may substitute Math. 141, Algebra and Trigonometry, for Math. 121-122, upon department consent.

In addition to the required courses, each candidate for the B.B.A. degree shall satisfy the requirements of one of the following curricular emphases.

ACCOUNTING

Within the 124 hours required for graduation a minimum of 24 hours of accounting is required and a maximum of 30 hours of accounting is allowed.

Required Courses

Those required for the degree of Bachelor of Business Administration and:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acctg. 235, Cost</td>
<td>5</td>
</tr>
<tr>
<td>Acctg. 315, Intermediate</td>
<td>5</td>
</tr>
<tr>
<td>Acctg. 345, Tax</td>
<td>5</td>
</tr>
<tr>
<td>Acctg. 403, Advanced</td>
<td>3</td>
</tr>
<tr>
<td>Acctg. 413, Auditing</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 432-433, Law of Commercial Transactions and Business Associations</td>
<td>5</td>
</tr>
</tbody>
</table>

ADMINISTRATION

Required Courses

Those required for the degree of Bachelor of Business Administration and:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adm. 271, Quantitative Methods and Research</td>
<td>4</td>
</tr>
<tr>
<td>Adm. 274, Control</td>
<td>5</td>
</tr>
<tr>
<td>Adm. 301, Marketing II</td>
<td>2-3</td>
</tr>
<tr>
<td>Adm. 344, Finance II</td>
<td>2-3</td>
</tr>
<tr>
<td>Adm. 352, Production II</td>
<td>2-3</td>
</tr>
<tr>
<td>Adm. 366, Administrative Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>Adm. 451-452, Administrative Policy I &amp; II</td>
<td>5</td>
</tr>
</tbody>
</table>

Students desiring to elect hours within the department of administration may organize specialized programs in marketing, industrial management, finance and general management.
ECONOMICS

Within the 124 hours required for graduation a minimum of 30 hours in economics is required and a maximum of 42 hours in economics is allowed:

Required Courses

Those required for the degree of Bachelor of Business Administration and:

| Course | Hrs.
|--------|------
| Eco. 414, Gov't Regulation of Economic Activity, or Eco. 421, Intermediate Economic Theory (whichever is not taken to fulfill the BBA requirement) | 3
| Adm. 274, Control, or Acctg. 235, Cost | 3
| Electives in Economics (12 hours upper division courses, including not more than six hours from among Eco. 305, 307 and 406) | 12-23

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Candidates for the degree of Bachelor of Science in Business Administration shall complete a total of sixty-two semester hours of Liberal Arts courses. The maximum lower division credit from the Department of Secretarial Training shall be 17-20 hours. Required courses for the degree of Bachelor of Science in Business Administration are:

| Course | Hrs.
|--------|------
| Math. 121, 122, Discrete Mathematics* | 6
| Acctg. 113 & 114, Elementary Accounting Procedures I & II | 6
| Eco. 221, 222, Principles of Economics | 6
| Eco. 235, Introductory Business Statistics | 3
| Eco. 114, Government Regulation of Economic Activity | 2
| Adm. 261, Principles of Administration | 3
| Adm. 265, Seminar A, Communication and Human Relations | 2
| Adm. 266, Seminar B, Communication and Human Relations | 2
| Adm. 300, Marketing I | 3
| Adm. 332, Law and Society | 3
| Adm. 343, Finance I | 3
| Adm. 351, Production I | 2
| Sec. Tr. 133, 138, 237, Typewriting** | 6-8
| Sec. Tr. 201, Secretarial Office Machines | 1
| Sec. Tr. 202, Calculating Machines | 1
| Sec. Tr. 231, 234, 240, Shorthand | 4-9
| Sec. Tr. 136, 203, Records Management and Office Procedures | 4
| Sec. Tr. 345, Transcription | 2
| Sec. Tr. 440, Office Management | 2

* Mathematics 141, Algebra and Trigonometry may be substituted upon dept. consent for Math. 121-122.
** Only 6 hours will count toward a degree—Sec. Tr. 138 and Sec. Tr. 237.

ASSOCIATE OF APPLIED SCIENCE DEGREE ***

The Associate of Applied Science degree provides an opportunity for secretarial preparation of a high quality in a college atmosphere with a view to attaining the Certified Professional Secretary status.

The requirements for the degree are as follows:

Engl. 111, 245; Eco. 221, 222; Acctg. 113, 114; Adm. 120, or 261, or 332; Sec. Tr. 136, 138, 201, 202, 203, 231, 234, 237, and 240, or 345 (136, 231, and 234 may be taken in high school); science or Math. 121*; six hours of humanities; nine hours of general university requirements as outlined on page 22; plus sufficient free electives to equal 64 hours. Thirty hours and 60 credit points shall be earned in residence. Of the required 64 hours, not more than one fourth of D work will count on the Associate of Applied Science degree. No credit is given on this degree for Sec. Tr. 133. If taken in high school, no credit is given for Sec. Tr. 231; free electives shall be substituted for this course. Credit in industrial education, or occupational arts, or elementary education, or library science, police science, and physical education shall not count within the 64 semester hours required for graduation. Twelve of the last 15 hours must be taken in residence.

*** The Associate of Applied Science Degree will be replaced with a certificate after July 1, 1967, but the basic program will remain the same.

BUSINESS EDUCATION

Students interested in preparing to teach business subjects in high school enroll the first year in the University College and then transfer to the College of Education. All students in the University who receive a certificate to teach must meet the requirements as outlined on page 79.

ACCOUNTING

Major: A major in Accounting may be taken only in the College of Business Administration and Industry. Majors must complete the prescribed courses required by the College of Business Administration and Industry as set forth on page 70, including Acctg. 213, 235, 315, 345, 403, and 413. A minimum of 24 semester hours of Accounting is required for an emphasis (or major) in Accounting. Students taking more than 30 semester hours of Accounting will have such excess hours above 30 counted as excess hours above the 124 semester hours needed for graduation. Students who so desire and are eligible may earn graduate credit for such excess hours by properly enrolling the last semester before attaining the BBA degree, if they need ten hours or less to complete the BBA degree. (See page 17).

Minor: A minor in Accounting may be taken in the College of Liberal Arts and Sciences. A minimum of 15 hours must be taken, including Acctg. 213, 235, 315, and two additional upper division hours of accounting.

CERTIFICATE OF CERTIFIED PUBLIC ACCOUNTANT

Candidates for the Certified Public Accountant Certificate in Kansas will be admitted to the semi-annual examination under any one of three admission requirements: (1) proof of college degree, including 30 or more semester hours of accounting, business law, economics, business, and finance, of which at least 20 semester hours must be in accounting; (2) proof of a college degree and completion of three years of public accounting experience; (3) proof of graduation from high school, or an equivalent education, and completion of three years of public accounting experience. The Certificate of Certified Public Accountant will be
awarded to successful candidates in the examination only after completion of two years of public accounting experience for those qualifying under (1) and (3) above. Those qualifying under (2) will receive the Certificate at once. The examination is given in auditing, business law, accounting theory, and accounting practice. It is held each May and November. Questions of the American Institute of Certified Public Accountants' Uniform Examination are used. A candidate who passes two of the four parts is "conditioned" and will be considered to have passed the examination if he successfully completes the other two parts at any time during the next five years. The examination is administered by the Kansas State Board of Accountancy.

Graduates with an Accounting major qualify to sit for the Kansas C.P.A. Examination; however, the department strongly recommends additional work beyond 30 hours of Accounting, to best prepare the student to enter the profession as well as to pass the examination. Such added work may be taken after graduation either in the Division of Continuing Education or in the Graduate School. The M.S. Degree in Accounting currently being offered is strongly recommended for this purpose.

Lower Division Courses

113. Elementary Accounting Procedures I. (3). Basic theory and practice of double entry bookkeeping. Study of work sheet preparation, special journals and subsidiary ledgers, accounting for and control of cash, the voucher control system, payroll accounting for notes and drafts. Closed to students in University College. No credit allowed for students majoring in accounting, economics, or administration.

114. Elementary Accounting Procedures II. (3). Continuation of Acctg. 113. Study of receivables, inventories, fixed assets and depreciation, elementary income tax survey and a survey of data processing methods and procedures. Includes also a survey of accounting for various business organizations. A practice set will be included. Prerequisite: Acctg. 113.

213. Introductory Accounting. (3). Basic accounting procedures in the complete accounting cycle for service and merchandising companies under the three basic forms of business organization, and an introduction to financial statement analysis. Prerequisite: Sophomore standing or department consent.

235. Cost Accounting. (5). The study of accounting for manufacturing operations with emphasis on the accumulation and interpretation of cost data using job order, process, standard, and direct costing techniques. Includes use of accumulated cost data in cost-volume-profit analysis and profit planning for managerial decision making. Prerequisite: Acctg. 213 with a grade of C or better.

Upper Division Courses

315. Intermediate. (3). A review of basic procedures and a thorough, in-depth discussion of valuation and recording procedures for balance sheet items and of income determination. Prerequisite: Acctg. 235 or concurrent enrollment.

345. Tax Accounting. (3). Study of federal and state law and regulations relating to personal, business and fiduciary income tax returns. Primary emphasis will be placed on the federal income tax. Assignments will be made in the use of the various tax services and reporters. Prerequisite: Acctg. 213.


413. Auditing Principles. (3). Basic auditing principles, procedures, and reports. Prerequisite: Acctg. 315.

423. Advanced II. (3). Accounting for fiduciaries—statement of affairs, receiverships, statement of realization and liquidation, estates and trusts. Accounting for branches and subsidiaries. Consolidated financial statements, including those involving foreign branches and subsidiaries. Prerequisite: Acctg. 315.

432. Governmental. (2). Principles and practice for state, county, city and subdivisions thereof, as well as general institutional accounting principles for fund accounting systems. Prerequisite: Acctg. 213 or Adm. 274.

453. Data Processing and Accounting Systems. (3). Study of the format and content of accounting systems reflecting the application of computer inputs to the processing of financial data accumulated in an accounting system. Includes basic computer programming. Prerequisite: Acctg. 235 or Adm. 274 or department consent.

463. C.P.A. Preparation. (3). An integrating course to aid preparation of the candidate for the Uniform C.P.A. Examination in all areas except law and taxation. Prerequisite: 24 hours of accounting.

473. Tax Accounting. (3). See Acctg. 345 for description. Prerequisite: Acctg. 213. Not open to students with credit for Acctg. 345 or its equivalent.

Graduate Courses

503. Directed Readings in Accounting. (1). Individual assignments in selected areas of accounting, written and oral reports. Prerequisite: 24 hours of accounting.

511. History of Accounting. (3). Accounting methods and theories from the viewpoint of their historical development through the centuries in various parts of the world. The inter-relationship between accounting procedures and socio-economic conditions is stressed. Prerequisite: 15 hours of accounting.

512. Contemporary Accounting Theory. (3). An advanced discussion of the conceptual framework of accounting theory underlying current accounting thinking and procedures; a study of its development and the influence of professional organizations in this development. Areas of theoretical controversy are emphasized. Prerequisite: 15 hours of accounting.


533. Professional Auditing Techniques and Practice. (3). Professional aspects of auditing practice and procedures. Techniques of working paper preparation, report writing, and professional ethics are stressed. Prerequisite: Acctg. 413.

550. Accounting Research and Writing. (3). An advanced seminar offering opportunity for oral discussion and written reports on matters of current interest in diverse areas of the accounting field. Major course objective is to develop the student's ability for independent research, as well as presentation and defense of his findings. Prerequisite: 24 hours of accounting.
ADMINISTRATION

The requirements for an emphasis in Administration on a Bachelor of Business Administration degree are listed on page 70.

Students should attempt to arrange their courses according to the following schedule:

(1) Freshman level: Math. 121-122.
(2) Sophomore level: Acctg. 213 and Adm. 274, Eco. 221-222, Eco. 238 and Adm. 271, Adm. 261, Adm. 265-266.
(4) Senior level: Adm. 451-452, Eco. 414 or 421, and professional electives.

Students transferring from other schools or other programs must be especially careful in starting certain of the course sequences at the earliest possible dates, or graduation may be delayed. These sequences, such as Adm. 265-266, 366, require three semesters to complete and usually are scheduled to begin in the fall semester.

Lower Division Courses

120. Introduction to Business. (3). The concept and function of business management in the capitalistic economic system. Includes the development of concepts of management analysis and action. Not open to upper division students.

161. Decision Making and Society. (3). Deals with the decision making process in our society, both at a theoretical level and as applied in various social institutions.

261. Principles of Administration. (3). An analysis of the administrator and the environment in which he operates. Prerequisite: Sophomore standing.

265-266. Seminars A-B. Communication and Human Relations. (2-2). Systematic study of human relations theories and concepts, communication theory and research, with functional training in the communication skills. Prerequisite: Sophomore standing.

271. Quantitative Methods and Research. (4). A combination of quantitative tools of analysis and research methods in business. Concerned with elementary research procedures, statistics, and modern quantitative methods from the point of view of management's direction and use of these methods. Prerequisite: Eco. 238 or department consent.


Upper Division Courses

300-301. Marketing I-II. (3-3). A description and analysis of our marketing system and an investigation of the factors affecting management of the major policy areas of marketing in the firm. Prerequisite: Adm. 261 or concurrent enrollment in 261, or department consent.

332. Law and Society. (3). An analysis of our legal system in operation. Includes legal philosophy and the ends of law, the basic characteristics and subject matter of law, and legal reasoning and process. The role of the legal system in society is examined through study of the concept of freedom of contract.

343-344. Finance I-II. (3-3). Corporate organization, types of securities, obtaining short and long term capital. Includes financial planning and control, forecasting, and budgeting. Prerequisite: Acctg. 114 or 213, or Adm. 274, or department consent.

351-352. Production I-II. (3-3). The concepts and procedures involved in the production function. Prerequisite: Adm. 261 or concurrent enrollment in 261, and Adm. 374 or Acctg. 114 or 235, or department consent.

366. Administrative Decision Making. (3). Study and analysis of the administrative decision-making process and of information system concepts and theories. Includes student involvement in Seminar A and B. Prerequisite: Adm. 266 or department consent.

367. Issues in Business and Society. (3). Business as an evolving social institution conditioned by the social, economic and political forces of its total environment. The responsible role of business management in this total environment. Prerequisite: Eco. 221 and Adm. 332.

371. Operations Research and Systems Analysis. (3). Operations research and systems analysis as management science. Examination of the theoretical basis of quantitative models of operating systems. Emphasis on the logic of techniques of analysis. Prerequisite: Adm. 271.

403. Marketing Analysis. (3). The application of analytical techniques to product design and development, demand analysis, sales forecasting, pricing, and costs. Includes data sources and research procedures. Prerequisite: Adm. 300 or department consent.

405. Consumer Behavior. (3). Study of a variety of concepts in the behavioral sciences related to specific topics in consumer behavior, e.g., mass communications, reference groups, and sociological, psychological and economic aspects of consumer behavior. Prerequisite: Adm. 300.

406. Creative Marketing Strategy. (3). In conjunction with local firms, groups of class members work as consulting teams to help a particular company study and develop an operable plan or program to handle a specific marketing problem. Prerequisite: Adm. 300.

408. Law of Commercial Transactions. (3). Transfer of ownership, payment, transportation, product liability, and public policy are treated as legal aspects of a single transaction, the sale of goods. Prerequisite: Adm. 332.

409. Law of Business Associations. (3). A comparative approach to the law of agency, partnerships, and corporations. Prerequisite: Adm. 332.

411. Investments. (3). Industrial securities and government bonds, the work of investment banking houses, the elements of investment. Prerequisite: Adm. 343.

442. Financial Management. (3). The problems and operations for which the financial officer is responsible, emphasizing controversial aspects of financial analysis. Prerequisite: Adm. 343, and Adm. 274 or 8 hours of accounting, or department consent.

444. Management of Financial Institutions. (3). Consideration of the management and operation of financial institutions, including commercial banks, savings and loan institutions, and consumer credit companies. Covers problems and policies regarding liquidity, reserves, earning assets, loans, income, and expense. Prerequisite: Eco. 340, Adm. 343, or department consent.

451-452. Administrative Policy I-II. (3-3). An integration of all aspects of business administration in the analysis of and making decisions for policy development. Prerequisite: Adm. 301, 343, and 352, or department consent.
ECONOMICS

Lower Division Courses

190. Business, Economics, and Society. (3). Study of basic factors of business and economic change, the role of business leaders, the relationship to the social environment; emphasis on United States development. Not open to upper division students in the College of Business Administration.

190. Consumer Economics. (3). Consumers role in the economy; market organization and its impact on consumers, discussion of information sources for consumers; analysis of the programs for consumer protection. Not open to upper division students in the College of Business Administration.

221. Principles of Economics I. (3). An introduction to the determinants of national income, employment and the general price level. Taxation, and monetary and fiscal stabilization policies. Prerequisite: sophomore standing.


238. Introductory Business Statistics. (3). An introduction to the use of statistical methods in economics and business with emphasis upon measures of distribution, index numbers, and time series analysis. Prerequisite: Math. 122 or 141.

Upper Division Courses

305. Economic History of Europe. (3). An analysis of the development of economic institutions; the rise of capitalism and its influence on overseas expansion, technology, precapitalist society, politics and war; changes in economic ideologies; cultural effects of economic change. Prerequisite: Eco. 221.


360. Labor Economics. (3). Survey of the field of labor economics; labor markets, trade unionism, collective bargaining; wage determination, employment, unemployment, and labor legislation. Prerequisite: Eco. 221. Not open to students with credit for Eco. 350.

400. Seminar in Social Sciences. (3). An interdisciplinary course participated in by staff representatives of the departments of Economics, Political Science, Psychology, and Sociology. Involving a study of the development of the social sciences, an interdisciplinary analysis of a contemporary social problem or institution will be undertaken. Prerequisite: Consent of instructor.


406. Age of Enterprise and Economic Consolidation. (3). (History 436). Economic development of the United States from the Civil War to the present. Prerequisite: Eco. 221.


415. Economics of Transportation. (3). Study of general economic characteristics of various modes of transportation and a consideration of various competitive relationships involved. Prerequisite: Eco. 222.

416. Economics of Air Transportation. (3). Study of general economic characteristics of air transportation and its relationship with other modes of transportation. Prerequisite: Eco. 222.
417. Economics of Public Utilities. (3). Study of general economic characteristics and regulation of water, gas, electric, communications, and related industries, including atomic power. Prerequisite: Eco. 222.

421. Production, Price and Distribution Analysis. (3). Analysis of production and pricing by firms and industries and distribution of income to factors of production. Prerequisite: Eco. 222.

424. National Income Analysis. (3). Aggregate economic analysis and examination of policies affecting the level of income and employment. Prerequisite: Eco. 222. Not open to students with credit for Eco. 447 or 547.

425. History of Economic Thought. (3). A critical analysis of economic thought, the factors which influence this thought, and its impact upon the social and economic development of the modern world. Prerequisite: Eco. 222. Not open to students with credit for Eco. 455 or 456.

438. Intermediate Business Statistics I. (3). Statistical inference, problems of estimation and tests of hypotheses, linear correlation and regression and index numbers to be used as tools of analysis in economics and business. Prerequisite: Eco. 238.


453. Public Finance. (3). Analysis of fiscal institutions and decision-making in the public sector of the American economy; budget planning and execution; taxation, debt, and fiscal policy. Prerequisite: Eco. 251.

454. Fiscal Policy. (3). The economics of government spending and taxation; analysis of the fiscal role and instruments of government and their effects on the economy. Prerequisite: Eco. 222 and 453. Not open to students with credit for Eco. 553.

461. Collective Bargaining and Wage Determination. (3). Economic and legal aspects of collective bargaining, emphasizing the techniques and procedures used, and the major issues and problems inherent in the bargaining process. Manner in which wages are determined under various institutional relationships. Prerequisite: Eco. 222 or 360.


471. Economic Growth and Development. (3). Survey of leading growth theories with an emphasis on the processes of development and capital formation in developing and underdeveloped economies. Determinants of real income, resource allocation, investment criteria, balance of payment problems, national policies, and related topics analyzed within this framework. Prerequisite: Eco. 222.

475. Natural Resources and Regional Planning. (3). A study of the approaches to the optimal allocation of natural resources. Criteria for policy decisions; evaluation of the social and economic benefits and costs of the use of resources through time. Prerequisite: Eco. 222.

480. Risk and Insurance. (3). Economic theory of risk, its significance and treatment; theory and practice of liability, life and health insurance. Prerequisite: Eco. 221.

490. Business Forecasting and Demand Theory. (3). An examination of the factors affecting demand with emphasis on changes over time. Prerequisite: Eco. 239 and 222.

491. Directed Study. (1 to 3). Individual and group study of various aspects and problems of economics. Repeatable. Prerequisite: Department consent.

Graduate Courses

University 500. Interdisciplinary Seminar in Urbanization. (3). An interdisciplinary seminar in the analysis of urban problems; co-sponsored by the departments of Political Science, Administration, Economics, Sociology, and Teachers Education. This is a two-semester course; credit is given upon completion of the second semester.

514. Seminar in Industrial Organization and Public Policy. (3). An analysis of the economic bases for public participation in business activities; Antitrust, regulation, and collective decision making. Prerequisite: Eco. 414.

520. Managerial Economics. (3). A survey of theoretical and analytical tools of economics which are useful in decision making by managers. Prerequisite: Eco. 222.

521. Seminar in Micro-economics Analysis. (3). An analysis of contemporary literature and problems in the area of production, pricing and distribution. Prerequisite: Eco. 421.

522. Seminar in Macroeconomics Analysis. (3). An intensive analysis of contemporary literature and problems in the area of national income analysis. Prerequisite: Eco. 424.


554. Seminar in Public Finance. (3). Analysis of theoretical and applied aspects of public finance in the American and foreign economies. Selected topics of current and permanent importance. Prerequisite: Eco. 454 or 553. (Repeatable to 6 hours.)

561. Seminar in Labor Problems. (3). Intensive analysis of contemporary problems in the field of labor. The specific nature of the problems will be determined by the interest of those enrolled in the course. Prerequisite: Eco. 360.

570. Seminar in International Economics. (3). Intensive study of the pure theory of international trade, resource allocation, balance of payments adjustments, and economic integration. Considerable analysis is devoted to recent publications on selected topics. Prerequisite: Eco. 470.

590. Introduction to Research in the Social Sciences. (3). Philosophy of research, collection and organization of material, and technique and style in writing, with emphasis on the relationship of economics to the social sciences. Prerequisite: Department consent.

591. Directed Study. (1 to 3). Individual and group study of various aspects and problems of economics. Prerequisite: Graduate standing and department consent. (Repeatable with permission of department chairman.)


596. Thesis. (2).

SECRETARIAL TRAINING

Major: No major is offered in the department but courses in secretarial training count on a major for the secretarial emphasis in the College of Business Administration and on the business education major and minor in the College of Education. See page 71 and page 79.

Minor: There is no minor offered in the department.

Secretarial training courses are open to students who are enrolled for a minimum of 9 hours in the University. A college graduate is permitted to enroll for shorthand
and typewriting with the consent of the department and the dean. For exception to these rules, a written application must be made to the head of the department for consideration with the dean of the college concerned. The facilities available determine the enrollment. The decision as to the availability of equipment is made by the head of the department and the Dean of the College of Business Administration.

Students are not permitted to audit courses in the Department of Secretarial Training. No credit is given toward graduation for repetition of first year shorthand or typewriting taken in high school even though a grade is recorded in the course.

Transfer students in shorthand and typewriting who wish to enroll in the College of Business Administration and Industry, or in the College of Education for the major or minor in business education, will be classified in accordance with the results of placement tests.

Terminal courses in both shorthand and typewriting must be taken at Wichita State University by students with the secretarial emphasis or with a major or minor in business education; therefore, no credit is transferred for technical typewriting and technical shorthand. For transfer of credit in courses other than shorthand and typewriting the courses must be commensurate with those given at Wichita State University. The credit allowed for any course will be no more than the credit permitted for the corresponding course at Wichita State University, and under no circumstances will a transfer student be allowed to receive total hours in secretarial training greater than Wichita State University permits.

Lower Division Courses

133. Beginning Typewriting. (2). 3R. Correct fingering and mechanical operation of a typewriter; introduction to business forms. No credit is given to students with a unit in high-school typewriting. (Credit earned in this course does not apply on the Bachelor of Science in Business Administration Degree, or the Associate of Applied Science Degree.) In assigning equipment preference is given to students specializing in business or pursuing a teacher-training program.

136. Records Management. (2). All basic filing systems. Prerequisite: Sec. Tr. 133, or one year high-school typing, or department consent. Can not have credit for both Sec. Tr. 233 and 136.

138. Advanced Typewriting. (3). Stress is placed on correct letter forms, tabulation, manuscript forms, typewriting problems, etc., typed at a high speed accurately. Prerequisite: Sec. Tr. 133 or one year of high-school typing, or department consent.

F138a-S138b. Advanced Typewriting. (2-1). 2L. Class meets one double period for a day. Prerequisite: Sec. Tr. 133, or one unit of high-school typewriting, or department consent.

201. Secretarial Office Machines. (1). 3L. Designed to familiarize students with office machines, including transcribing machines, electric typewriters, and other secretarial office appliances. Some part-time office experience. Prerequisite: Sec. Tr. 237, or department consent.

202. Calculating Machines. (1). 3L. Designed to familiarize students with adding machines, rotary-driven calculators, printing calculators, and key punch machines. Prerequisite: Department consent.

203. Office Procedures and Organization. (2). A study of the various secretarial procedures in a modern office. Prerequisite: Sec. Tr. 234 or 234b and sophomore standing, or department consent. Can not have credit for both Sec. Tr. 293 and 293.

231. Elementary Shorthand. (3). 5RCL. Theory of Gregg shorthand. No credit given to student with one unit of high-school shorthand. Prerequisite: Sec. Tr. 133 or concurrent enrollment, or one unit of high-school typewriting, or department consent.

F231a-S231b. Elementary Shorthand. (2-2). 2¼L. Two meetings of one and one-half periods each, meeting each week for a year. No credit given to student with one unit of high-school shorthand. Prerequisite: Sec. Tr. 133, one unit of high-school typewriting, or department consent.

234. Advanced Shorthand. (1 or 3). 2L or 3R; 2L. Review of Gregg theory. Emphasis on advanced dictation and mailable transcripts. Credit allocated on basis of placement tests for admission. Prerequisite: Sec. Tr. 231 with a grade of C or better, or department consent.

F234a-S234b. Advanced Shorthand. (2-2). 2¼L. Two meetings each week of one and one-half periods per meeting for a year. Closed to those with credit in Sec. Tr. 232 or 232b. Prerequisite: Sec. Tr. 231 or 231b with a grade of C or better, or department consent.

235. Technical Typewriting. (3). The most recent letter forms used in business, difficult tabulating projects, legal typewriting, advanced typewriting problems timed, etc. Emphasis is placed on accuracy at a high speed of typing. Prerequisite: Sec. Tr. 138 or 138b, or two units secretarial training in high school, or department consent.

F237a-S237b. Technical Typewriting. (1-2). 2L. One meeting of two periods each week for a year. Prerequisite: Sec. Tr. 138 or 138b, or department consent.

240. Technical Shorthand. (3). 3R; 1L. Advanced dictation. Emphasis on technical vocabulary and office practices. Prerequisite: Sec. Tr. 234 or 234b with a grade of C or better, and Sec. Tr. 237, or 237b, and 36 hours and 72 grade points, or department consent.

* Duplicate credit will not be given for -a and -b courses of the same number.

Upper Division Courses

345. Transcription. (3). 2R, 2L. Emphasis on transcribing advanced shorthand notes with speed, accuracy, and correct form. Prerequisite: Sec. Tr. 240 with a grade of C or better, or department consent.

440. Office Management. (2). Problems of office organization and management from the supervisory point of view; use of manuals; distribution of authority and responsibility; hiring, training, and promoting employees; quantity and quality of efficiency. Prerequisite: 15 hours of accounting and administration.

469. Directed Studies. (1-5).
THE COLLEGE OF EDUCATION

JACKSON O. POWELL, Ph.D., Dean

The principal purpose of the College of Education is to provide pre-service programs for elementary and secondary teachers. There are other curricular patterns available within the college, but these two are paramount in importance. In addition to minimum curricula for certification as teachers in many teaching fields there are offered programs in educational administration, special education, and in student personnel. These latter, however, are intended essentially to serve in continuing the professional preparation of classroom teachers.

The curricula listed in the sections that follow offer an organization of courses which gives opportunity for systematic study. They are oriented from the notion that understanding of self and one’s world are necessary bases for professional growth. They are arranged to permit the development of (a) understandings of the culture characteristic of a democratic society and education’s place within it; (b) a philosophy of education consistent with living within this society; (c) an adequate professional preparation and the opportunity to relate content to the problems of living; (d) knowledge of human growth and development; and (e) skills in the application of principles of human learning and adjustment. These are competencies expected of effective teachers.

ACCREDITATION AND CERTIFICATION

The College of Education is accredited by all the pertinent agencies which accredit the University. Its accreditation by the State Board of Education permits it to recommend to that body the awarding of appropriate teachers’ certificates without examination.

Within the college, programs are available leading to the baccalaureate degree and to state teachers’ certificates at either the elementary or secondary level. Through the department of education within the school of graduate studies, there are course sequences leading to the Master of Arts in Education, the Master of Education, the Master of Science Education degrees, and the Specialist in Education degree. Through the department of Logopedics, the doctorate in Philosophy can be earned. Included in these graduate programs are the requirements for Certification for Elementary Principals, Secondary Principals, Supervisory Personnel, Educational Administrators and School Counselors. (For specific graduate programs, see the Graduate Bulletin.)

The State Board of Education regulates the standards for all teaching certificates. As the minimum requirements change, the curricula provided in this catalogue change accordingly. It is possible to comply with all of the subject and field requirements recognized in the certificate regulations except that only selected emphases in the field of Special Education are possible.

REQUIREMENTS

ADMISSION

Candidates for admission to the College of Education must have met the general entrance requirements of the University, see page 15, and have fulfilled conditions for transferring from the University College:

(1) The completion of 24 hours.
(2) A cumulative grade point index of 1.700. Students transferring with 64 or more semester hours must have earned a 2.00 grade point average.
(3) A grade of C or higher in English 111 or a statement of proficiency from the Department of English.

Admission to this college, however, is tentative, and is not to be construed as approval for one of the teacher education programs. To be admitted as a candidate for a state teacher’s certificate approval by the Admissions Committee of the College of Education must be gained. Application to this committee and qualification by it must be accomplished during enrollment in the course Ed. Ed. 232, Introduction to the Study of Education. Eligibility to enroll in subsequent courses of the professional sequences is determined in this course. These provisions and the requirements below apply as well to teacher candidates enrolled in any other college of the University.

BACCALAUREATE REQUIREMENTS

There are several sets of requirements that must be met to achieve graduation. These apply not only to undergraduates in the College of Education who are seeking the degree Bachelor of Arts in Education but to all who seek the institution’s recommendation for a teaching certificate. There are certain differences planned for those who would teach the Fine Arts and these differences are described in the Fine Arts section of this catalog.

All prospects graduates must satisfy the general requirements of the University as they are distributed in section I below; must complete one of the professional sequences as set out in sections (II), (III), and (IV) below; and must fulfill the teaching specialty emphases of two programs as specified in the Teaching Field section which follows. Only those specialties listed among the combined curricula and departmental majors and minors in that section may be counted.
An active candidate for teacher qualification must maintain a 1.900 grade average. He may be placed on probation for one semester until that average has been achieved. Admission into the student teaching semester requires a grade point average of 2.25.

(1) The following general program is required of all teacher candidates.

REQUIREMENT 1

The Natural Sciences .................. 12 semester hours

A minimum of four hours must be a laboratory science. Must include courses from two of the three areas of natural science, physical science, and mathematics. Elementary Education majors are required to take Math 375 and Math 374 in partial fulfillment of this requirement.

REQUIREMENT 2

Communications (5-8 hrs.)

(a) English 111, 211, 225, 311, 312, 313, 314, 315 (3-6 hrs.)
(b) Speech 111 (2 hrs.)
(c) Students taking only five hours from above must present a 3-hour course in Literature (Eng. or For.).

REQUIREMENT 3

Humanities (12 hrs.)

(a) Literature (Eng. or Foreign) 6 hrs.
(b) Orsrows (2 divisions 6 hrs.):
   (1) Hist 101, 102, 103, 113, 114, etc.
   (2) Art 200, 202, 303, 305, 401, 461; Music 113, 114, 161, 331, 332.
   (3) Philosophy all courses; Religion 125, 130, 230, 240, 260, 333, 336, 337, 346, 360, 446.
   (4) Humanities 102.

REQUIREMENT 4

Social Science (12 hrs.)

(a) Psychology 111, 112, 246 (3 hrs.)
(b) Orsrows: (2 divisions 6 hrs.):
   (1) Econ. 221, 340, 422, 449, 453.
   (2) Pol. Science 100, 121, 211.
   (3) Sociology 111; Anthro. 124; all others after first courses.
   (4) Other by prior arrangement.
   (5) History may be added to this area for 3 hrs. credit.

REQUIREMENT 5

Electives (6 hrs.)

Chosen from Requirements 1, 2, 3, 4.

REQUIREMENT 6

Physical Activities (4 hrs.)

(a) Air, Military Sci. 113, 114, 223, 224.
(c) Marching Band.

(II) The following program is required of all who plan to qualify for the standard secondary teaching certificate, except those enrolling in (III) below.

(A) Study in a major field normally taught in secondary schools.

(B) Study in at least one minor field usually taught in high schools. In no case will the minor consist of less than 15 semester hours.

(C) Complete the following sequence in professional education:

GROUP 1

Educational Psychology .................. 6 semester hours
   Ed. Psych. 333 and 433.*

GROUP 2

Foundations of Education ................. 6 semester hours
   Fd. Ed. 232 and 428.*

GROUP 3

Secondary Education .................... 11 semester hours
   Sec. Ed. 442* and/or 445* and 447.*

(D) Electives to complete the minimum program of 124 hours. (See p. 22 for regulations concerning upper division courses.)

(III) Those planning to teach in the junior high school will qualify for the standard secondary teaching certificate as follows:

(A) Study in the “Junior high school core” in lieu of a major field and (B) of Group (II), above.

GROUP 1

The American Culture .................. 40 semester hours
   (Including 10 upper division.)
   English 251, 292, 315; Speech 221 and 228; History 102; Sec. 111; Art 141 or 200, or 202, or 303; Pol. Sci. 121; Hist. 132, or 131-132, or 311-312, or 431-432; and elect from Phil. 356;

GROUP 2

The Physical World ..................... 22 semester hours
   Intermediate algebra, and geometry completed on high school or college level; Math 121 and 122 or Math 375 and 374; Sci. Sur. 101 and Biology 111; one laboratory science course of no fewer than 4 hours, though the total shall be 15 hours—from the sciences: P. E. 212 or 225, and 210 or 400. (These may overlap I above.)

(B) See (II) (C) above.

(IV) The following program is required of all who plan to qualify for the degree elementary teaching certificate:

(A) Complete the following sequence in professional education.

GROUP 1

Foundation Courses ................... 7 semester hours

GROUP 2

Curriculum and Instruction ............ 10 semester hours
   El. Ed. 320, 321.

GROUP 3

Student Teaching ....................... 13 semester hours
   Logopedics majors. Elem. Ed. 447 (7) semester hours and 6 semester hours may be selected from Log. 417, 440, or 441. To this El. Ed. 448 should be added, or Sec. Ed. 447 (3 hrs.) substituted for those qualified.

GROUP 4

Special Content (9 hrs., 3 div.)

(a) El. Educ. 216.
(b) Geography 125, 201, 210, 302, 342, 360, 382.
(c) Music 300, 201 or equivalent.
(d) PE 225.
(e) Art 241, 242 or equivalent.
(f) Log. 421.
(g) Independent Study (1-2 hrs.), El. Ed. 322.

Students majoring in Logopedics are not subject to this requirement.

* The Student Teaching Semester.
(B) Elect one academic minor (Except those majoring in Logopedics). See page 81 for minors.
(C) Electives sufficient to complete the minimum program of 124 semester hours. (See page 22 for regulations concerning upper division courses.)

(V) Prospective teachers in the specialized fields of art, music, and special education are subject to certain departmental requirements. Majors in these curricula must also complete (I) and the professional field requirements of IIC above.** School Psychology requires five years.

(VI) One prerequisite to student teaching which is outlined in the required introductory course is that candidates present evidence of having worked with agencies serving children and youth.

TEACHING FIELDS

Selection of teaching fields for the senior high school must be made with an academic counselor from the College of Education. Most fields require a minimum of 24 hours preparation for teaching. University departments may have other requirements. The teaching field or major should be declared not later than the beginning of the junior year.

The major may consist of not more than one-third of the total program counted toward the degree. It generally is made up of not fewer than 30 semester hours. (For specific exceptions see mathematics and language; also combined curricula are not limited to this maximum.)

The usual teaching assignment involves a combination of subjects more or less closely related. For this reason intensive study in the combined disciplines described below is offered in lieu of a major. Where a specific curriculum is chosen for major study, the requirements of the College of Liberal Arts in that subject will prevail.

COMBINED CURRICULA

The first objective of each of these curricula is to prepare the prospective teacher broadly for secondary teaching. At the same time it is desired that each student achieve as nearly as possible the minimum requirements for graduate work in a specified field. In some cases it will be necessary to take an additional one or two courses to reach the latter objective.

All combined majors in secondary education (junior and senior high) which require 50 or more semester hours for completion count as a combined major and minor. Note that they need not complete another minor.

BUSINESS EDUCATION

Major: Teachers of the business subjects in Class A schools of Kansas are required to have 24 semester hours in the field with the equivalent of 6 semester hours in each subject taught, of which at least two semester hours must be resident college credit in other than the beginning course.

Required: Accounting 113 and 114; Economics 221 and 222; Administration 261, 300, 332, and 343; Secretarial Training 138, 237. In addition, one of the options below must be elected. This major consists of a minimum of 36 hours with at least 10 hours of upper division work.

Option A
Certification to teach business subjects including shorthand: Secretarial Training 231 and 234 or Secretarial Training 234 and 240, Accounting 113 and 114.

Option B
Certification to teach business subjects except shorthand: Accounting 213 (or Accounting 113 and 114), Accounting 235 (Cost Accounting), Accounting 315 (Intermediate Accounting.)

A student may major in Business Education and minor in either Accounting or Economics. The requirement for a minor within a field major totals 51 hours. If a student elects a minor in Accounting and option B, he will be required to elect 6 additional hours in the three remaining departments in the College of Business Administration. The business education counselor is to be consulted concerning the acceptability of any transfer course.

Minor: Accounting 213, 223; Economics 221, Secretarial Training 138, 237; and 9 hours from Accounting, Administration, Economics, or Shorthand, of which one course must be upper division.

INDUSTRIAL EDUCATION

Industrial Arts

Minimum requirements for persons planning to teach Industrial Arts in Standard schools are 24 hours in the field with 6 or more hours in each subject taught.

Trades and Industries

Students who have had adequate industrial experience, as specified in the State Plan for Vocational Education, may specialize as teachers of trades and industries.

Technical Education

Students preparing to become teachers of technical subjects must have industrial experience, as specified in the State Plan for Vocational Education and must have a minimum of 18 hours in Natural Sciences.

Major: Required—Ind. Ed. 111, 120, 121, 319, and 401. In addition, at least 3 of the following options must be selected and a minimum of 9 hours must be completed in each of the selected options.

Options
(A) (Drafting) Ind. Ed. 120, 121, 225, 327.
(B) (Woodwork) Ind. Ed. 124, 125, 325, and 326.

** Candidates for the Bachelor of Music Education degree see p. 98 for general and special requirements.
(C) (Auto Mech) Ind. Ed. 155, 156, and (Driver Ed & Training) P.E. 300.

(D) (Metalwork) Ind. Ed. 135, 236, 237, 350, and 351.

(E) (Electricity-Electronics) Ind. Ed. 180, 181, 282, 283, 384, and 385.

(F) (Plastics) Ind. Ed. 260, 261, 362, 363.

Minor: Ind. Ed. 111, 120, 121, 319, 401, and at least 2 of the options as listed for a major.

LANGUAGE ARTS—ENGLISH

Teachers in Class A high schools must have a minimum of 24 semester hours with six hours in each subject taught. Requirements for the major and minor listed below include also the general graduation requirements 2 (excepting fine arts) and 6 of the College of Education.

Major: Required—Engl. 111, 221, 222, 225, * 251, 252, and 315; * Sp. 111, 221, and 114 or 313; and one of the following options.

Options

(A) (Drama) Engl. 324, and 433 or 434; Sp. 243, 244, 259, and 343.

(B) (Literature) Complete group requirements of the Liberal Arts major in English to total 12 upper division hours.

(C) (Speech) Sp. 212, 228, 259, 435, 432, 436 and 448.

(D) (Writing) Engl. 311 and 312; or 313 and 314; and 461 or 462.

(E) (Journalism) Journ. 226, 232, 330 or 450, 336.

Minor: English 111, 221 or 222, 225 * or 315, * and 251 or 252; Sp. 111, 221, and 114 or 313; and 4 upper division hours from any one of the above options.

LANGUAGE ARTS—HUMANITIES

The teaching requirements in the English language and literature subjects are set forth in the English field above. Foreign languages require 24 semester hours or their equivalent preparation. This combination is designed to qualify prospective teachers in English and one foreign language. The required sequence includes general requirements 6 and 11 hours of requirement 2 of the College of Education.

Major: Required—Engl. 111, 221, 222, 225, * 251, 252, and 315, * or 461; Sp. 111, 221, and one of the following options.

Options

(A) French. 24 semester hours or equivalent, including French 225, 333, 334, and 336; Pol. Sci. 227; Phil. 444 or 369; and Hist. 323, 324, 450, and 463.


(C) Spanish. 24 semester hours or equivalent; Phil. 444; Pol. Sci. 227; and 6 hours from Hist. 125, 126, 326, 327, 328.

* Must be completed with a grade of B or better.

(D) German. 24 semester hours or equivalent; Phil. 444 or 470; Pol. Sci. 228; and 6 hours from Hist. 325, 324, 422, 424, 463.

Minor: No minor is offered.

NATURAL SCIENCES—BIOLOGICAL

Teachers in Class A schools are required to have 24 hours in the field of science with 6 hours in each subject taught. A teacher qualifying under this provision may also teach general science. Requirements for the major listed below include the general graduation requirements 1 and 6 of the College of Education.

Major: Required—Biol. 111, 112, 201, 227 or 228, 329 or 330, plus 7 hours of Upper Division Biology, Chem. 111, 112, 231, 232 or the equivalent, and either a Physics or Geology option (Physics 123 or 124 or Geology 111 and 112).

Minor: Biology 111, 112, 201 and at least 4 hours of upper division Biology; and 5 hours of Chemistry or Physics.

NATURAL SCIENCES—PHYSICAL

The teaching requirement set forth in the Biological Science field applies to the physical sciences as well. Requirements for the major listed below include also the general graduation requirements 1 and 6 of the College of Education.

Major: Required—Biol. 111-112; Chem. 111, 112; Geol. 111; Phys. 123, 124; and 10 hours from the following, including at least 5 hours from one department (specific course prerequisites must be met): Chem. 231, 232, 303, 304, 323, 324, 411, 412, Geol. 331, 335, 336, 337, 446; Physics, any of the upper division courses.

Minor: The minor shall consist of at least 15 hours, beyond the general graduation requirements, including 3 hours of upper division credit from Chemistry, Geology, or Physics.

SOCIAL STUDIES

To teach any of the social sciences, 24 hours in the field of social studies are required for certification with a minimum of 6 hours preparation in each specific subject taught. Requirements for the major may overlap general graduation requirements 3, 4, and requirement 6 of the College of Education.

Major: Required—Eco. 221 and 222, and 3 hrs. upper division Eco.; Hist. 101, 102, 131, 132 or Hist. 311, 312, 313 and 314; Pol. Sci. 100, 121, 129 and 336; Soc. 111; Anthro. 124 or 125; Psych. 246 or Soc. 320, Geography 125 and 210. In addition to these courses a minimum of 9 semester hours shall be selected from one of the three options.

Options

(A) Hist. 432, 433, 438, 448.

(B) Hist. 331, 333, 431, 437.

MINOR: Eco. 221, and 3 hours upper division Eco.; Hist. 131, 132; Pol. Sci. 100, 121; Soc. 111; Anthro. 124 or 125; and one course from Option (A), (B), or (C) above.

DEPARTMENTAL MAJORS AND MINORS

Departmental Curricula: The various departments of the schools and colleges of the University offer major and minor fields of study. Any one of the curricula that follows is suitable as a supporting minor to the combined fields of study above. Only those marked with an asterisk (*) will be accepted as a major in the College of Education. The specific requirements of the department prevail:

- Accounting
- American Civilization
- Art
- Biology
- Chemistry
- Classical Languages
- Economics
- English Language and Literature
- French
- German
- History
- Journalism
- Logopedics
- Mathematics
- Music
- Philosophy
- Physical Education
- Physics
- Political Science
- Psychology
- Religious Education and Geology
- Sociology
- Speech
- Spanish
- Speech

**Teaching preparation for a modern language requires 24 semester hours in the language to be taught, or 15 semester hours if the prospective teacher has 24 semester hours in another modern language.***

***For the Special Education program in School Psychology, consult either with the head of the Psychology Department or with the Dean of the College of Education.

****Religious Education must be combined with Philosophy on minor so more than 8 hours Religious Ed. will count towards degree.

TEACHER EDUCATION CURRICULA

University 500. Interdisciplinary Seminar in Urbanization. (3). An interdisciplinary seminar in the analysis of urban problems; co-sponsored by the departments of Political Science, Administration, Economics, Sociology, and Teacher Education. This is a two-semester course; credit is given upon completion of the second semester.

ADMINISTRATION AND CURRICULUM

Upper Division Courses

434. The Junior High School. (3). Problems of the organization, function and curricular program of the junior high school, with emphasis on the transitional needs of students. (Offered fall only.)

450. Simulation Workshop in Administration. (1-2). Designed for the experienced administrator who desires to improve his present skill and develop some new ones. The workshop focuses on the areas of: Human Relations, Group Dynamics, Decision Making, Administrative Communication, Perception and Staff Morale. Prerequisite: Consent of Instructor. (Offered summers.)

460. Group Dynamics for Teachers. (2). A laboratory course in human relations and group dynamics based upon involvement in various group activities. Applications for the use of group dynamics in classroom teaching utilizing knowledge gained in personal experience in group work. (Prerequisite: Teachers certification.) (Offered fall and summer.)

AC, Ed. Graduate Courses

501. Introduction to Administration and Supervision. (3). An examination of the major theories of administration and their application to specific problems. Emphasis upon an overview of administration of the school district, especially problems involving the community and the staff. Includes data gathering for self-evaluation of supervisory potential. Open to all College of Education graduate majors.

503. The Sociology of Administration. (3). An examination of the interaction of Society and the School as it relates to the administrative processes. Systems of control, social class, power structure, human relations and group dynamics. Prerequisite: Master's degree or consent of instructor. (Offered spring and alternate summers.)

504. Supervision and the Improvement of Instruction. (3). The application of curricular theories, psychology and methods of supervision to the problems of improving classroom instruction and teaching methods. Open to all college of education graduate majors.

506. Elementary School Organization and Administration. (3). Alternate methods of organizing the elementary school and its classrooms, problems of administration of staff, curriculum, pupils and facilities, community relations. Prerequisite: AC, Ed. 501. (Offered fall and summer.)

510. Extra-Class Activities. (2). The role of Extra-Class activities in elementary and secondary school programs. Problems of organizing and administering the program. (Offered summers only, when sufficient demand exists.)

522. Financial Support of Education. (3). Concepts of the financial support of education at local, state and national levels. Emphasis upon methods of taxation, budget preparation, and efficient expenditures. Prerequisite: AC, Ed. 501. (Offered spring and summer.)

523. School Law. (2). General concepts of law, interpretations of statutes and court decisions affecting education, legal responsibilities of school personnel. Kansas school law. (Offered fall and alternate summers.)

524. The School Plant. (3). Planning new school buildings based upon educational programs. Evaluation of existing schools, remodeling, operation and maintenance of present school plants. Prerequisite: Master's degree or consent of instructor. (Offered spring and alternate summers.)

526. Curriculum Development. (3). Curriculum philosophies and theories. An examination of recent programs and proposals. The local school building and individual teacher as units of curriculum development. System-wide curriculum development and evaluation with kindergarten through grade 12 articulation. Prerequisite: AC, Ed. 504. (Offered spring only.)

531. Organization and Administration of the Secondary School. (3). Organizational plans for junior and senior highs, present trends. Problems of administration of staff, pupil, curriculum, facilities and community relationships in the modern secondary school. Prerequisite: AC, Ed. 501. (Offered spring and summer.)

536. Problems of Staff Personnel. (3). Advanced study of staff problems—selection and recruitment, certification, orientation, in-service training, evaluation, transfer and dismissal, and retirement. Prerequisite: Master's degree or consent of instructor. (Offered alternate springs and summers.)

537. School Business Management. (3). School budgeting processes, salary scheduling, cost accounting and purchasing procedures, IBM programming of record systems. Prerequisite: AC, Ed. 522 and consent of instructor. (Offered alternate summers.)

547-548-549. The Internship. (4-4-4). Assignment in the public schools for one full semester. Prerequisite: Master's degree, 12 hours in school administration, and 3.25 graduate grade average. (Arranged on individual basis.)

560. Seminar in the Process of Administration. (1-3). Concurrent enrollment in the Internship is required. (Arranged on an individual basis.)

566. Frontiers of Knowledge and the Future of Education. (3). Key concepts and discoveries in the sciences and humanities presented by experts in each field and investigation of their possible implications in education. (Offered summers when sufficient demand exists.)

COLLEGE OF EDUCATION
AEROSPACE STUDIES

The United States Air Force, in agreement with Wichita State University officials, maintains a permanent active duty staff of personnel to implement the Senior Division curricula of its Reserve Officers Training Corps. This is a totally new program, authorized by Public Law 88-647, October 13, 1964. The purpose of Air Force ROTC under this legislation is to select young men for active duty and careers as commissioned officers in the United States Air Force.

There are two separate and distinct Air Force programs available to students at Wichita State University—first, there is a 4-Year Program, the first two years of which are known as General Military Course (GMC); the second is a 2-Year Program, known in its entirety as the Professional Officer Course (POC). Academically, the last two years of the 4-Year Program and all of the 2-Year Program are identical. All course listings are grouped under the common title Aerospace Studies. The objective of all courses in Aerospace Studies is to strengthen the general education base of the junior commissioned officer.

The Air Force provides uniforms and Aerospace Studies texts at no expense to students enrolled in either program. Students enrolled in the 4-Year Program must attend a four-week Field Training Course (FTC), normally between the junior and senior years. The 2-Year Program requires a six-week Field Training Course (FTC), satisfactory completion of which is requisite for acceptance into the program. The four-week Field Training Course, normally conducted after the first successful academic year in the Professional Officer Course, is not required for the 2-year student. Normally, students will be eligible to apply for the 2-Year Program after completion of the sophomore year.

Individual students receive $40 per month retainer pay for a maximum of 20 months when enrolled in the Professional Officer Education Program, regardless of whether enrollment is in the 2-Year or 4-Year Program. Pay to the student for Field Training is $87.90 per month for the 6-week Field Training Course and $147.50 per month for the 4-week Field Training Course. Travel expenses to and from either training site are reimbursed at the rate of 6 cents per mile.

Any student enrolled at an accredited University or College may enroll in either Aerospace Studies program at Wichita State University provided the respective institutions concur and the prospective student meets the qualifications determined by the Professor of Aerospace Studies. Entry into the Professional Officer Education Program is open to any qualifying male student who has four semesters study remaining at either the undergraduate or graduate level. Upon completion of the Professional Officer Course and the awarding of a degree by the institution in which enrolled the Air Force ROTC cadet is commissioned a Second Lieutenant by the President of the United States. Upon entering active duty the new officer will receive $300 for purchase of uniforms.

A competitive Air Force scholarship program is in effect at Wichita State University for all who enroll in the 4-Year Program. For those winning scholarships it provides $50 per month, plus all texts, tuition, library, and laboratory fees for the entire period for which the scholarship is awarded. In addition, three other separate scholarships are awarded to students who are enrolled in the Professional Officer Course. Specifics about each scholarship program may be obtained from the Professor of Aerospace Studies.

Superior students during the freshman and sophomore years may be nominated for attendance at the United States Air Force Academy. Nomination is based on a quota allocated by the Academy to the Professor of Aerospace Studies at Wichita State University. All nominations by the Professor of Aerospace Studies must be concurred in by the President of the University.

The General Military Education Course consists of one hour classroom work and one hour Corps Training per week during the first semester of the academic year for freshmen. Sophomores, during this first semester, attend class two hours and Corps Training one hour. The second semester of the academic year requires two hours of classroom work and one hour Corps Training from the freshmen, while the sophomores attend class one hour and Corps Training one hour. During the first semester of the freshman year and the second semester of the sophomore year certain regular college courses will be accepted as meeting pre-commission officer education requirements. These courses must be taken from the fields of Mathematics, the Physical or Natural Sciences, Foreign Languages, the Humanities or the Social Sciences. Final approval of supporting courses will rest with the Department of Aerospace Studies.

Students enrolling in the General Military Course will undergo a testing period of approximately six hours duration for the purpose of determining officer aptitude and eligibility for the Professional Officer Course. This testing will normally be conducted on Saturday and will be at no expense to the student.

Prospective Air Force Officers may qualify for the Professional Officer Course—the third and fourth years of the 4-Year Program or the first and second years of the 2-Year Program—if they have completed the General Military Course or the six-week Field Training Course, and are qualified mentally and physically. To be eligible for enrollment, students must have a scholastic average of 2.000 or above, and must have completed the required processing by the Department of Aerospace Studies. Each of the four semesters of this course consists of three classroom hours and one hour of Corps Training per week.

Cadets enrolled in the Professional Officer Course and who qualify mentally and physically for pilot training are provided 7½ hours specialized instruc-
tion—of this total, 35 hours consist of intensive ground training preparatory to flying, while 36 hours are devoted to flying instruction by a Federal Aviation Agency approved school. The young Air Force pilot trainee may simultaneously qualify for a Federal Aviation Agency Private Pilot License. Three additional semester hours credit are earned for this flying phase of the Air Force ROTC cadet's training.

Activities available to the student on a voluntary basis while enrolled in Aerospace Studies consist of two drill teams, two color guards, a band, cadet newspaper and Arnold Air Society. Arnold Air Society is a cadet organization whose purpose is to foster interest in, knowledge about and the promotion of aerospace power. The squadron at Wichita State University is the largest in the continental United States, Puerto Rico and Hawaii.

**Lower Division Courses**

118 and 114. First Year General Military Course. (1-1), 1R 1C. 1 Corps Training. Aerospace Studies 119 and 114. World Military Systems. An introductory course exploring the causes of the present world conflict, the role and relationship of military power to that conflict, and the responsibility of an Air Force Officer. The course begins with a discussion of the factors from which differing political philosophies have evolved. It continues with tridimensional analysis of the three prime political philosophies which have guided the political movements of society in the twentieth century. This is followed by a discussion of the means by which nations develop to pursue their objectives and how they confront each other in the use of their military forces. The course then treats individual military systems with emphasis upon the United States Department of Defense and the United States Air Force.

223 and 224. Second Year General Military Course. (1-1), 2C; 1R 1C. 2 Corps Training. Aerospace Studies 223 and 224. World Military Systems. Aerospace Studies 223 and 224 continue the study of world military forces and the political-military issues surrounding the existence of these forces. This includes a study of the United States Army, the United States Navy, their doctrines, missions and employment concepts; a study of the military forces of NATO (North Atlantic Treaty Organization), SEATO (Southeast Asia Treaty Organization), CENTO (Central Treaty Organization) and their role in free world security; and an investigation of the military forces of the USSR (Union of Soviet Socialist Republics), the Soviet Union, the satellite nations, and the Chinese Communist Army. The Aerospace Studies 2 phase concludes with an analysis of the trends and implications of world military power.

**Upper Division Courses**

353 and 354. First Year Professional Officer Course. (3-3), 3R 1C. 3 Corps Training. Aerospace Studies 353 and 354. Growth and Development of Aerospace Power. A survey course about the nature of war; development of airpower in the United States; mission and organization of the Department of Defense; Air Force concepts, doctrine, and employment; aeronautics, space, and space operations; and the future development of aerospace power. Includes the United States space programs, vehicles, systems and problems in space exploration.

453 and 454. Second Year Professional Officer Course. (3-3), 3R 1C. 4 Corps Training. Aerospace Studies 453 and 454. The Professional Officer. A study of professionalism, leadership, and management. Includes the meaning of professionalism, professional responsibilities, the military justice system, leadership theory, functions and practices, management principles and functions, problem solving, and management tools, practices and controls.

* Aerospace Studies 113 and 224 students will also take courses from the fields of Mathematics, the Physical or Natural Sciences, Foreign Languages, the Humanities or the Social Sciences as approved by the Department of Aerospace Studies.

**ART EDUCATION**

**Lower Division Courses**

241. Art Education in the Elementary School. (3). Study of the child's creative and mental growth and development through the use of two and three dimensional materials; the development of an arts program for the elementary school.

242. Handcraft Methods. (3). Creative experiences in process and design in three dimensional materials with emphasis on the interests, needs and capabilities of students at the various age-class levels; primary through high school. Prerequisite: Art Ed 241.

**Upper Division Courses**

406. Art Curriculum and Supervision Methods. (3). The construction of an art program of study outline for elementary grades and junior and senior high school; techniques in the supervision of an art education program.

422. Art Education in Secondary School. (4). Study of the senior-junior high school students and their needs for creative expression and understanding of art as a maturing individual. Included is observation in public school art education classes.

**EDUCATIONAL PSYCHOLOGY**

**Lower Division Courses**

233. The Elementary School Child. (4). His socio-cultural context, developmental characteristics, with stress upon application to instruction. Prerequisite: Psych 111, Ed. 232 (or department consent), and sophomore standing.

**Upper Division Courses**

333. The Secondary School Student. (4). 4R; 1L. Development during early and middle adolescent years and relation of theory and research to instruction. Laboratory devoted to instruction in the preparation and use of audio-visual materials. Prerequisite: Psych 111, Ed. 293, or department consent.

361. Educational Measurements. (3). Fundamental statistical methods applied to educational problems; construction, administration and analysis of teacher-made examinations. Prerequisite: Ed. Psych 233 or 333.


405. Psychology of Reading. (3). Stresses adaptation of research findings to needs of classroom. Individual case study of a child with reading difficulties. Prerequisite: Ed. 320.

421. Mental Hygiene. (3). Principles of mental hygiene in relationship to the development of wholesome personality. There are examined the interrelationships of teacher, school, home, and community as they affect mental health. Prerequisite: Ed. Psych. 293 or 333.


465. The Learning Process. (3). (Same as Psych 465.)

**Graduate Courses**

500. Introduction to Graduate Study in Education. (3). Teaching as a field of graduate study with emphasis on the nature and methods of inquiry.

502. Educating the Poolely Adjusted School Child. (3). Perceptual approach to the problems of disordered and emotionally disturbed children in both elementary and secondary schools.
511. Evaluating Pupil Progress. (3). Educational evaluation in the cognitive, affective, and psycho-motor domains; statistical analysis of test results. Prerequisite: Ed. Psy. 300 or consent of instructor.

518. Growth and Development. (3). Bio-social foundations of human growth and development related to the development of behavior from birth to maturity. Prerequisite: Ed. Psy. 293 or 333 or consent.

520. Learning Theory for Teachers. (3). A study of the major learning theories and their effectiveness and application in the classroom. Individual differences in learning. Prerequisite: Ed. Psy. 333 or 333 or equivalent or consent of instructor.

521. Advanced Educational Psychology. (3). Review of recent research in the areas of growth and development, personality and social factors in education. Prerequisite: Ed. Psy. 520 or consent of instructor.

530. *Educating the Adolescent. (3). Relation of the problem of adolescence to development of the secondary curriculum. Prerequisite: 6 hours of Ed. Psych.


562. Presentation of Research. (1-2). A project submitted in thesis manuscript form. Prerequisite: Ed. Psych. 561 or Log 550 or concurrent enrollment. May be repeated for a maximum total of 2 hours credit.


* Prerequisites may be waived for equivalent experience by department consent.

ELEMEHTARY EDUCATION

Lower Division Courses

216. Children's Literature. (3). Reading and discussion of stories, poems, and factual materials for children; a background of appreciation essential to the setting up of standards of selection. Authors, illustrators, poets, and their contributions to children's literature are studied; also the children's library and book list.

Upper Division Courses


322. Individual Studies in Education. (1-2).

406. Social Studies in the Elementary School. (3). Objectives, methods of teaching, equipment and resources, and evaluation and measurement in the social studies in the elementary school. The unit method of construction is stressed.


408. Science in the Elementary School. (3). To identify and explore the principles of science that teachers should recognize and understand; to give consideration to their development from kindergarten through grade eight. To experience these concepts through demonstration or experimentation.

447. *Student Teaching in the Elementary School. (3-10). The student teaching program provides full-time participation in the public schools and Institute of Logopedics under guidance of a master teacher and a college supervisor. Logopedics majors will be assigned to the Institute of Logopedics for the first nine weeks and then assigned to a self-contained classroom for the second nine weeks of the semester. Prerequisite: Ed. Ed. 232, Ed. Psy. 233, Ed. Ed. 320 and 321.

448. Seminar in Student Teaching. (3). Taken concurrently with Student Teaching. Concerned with evaluation of experience and planning for the next experience in the classroom.

450. Workshops in Education. (1 to 4).

452. Special Studies in Education. (1-3). (a) Mathematics, (b) Health and physical education, (c) Language Arts, (d) Reading, (e) Recent innovations, (f) Science, (g) Social Studies. (h) Other Areas. Course designed for elementary school teachers. Only one pre-selected area will be emphasized during a semester. Prerequisite: Teachers certification.) This course may be repeated with advisor's consent.

Graduate Courses

550. Special Problems in Education. (1 to 4). Directed reading and research under supervision of a graduate instructor. Prerequisite: Approval of the department.

559. Seminar in Elementary Education. (3).

563. Trends in Theories of Instruction. (3). Uses materials from public school work groups and from research journals to examine development of modern practices.

* Prerequisites may be waived for equivalent experience by department consent.

INDUSTRIAL EDUCATION

Lower Division Courses

111. Introduction to Industrial Education. (2). Industrial Education as a career; an introduction to present day programs and the opportunities available; a survey of materials and processes used in industry; recommended as a first course in the department.

120. Drafting I. (3). 2R; 4L. An introduction to orthographic, isometric, and oblique drawing; emphasis placed on auxiliary views, sectional views, dimensioning, lettering, care and use of drafting instruments.

121. *Drafting II. (3). 2R; 4L. A study of the relationship of views in drafting with emphasis placed on rotations and visualization through logic. Prerequisite: Ind. Ed. 120.

124. Woodwork I. (3). 2R; 3L. Fundamental use and care of hand tools, building of projects involving basic woodworking processes; development of accepted shop practices; application of brush and dope-on finishes.

125. Woodwork II. (3). 2R; 3L. Continuation of Woodwork I with emphasis placed on the use and care of woodworking machines and the application of spray finishes. Prerequisite: Ind. Ed. 124.

135. Metalwork I. (3). 2R; 3L. A basic course dealing with the processes, equipment, materials and products of the metalworking industry; lab experience in sheetmetal, benchmetals, fusing, founding, welding, and machine tools.


156. *Auto Mech. II. (3). 2R; 3L. Practical application of theories studied in the first semester. Shop work includes tune-up, valve grinding, transmissions, front end, etc. Prerequisite: Ind. Ed. 155.

180. Electricity I. (3) 2R; 3L. A study of basic concepts of direct current electricity with emphasis on an understanding of Kirchoff's and Ohm's laws.
181. Electricity II. (3). 2R; 3L. A study of basic concepts of alternating current electricity with emphasis on reactance and impedance of resonant and non-resonant circuits. Prerequisite: Ind. Ed. 180.

225. Drafting III. (3). 2R; 4L. Development of working drawings in aircraft, structural, architectural, electrical, and mechanical drafting. Prerequisite: Ind. Ed. 121.

236. Metalwork II. (3). 2R; 3L. Study of materials used by the sheetmetal industry; methods of layout, forming, fastening, finishing; use of hand tools and machines. Prerequisite: Ind. Ed. 135.

237. Metalwork III. (3). 2R; 3L. Study of mechanical and physical properties of metals and how these characteristics are affected by heat; the working of metals while hot; forging, heat treating, founding and welding. Prerequisite: Ind. Ed. 155.

260. Plastics I. (3). 2R; 3L. Study of plastic materials being used in industry; fundamental operations including molding, casting, thermoforming, fabrication, and finishing.

261. Plastics II. (3). 2R; 3L. Technical information and product development; construction of molds and forms for molding, casting, laminating, and thermoforming. Prerequisite: Ind. Ed. 260.

282. Electronics I. (3). 2R; 3L. A study of the fundamental characteristics of vacuum tubes and semiconductors and an analysis of their operation. Prerequisite: Ind. Ed. 181.

283. Electronics II. (3). 2R; 3L. A study of basic electronic circuits and systems, including an introduction to radio circuits and systems, with proper circuit analysis techniques receiving major emphasis. Prerequisite: Ind. Ed. 282.

Upper Division Courses

319. Shop Planning and Organization. (3). Selection, purchase, and organization of shop equipment and supplies; developing and maintaining necessary records and reports; planning of shop facilities.

325. Woodwork II. (2R; 3L. Further application of the fundamentals of woodwork and design in construction of advanced projects; a study of wood technology and how it affects construction. Prerequisite: Ind. Ed. 125.

326. Woodwork IV. (3). 2R; 3L. Advanced work for specialists in the woodworking field with emphasis placed on problems growing from the needs of the student. Prerequisite: Ind. Ed. 325.

327. Drafting IV. (3). 2R; 4L. Advanced study for drafting students with emphasis placed on problems growing from the needs of the student. Prerequisite: Ind. Ed. 225.

350. Metalwork IV. (3). 2R; 3L. Fundamentals of benchwork and basic operations on lathes, mills, grinders, shapers, and drills. Prerequisite: Ind. Ed. 135.

351. Metalwork V. (3). 2R; 3L. Emphasis on advanced machine tool operations; new techniques of industry and the making of basic tools and dies. Prerequisite: Ind. Ed. 350.

362. Plastics III. (3). 2R; 3L. Advanced problems in production techniques; compression and injection molding; recent developments and experimental work. Prerequisite: Ind. Ed. 281.

363. Plastics IV. (3). 2R; 3L. Advanced problems in production techniques; extrusion, rotational casting and foaming; recent developments and experimental work. Prerequisite: Ind. Ed. 362.

384. Electronics III. (3). 2R; 3L. An introduction to nonsinusoidal waveshapes; multivibrators, blocking and shock-excited oscillators, wave shaping circuits; limiters, clammers and counters; sweep generator circuits; special power supply considerations; circuit system applications; television transmitters and receivers; pulse circuit transistor applications. Prerequisite: Ind. Ed. 283.

385. Electronics IV. (3). 2R; 3L. Motors and generators; synchros and synchro control systems; servo control devices and systems; industrial measurement and control systems; introduction to microwaves and microwave oscillators; microwave transmitters, microwave duplexers and antennas; amplifiers and microwave mixers; microwave receivers; multiplexing; radar detection and navigation systems. Prerequisite: Ind. Ed. 384.

401. Preparation of Instructional Materials. (3). The selection, development, and organization of instructional materials for effective teaching of industrial education.

* Prerequisites may be waived for equivalent experience by department consent.

LIBRARY SCIENCE

The Kansas State Board of Education requires that teacher-librarians in Class A and Class B schools with enrollments under 200 have eight hours credit in library science.

The courses listed from 401 to 405 may be used to satisfy this requirement. Elementary school librarians may also select from these courses. They are offered only in the summer session.

Note that courses 403 and 405 are offered in alternate summers.

The library science courses are planned for: (1) students who wish to meet qualifications for positions as elementary or secondary school librarians; (2) classroom teachers who desire a broader acquaintance with books for curriculum enrichment; and (3) administrators who wish to evaluate the effectiveness of the school library and its relationship with all areas of the total instructional program.

Upper Division Courses

401. School Library Cataloging and Classification. (3). The fundamentals of the Dewey Decimal Classification system and the basic cataloging techniques necessary for organizing a school library collection.

402. The School Library Book Collection. (3). The principles and methods involved in book selection for the school library, the techniques of reference service, and the literature of school subjects.

403. School Library Administration. (2). The activities and functions of the school library, the relationship of the librarian to the teaching staff, the organization of technical and mechanical processes such as circulation and order routines, the repair of books, and teaching the use of the library to students.


405. The School Library Program. (2). Emphasis is on planning and implementing an effective school library program. Explores objectives and standards, and deals with all phases of instruction, services and activities through which the school library contributes to the total instructional program of the school.

LOCOPEDICS

Major: A major may be obtained with emphasis in speech pathology, audiology, or deaf education. The curriculum sequence of the department is designed to meet the academic and practicum requirements for clinical certification in speech pathology or audiology as set forth by the American Speech and Hearing As-
association. The curriculum may also prepare students as teachers of the deaf as outlined by the Conference of Executives of American Schools for the Deaf. These requirements necessitate direct supervised experience with actual cases. Logopedics 317, 326, 417 and 441 are laboratory courses required of students majoring in speech pathology. Students desiring certification in audiology must elect Logopedics 317, 326, 441, and 455. Students preparing themselves to be teachers of the deaf must elect Logopedics 317, 326, 440 and 441. All of these clinical courses are designated by the symbols (R) and (L). Three hours of credit per semester require a minimum of ten clock hours per week. Two hours of credit per semester requires a minimum of seven clock hours per week. Various other courses in the department are listed with lecture hours designated as (R) and demonstrations designated as (D), each hour of D being one clock hour.

Teacher Education: By arrangement with the department of Education, any one of these emphases may be combined in a dual major with Elementary Education to qualify a candidate for employment in the Public Schools. The Education requirements are given on page 78.

The major with emphasis in speech pathology consists of 30 hours and includes the following courses:

**Required**—Logopedics 111, 132, 212, 315, 317, 324, 326, 415, 417, 431 and 441.

The major with emphasis in audiology consists of 30 hours and includes the following courses:

**Required**—Logopedics 111, 132, 212, 315, 317, 324, 326, 431, 436, 437 and 441. Logopedics 455 is required but is taken in the first semester of graduate work.

The major with emphasis in deaf education consists of 30 hours and includes the following courses:

**Required**—Logopedics 111, 212, 317, 326, 431, 433, 434, 437, 438, 439, and 440. Logopedics 441 is required but is taken in the first semester of graduate work.

The Logopedics undergraduate major does not prepare a person for certification by the American Speech and Hearing Association. A.S.H.A. membership requires the Master's degree (or equivalent) with major emphasis in speech pathology and/or audiology in a well-integrated program of 60 semester hours.

**Minor:** The minor consists of 15 hours. Arrangements for the minor should be made in consultation with the Logopedics Department.

Logopedics 111 and 212 may be transferred to the College of Liberal Arts as they are non-professional courses.

Corrective training for students with speech or hearing disorders may be arranged with the Institute of Logopedics without charge to regularly enrolled University students.

**SPEECH PATHOLOGY**

**Lower Division Courses**

111. **Introduction to Speech Pathology.** (3). 3R; 1D. General orientation, history of the field, the place of Logopedics among the professions, speech and language disorders commonly found, and application of the border sciences to these conditions.

132. **Introduction to Clinical Procedures.** (2). 1R; 6D. Observation of clinical procedures and normal children.

212. **The Development of Language.** (3). 3R; 1D. Prenatal and post-natal development of the structures involved in speech, and the applications of the development and regression theories to speech disorders. General development of the child from birth to five years, emphasis on speech development. Prerequisite: Sophomore standing, or department consent.

**Upper Division Courses**

315. **Clinical Phonetics.** (3). 3R; 1D. Anatomy of the face, tongue, and mandible. Applied phonetics as it relates to articulatory defects. Prerequisite: Logopedics 111 and 212 with grades of C or better, or department consent.

317. **Techniques of Speech Pathology.** (2). 1R; 6L. Observation of cases in the speech clinic, with emphasis on simpler types of defects. Routine of record taking, interview and counseling techniques with parents and professional workers. The use of graphic equipment. Prerequisite: Logopedics 315 with a grade of C or better, or department consent.

324. **Anatomy of Voice.** (3). 3R; 1D. Anatomy of the larynx, nose, larynx, and thorax. Disorders from organic and functional changes in the organs of phonation. The normal voice. Prerequisite: Logopedics 315 with a grade of C or better, or department consent.

336. **Application of Techniques.** (3). 1R; 6L. Supervised application of techniques to cases with simpler problems. Observation of more difficult communicative disorders. Introduction to techniques used with stutterers and aphasics. Prerequisite: Logopedics 324 with a grade of C or better, or department consent.

415. **Organic Anomalies of Speech.** (3). 3R; 1D. Specific congenital and post-natal anomalies that produce speech disorders, including cleft palate and mongolism. Prerequisite: Logopedics 324 with a grade of C or better, or department consent.

417. **Supervised Practicum in Speech Pathology.** (3). 1R; 6L. Supervised practice teaching including application of advanced techniques to problems of an organic or neurological etiology. Prerequisite: Logopedics 415 with a grade of C or better, or department consent.

421. **Speech Defective Child in the Public School.** (3). Problems of the speech defective child in the schools relative to emotional handicaps, pedagogical retardation, etc. Methods for classroom teachers.

422. **Infancy: Pre- and Post-Natal Behavior.** (2). Development of behavior from the ontogenetic viewpoint in both sub-human and human infants. Prerequisite: Department consent.

450. **Workshop in Logopedics.** (1-4). This course will be offered from time to time on various aspects of speech and hearing habilitation.

461. **Neurology of Cerebral Palsy and Aphasia.** (4). Groundwork of neuro-anatomy and neuro-physiology required for the understanding of conditions resulting from lesions of the nervous system. Prerequisite: Logopedics 315 and 324 with grades of C or better, or department consent.

462. **Cerebral Palsy.** (4). 3R; 3D. Problems and training procedures concerned with cerebral palsy. Prerequisite: Logopedics 461 with a grade of C or better, or department consent.

470. **Laboratory Instrumentation.** (2R; 3D. Application of and limitations of research and clinical instruments employed in the field of Logopedics. Prerequisite: 18 hours of Logopedics or department consent. (Offered in alternate years.)
490. Advanced Logopedics. (2). Individual study and research on specific problems.

Graduate Courses

503. Introduction to Graduate Study. (3). Survey of research in the fields of speech pathology, audiology, and voice science. Principles of research procedure. Prerequisite: Department consent.

507. Early Speech Development. (2). Mastery of various infant speech sounds, patterns of sounds, appearance of words, sentences and meanings. Prerequisite: Department consent.

524. Aphasia. (3). 3R; 3D. Various contemporary theories in regard to the cause and neuro-physiology of aphasia; modern techniques. Prerequisite: Logopedics 461 with a grade of C or better, or department consent.

531. Basic Communicative Sciences I. (3). 3R; 2D. A critical review of pertinent research concerning the physiological bases of speech-respiration, laryngeal, resonatory and articulatory functions. Prerequisite: Logopedics 470 with a grade of C or better, or department consent.

532. Basic Communicative Sciences II. (3). 3R; 2D. A critical review of research dealing with the perception of speech. Emphasis is also given to techniques of speech synthesis and analysis. Prerequisite: Logopedics 470 with a grade of C or better, or department consent.

535. Stuttering. (3). 3R; 3D. Organized and functional approaches to the problem. Prerequisite: Logopedics 461 with a grade of C or better, or department consent.

541. Neurophysiology of Communication. (2). Special lectures, seminars, clinical demonstrations, and independent study. Prerequisite: Logopedics 461 with a grade of C or better, or department consent. (Offered when special instructors are available.)

552. Examination Methods in Speech Pathology. (4). 2R; 8D. The differentiation of logopedics disorders on an objective basis. Prerequisite: Logopedics 461 with a grade of C or better.

560. Seminar in Rehabilitation of Speech and Hearing Handicaps. (3). Rehabilitation of adults with various types of organic problems including cerebral palsy, aphasia, hearing loss or other handicaps resulting from organic impairments. Guest lecturers will sometimes be used and the course content will be influenced by the participant specialization areas of the instructors. (Offered when special instructors are available.)

565. Seminar in Clinical Research. (3). Emphasis is given to a review of recently published research which reflects applicability in the clinical setting. Techniques of experimental design are discussed. Prerequisite: Logopedics 503 with a grade of C or better, or department consent.


590. Doctoral Research. (1R). Required of advanced graduate students not enrolled in Logopedics 576. Prerequisite: Master's degree or department consent. May be repeated.


AUDIOLGY

Upper Division Courses

431. Introduction to Audiology. (3). 3R; 1D. History and scope of the field. Elementary anatomy of the ear, auditory testing. Rehabilitation and training of the deaf and hard of hearing. Prerequisite: Logopedics 315 with a grade of C or better, or department consent.

435. Anatomy, Physiology, and Pathology of the Ear. (3). 3R; 1D. Detailed study of the ear. Prerequisite: Logopedics 451 with a grade of C or better, or department consent.

436. Introduction to Audiometry. (3). 3R; 1D. Techniques and interpretation of hearing tests. Prerequisite: Logopedics 431 with a grade of C or better, or department consent.

437. Speech Reading and Auditory Training. (3). 3R; 1D. Methods of teaching speech reading. Techniques used in auditory training. Prerequisite: Logopedics 431 with a grade of C or better, or department consent.

441. Supervised Practicum in Speech for the Deaf. (3). 1R; 9L. Supervised application of techniques involving the teaching of speech, speech reading and auditory training to the deaf and hard of hearing child. Prerequisite: Logopedics 451 with a grade of C or better, or department consent.

455. Practicum in Audiology. (3). 1R; 9L. Application of audiomteric techniques in clinical situations. Prerequisite: Logopedics 430 with a grade of C or better, or department consent.

Graduate Courses

514. Hearing Aids. (3). 2R; 6D. Speech audiology, assessing the usefulness of residual hearing, the construction and function of hearing aids, principles and procedures in selecting a hearing aid; and adjustment to a wearable instrument. Prerequisite: Logopedics 456 with a grade of C or better, or department consent.

516. Advanced Clinical Audiology. (3). 2R; 6D. Diagnostic procedures in an audiological clinic. Techniques for administration and interpretation of advanced audiometric tests. Prerequisite: Logopedics 436 with a grade of C or better, or department consent. (Offered in alternate years.)

518. Seminar in Audiology. (3). Principles of the psychological dimensions of hearing, function of the normal ear, problems in industrial noise. Prerequisite: Logopedics 436 with a grade of C or better, or department consent. (Offered in alternate years.)

DEAF EDUCATION

Upper Division Courses

432. Introduction to Deaf Education. (3). 3R; 1D. Comparison and contrast of the deaf child with the normal child in the areas of physical, mental, social and personality development. Evolution of educational programs and methods used with the deaf. Special aspects of curriculum development in schools and classes for the deaf. Agencies, professional organizations, and journals concerned primarily with education and rehabilitation of the deaf. Prerequisite: Logopedics 431 with a grade of C or better, or department consent. (Offered in alternate years.)

434. Teaching Language to the Deaf. (3). 3R; 1D. Evolution of methods. Analysis of language problems and teaching techniques. Prerequisite: Logopedics 433 with a grade of C or better, or department consent. (Offered in alternate years.)

438. Teaching Speech to the Deaf. (3). 3R; 1D. Current methods. Evaluation techniques. Prerequisite: Logopedics 433 with a grade of C or better, or department consent. (Offered in alternate years.)

439. Teaching School Subjects to the Deaf. (3). 3R; 1D. A study of the principles, techniques and methods for teaching school subjects to deaf children. The development of reading readiness and reading ability from the point of view of acquiring language facility for achievement in other basic subjects. Prerequisite: Logopedics 433 with a grade of C or better, or department consent. (Offered in alternate years.)

440. Supervised Practicum in Teaching the Deaf. (2). 1R; 6L. Supervised application of techniques involving the teaching of academic material and the development of language for the deaf child. Prerequisite: Logopedics 439 with a grade of C or better, or department consent. (Offered in alternate years.)

MILITARY SCIENCE

U. S. ARMY ROTC

The Army Reserve Officer Training Corp exists to develop college educated officers for the Army and Reserve Components. It enables a young man to
prepare for a position of leadership in either a military or civilian career of his choice. Through ROTC the college man who wants an Army career can earn either a Regular Army or a Reserve commission as an officer in the U. S. Army. This program also enables the man who plans a civilian career to fulfill his military obligation to his country while serving as an officer.

The Army ROTC program, stemming from the National Defense Act of 1916, has been a familiar part of the Wichita scene since 1918, when a detachment was organized at the then Fairmount College of Liberal Arts and Sciences. Army ROTC has been an integral part of the University from that date except for a brief period during WW II when the program was suspended. A new ROTC program was introduced with the adoption by Congress of the Vitalization Act in October 1964. This act continues to authorize the Department of the Army to maintain a Reserve Officer Training Corps Detachment of active duty officers and enlisted men at Wichita State University for the purpose of conducting the senior division ROTC program. Under the provisions of this act the University has elected to offer to undergraduate students two elective ROTC programs which are designated as the Two-Year Program and the Four-Year Program.

**Two-Year Program**

The two-year program is for individuals who have not taken ROTC courses during their freshmen and sophomore years and who have four semesters of work remaining before they qualify for their degree. This program is designed for students transferring to Wichita State University from junior colleges or from four-year institutions where ROTC was not a part of the curriculum. However, WSU students who did not elect to enroll in ROTC as freshmen are also eligible for this program. Applicants for entry into the two-year program are required to complete the officer qualification test and pass a physical examination.

The two-year program begins with a six-week basic summer camp where the student receives instruction in preprofessional educational subjects and in basic military subjects. He will receive pay at the rate of $87.00 per month during this period. Upon successful completion of the basic summer camp the student will be permitted to enroll in the professional course. The professional course is identical for both the two-year and the four-year programs.

**Four-Year Program**

The four-year program is subdivided into the preprofessional course for freshmen and sophomores and the professional course for juniors and seniors. The preprofessional course is educationally oriented and is designed to assist the student officer in obtaining the desired goal of a broad educational base. While this is an elective course, completion of two semesters is required in order to receive the academic credit. The second part, or the professional course, is made up of that education and training in military subjects considered necessary for the student officer to obtain knowledge and skills needed by Army Second Lieutenants. The professional course is centered about a six-week summer camp which the student will attend between his junior and senior years. Summer camp for Wichita State University students is held at Ft. Riley, Kansas, from the last week in June through the first week in August each year and consists of practical field training and fundamental military skills.

The preprofessional course consists of one hour of conference work each week for freshmen, two hours of conference each week for sophomores and one hour of leadership laboratory each week for both freshmen and sophomores. Enrollment in the preprofessional course does not obligate the student to complete the four-year program and it has no effect on the individual's military service obligation. The professional course consists of one hour of conference work and one hour of leadership lab each week for juniors in the fall semester, and for seniors in the spring semester. The requirement is four hours of conference work and one hour of leadership lab per week for juniors in the spring semester and for seniors in the fall semester. Additional college courses are required to augment both the preprofessional and the professional course. Any of the courses currently listed on page 22 of the WSU catalog as "prescribed fields of study," excluding art and music are acceptable. Final course approval will be with the Department of Military Science.

Students may enroll in the professional course of the four-year program if they have completed the preprofessional course or have received credit for this program by virtue of having served in the Armed Forces. If otherwise qualified, credit based on prior service will be determined by the PMS. Applicants for entry into the professional course must be physically qualified for a commission, have a scholastic grade point average of 2.00 or above and must complete prescribed survey and general screening tests. Students enrolled in the preprofessional course are given the Officer Qualification test to determine their eligibility for entry into the professional course. This testing is accomplished by the Military Science Department during two regular classroom instruction periods. Physicals are arranged through Army medical facilities.

Students enrolled in the professional course receive a subsistence allowance of $40.00 per month for a maximum of 20 months, summer camp pay at the rate of one-half of a Second Lieutenant's base pay which will amount to approximately $260.00 and travel pay at the rate of 6¢ per mile for travel to and from summer camp. Total pay and allowance for the period an individual is enrolled in the professional course amounts to about $1200.00. Upon graduation, the Uni-
University presents the commissionee with a uniform and, in addition, when he enters active duty the Army pays him a $900.00 uniform allowance.

A cadet uniform and all required military science texts are furnished without charge to each student. Students may voluntarily participate in the ROTC band, Pershing Rifles, color guard and Military Police group. Students enrolled in the professional course who are mentally and physically qualified may participate in an on-campus pilot training program. This program consists of 35 hours of ground training and 36 hours of flying instruction by an approved FAA school. Individuals completing this training have the opportunity to qualify for their private pilot licenses and they are given Army aviation assignments upon entering active duty.

Any qualified student enrolled at an accredited university or college may enroll in either the two-year or four-year program at Wichita State University with concurrence of the institution heads and the PMS.

Army ROTC Scholarship

The Army ROTC scholarship program is designed to offer financial assistance to outstanding young men in the four-year Army ROTC program who are interested in the Army as a career. Each scholarship provides for free tuition, textbooks and laboratory fees in addition to pay of $50.00 per month for the period that the scholarship is in effect. During a six-week summer training period at the end of the junior year, this pay is increased to $120.00 per month. The scholarships are provided under provisions of Public Law 88-647, the ROTC Vitalize Act of 1964. Students desiring to compete for a four-year scholarship should submit their applications to Commanding General, Fifth, United States Army, ATTN: ALFAC-Z, 1660 East Hyde Park Boulevard, Chicago, Illinois 60615.

Lower Division Courses

F113 & S114. First Year Basic. (1-1). 1C; 1 Leadership Laboratory. Organization of the Army and ROTC; Individual Weapons and Marksmanship; United States Army and National Security. Completion of two semesters is required in order to receive the academic credit.

F223 & S224. Second Year Basic. (1-1). 2C; 1 Leadership Laboratory. Cadet Noncommissioned Officer Training; Map and Aerial Photograph Reading; Operations and Basic Tactics; American Military History. Prerequisite for 223: MS 113 and 114.

Upper Division Courses

F333 & S334. First Year Advanced. (1-4). 1C-4C; 1 Leadership Laboratory. Branches of the Army; Military Teaching Principles; Leadership Principles; Small Unit Tactics and Communications. Prerequisite for 333: MS 223 and 224.

F443 & S444. Second Year Advanced. (4-1). 4C-1C; 1 Leadership Laboratory, Operations; Logistics; Army Administration; Military Law; Role of the United States in World Affairs; Service Orientation. Prerequisite for 443: MS 333 and 334.

MUSIC EDUCATION

Lower Division Courses


139. Methods of Teaching Band and Orchestral Instruments (brass). (1). Procedures and materials for class and private teaching of all brass instruments, emphasizing tone qualities, difference in embouchure, and necessary technique for performance. Band and orchestra laboratory.


201. Fundamentals of Music for the Elementary School. (2). Techniques and materials focused on teaching music in elementary schools. For students primarily interested in teaching music in elementary schools. Includes observation in public schools. Prerequisite: Music education major or consent of instructor.


Upper Division Courses

301. Survey of Elementary School Music. (3). An overview of activities carried on in the elementary school. Includes observation in the public schools. For students primarily interested in teaching music in secondary schools. Prerequisite: Music Ed. 203.

302. Advanced Techniques in Elementary School Music. (2). Organization of the music program in the elementary school. Evaluation of materials, practices, philosophies, and trends in music education. For students primarily interested in teaching music in the elementary school, and for Music minors in the College of Education. Includes observation in public schools. Prerequisite: for Music majors, Music 201 and 303; for elementary education majors with minor in music, Music 200 or 201.


337. Advanced Techniques in Woodwind Methods. (1). (See Music 337.)

339. Advanced Techniques in Brass Methods. (1). (See Music 339.)

340. Advanced Techniques in Percussion Methods. (1). (See Music 340.)

430. Pedagogy of Theory. (2). (See Music 430.)

432. Teaching of Music Literature. (2). (See Music 432.)

484. String Teaching Seminar. (2). Historical development of string instrument teaching. Problems involving traditional and recent techniques, private study versus class study, school class methods, studio methods, etc. Prerequisite: consent of instructor.

487. Piano Pedagogy. (2). Designed to improve the work of the private teacher of piano and to equip pianists to teach piano classes effectively. Techniques and materials. Prerequisite: consent of instructor.

Graduate Courses

521. Elementary Music Supervision. (3). Trends in elementary music education; evaluation of various materials and techniques; special projects in planning and executing a modern program of music supervision. Prerequisite: Music Ed. 302.

531. Developing the Child’s Musical Understanding. (3).

532. Band Rehearsal Laboratory. (2).

535. Seminar in Music Education Materials (Vocal). (2). (See Music 535.)

541-542. Special Project in Music. (1-3; 1-3). (See Music 541-542.)

545. Seminar in Music Education Materials (Instrumental). (2). (See Music 545.)

551. Psychology of Music. (2). (See Music 551.)

552. Introduction to Graduate Study. (3). (See Music 552.)

554. Research Seminar in Music Education. (3). (See Music 554.)


576. Thesis. (2 or 3)

PHYSICAL EDUCATION, HEALTH, AND RECREATION

SERVICE PROGRAM

All P.E. 101 activity courses will meet two class periods each week and will carry one hour credit. Such courses will count toward graduation requirements, but will not replace any required academic hours.

Juniors and seniors may enroll for three hours of physical education per week for one hour of elective credit, not to replace any academic requirements for graduation.

When enrolling in P.E. 101 activity courses, the course numbers are to be followed in sequence to designate the semesters of activity courses already completed.

101, 102, 103, 104. Physical Education for Men. (1 each). Two hours per week to be elected each semester from the following activities:

Group Activities: Touch football, speedball, softball, volleyball, basketball, gymnasion games, and varsity activities.

Individual Activities: Tennis, badminton, handball, golf, bowling, swimming, weight training, social dance, folk and square dance, and adapted physical activities.

Gymnastics: Tumbling, trampoline, and apparatus.

Combatives: Wrestling.

105, 106, 107, 108. Physical Education for Men. (1 each). Two hours per week each semester, except that an additional hour per week will be assigned by arrangement. Prerequisite: P.E. 101, 102, 103, 104.

101, 102, 103, 104. Physical Education for Women. (1 each). Two hours per week to be selected each semester on the advice of the director and physician from the following activities: Archery, badminton, bowling, recreation games, tennis, golf, swimming, life-saving, fencing, gymnastics, tumbling, self-testing activities, body mechanics and basic skills, track, basketball, field hockey, soccer, speedball, softball, volleyball, hiking and outing activities, folk dance, modern dance, theatre dance, social dance, folk dance and square dance, and special restricted activities.

105, 106, 107, 108. Physical Education for Women. (1 each). Meet three hours a week each semester, two hours of activity and one hour of leadership training. Prerequisite: P.E. 101, 102, 103, 104.

PROFESSIONAL PROGRAM REQUIREMENTS

Teachers in Kansas Class A schools in the field of physical education are required to have 24 hours preparation, including 5 hours of health, physiology, first aid, or hygiene, and 10 hours in physical education, which may include teaching methods in physical education.

Major: Required—P.E. 115, 117, 212, 225, 227, 329, 330, and 444. Also P.E. 101, 102, 103, and 104 (service courses) will be required of all majors. In addition to these courses one of the following options must be completed.

Options

(A) (Women) P.E. 202, 203W, 204W, 324, 342W, 343W, 344W, 400, and 442W.

(B) (Men) P.E. 118M, 311M, 312M, 331M, 335, 336, and 337. Men Physical Education majors must pass a Sports Skills Proficiency Examination before being permitted to enroll in P.E. 311M or P.E. 312M.

Minors: Required—P.E. 115, 329, and 330. In addition one of the following options must be completed.

Options

(A) (Women) P.E. 117, 225, 400, and 9 or 10 hours of electives.

(B) (Men) P.E. 118, 225, 311M, 312M, 331M, and 3 hours of electives. Men Physical Education minors must pass a Sports Skills Proficiency Examination before being permitted to enroll in P.E. 311M or P.E. 312M.

(C) (Men and Women—Recreation) Music Ed. 200; P.E. 117, 202, 212, 225, 226, and 426. Minors with this option may be elected in the College of Liberal Arts in accordance with transfer regulations.
(D) (Women—Dance) P.E. 212, 223, 324, 412, 424, and 446. Skill courses: Folk Dance; Elementary, Intermediate, and Advanced Modern Dance; Social Dance; Theatre Dance; or equivalents to be approved by the department.

PROFESSIONAL COURSES

Professional courses for physical education, health, and recreation are offered in the College of Education and, unless otherwise indicated, are open to both men and women. Course numbers followed by M are for men only; by W for women only.

Lower Division Courses

115. Personal and Community Health. (3).

117. First Aid. (2). Standard and/or advanced first aid with certification by the American Red Cross.


203W. Introduction to Physical Education. (2). 2R; 3L. Includes a study of standards, testing procedures, officiating and basic skills.

204W. Body Mechanics and Gymnastics. (2). 2R; 3L. Principles of body mechanics and application to gymnastics including free exercise, tumbling, apparatus, and trampoline.


213. Folk and Square Dance. (2). 1R; 2L. Materials from different countries and teaching methods for high school and recreational groups. Prerequisite: Sophomore standing or department consent.

220M. Rules and Mechanics of Officiating. (2). 2R; 1L. Theory, rules, and mechanics of officiating major sports common to the high school and college athletic program.

223. Introduction to Dance. (2). 2R; 2L. History, philosophy, and basic background work in the field of dance. Prerequisite: One activity course in modern dance.

225. Elementary Play Activities. (3). 2R; 2L. A study of the curriculum and methods of teaching physical activities to elementary children. Includes practice in playing and teaching games in the normal progression used in elementary physical education; and field work with children of elementary school age. Prerequisite: Sophomore standing.

226. Introduction to Community Recreation. (2). A study of the philosophy, origin, and development of modern recreation programs.

227. History and Principles of Physical Education. (3). History, philosophy, aims, and objectives of physical education; survey of a modern program.

Upper Division Courses

300. Driver Education and Training. (5).

311M. Techniques in Physical Education I. (3). 2R; 2L. Emphasis upon development of skill and assimilation of teaching techniques. Activities covered are soccer, golf, bowling, volleyball, tumbling and gymnastics. Prerequisite: Pass the Sports Skills Proficiency Examination in the above activities.

312M. Techniques in Physical Education II. (3). 2R; 3L. Emphasis upon development of skill and assimilation of teaching techniques. Activities covered are wrestling, badminton, tennis, and baseball. Prerequisite: Pass the Sports Skills Proficiency Examination in the above activities.

324. Methods in Modern Dance. (2). Teaching techniques and composition of materials for teaching dance in educational programs. Prerequisite: One semester modern dance and one semester of folk dance or equivalent.

329. Applied Human Anatomy. (3). 3R; 1L. A study of the structure and function of the skeletal and muscular systems of the human body with direct application to body movements in physical activities. Prerequisite: Biol. 101 or consent of department.

330. Kinesiology. (3). 3R; 1L. The study of human motion by means of muscular and mechanical analysis. Prerequisite: P.E. 329 with a grade of C or better or department consent.

331M. Athletic Injuries and Training Techniques. (2). 2R; 1L. Injuries common to athletic activities, emphasizing prevention, first aid, treatment and care as prescribed by the team physician.

335M. Football Theory and Organization. (2). Advanced theory of team play, organization and management of competition, etc. Prerequisite: Phys. Ed. 118 or concurrent enrollment.

336M. Basketball Theory and Organization. (2). Theory of basketball, including methods of teaching fundamentals, individual and team offense and defense, various styles of play, and methods of coaching. Prerequisite: Phys. Ed. 118 or concurrent enrollment.

337M. Theory and Organization of Track and Field Athletics. (2). Selection of personnel, conditioning, training, and techniques. Prerequisite: Phys. Ed. 118 or concurrent enrollment.

342W. Advanced Techniques in Sports. (2). 2R; 2L. Techniques and teaching progressions in seasonal sports, study of rules, duties of officials, organization of classes and contests, educational management. Soccer, speedball, softball, volley-ball. (Prerequisite: Student must complete skill requirements in each of the above sports as established by the department.)

349W. Advanced Techniques in Sports. (3). Continuation of 342. 3R; 2L. Basketball, golf, bowling, swimming. (Prerequisite: Student must complete skill requirements in each of the above sports as established by the department.)

344W. Advanced Techniques in Sports. (3). Continuation of 342W and 343W. 3R; 2L. Hockey, archery, badminton, tennis. (Prerequisite: Student must complete skill requirements in each of the above sports as established by the department.)

400. Health Education. (2 or 3). Health problems and organization of materials for health instruction. Individual projects for graduate students.

412. Methods and Materials in Folk and Square Dance. (2). 2R. Materials selected from American and European countries and teaching methods for schools and recreational groups. Will include outside preparation dealing with source materials and methods. Prerequisite: P.E. 212 or consent of department.

424. Creative Dance in the Schools. (2). Discussion and laboratory work with emphasis on appropriate and sincere expression. Class work, reading, and observation of selected groups.


456. Camp Administration. (3). Modern practice in camp organization, program-building, business practices, staff training and guidance. Problems in camp administration.

444. Organization and Administration of Health and Physical Education. (3). The organizational and administrative problems of health and physical education programs at the high school level; the aims and objectives, management of athletics, the physical plant, intramurals and administrative policies.

446. Dance Composition and Production. (2). Prerequisite: P.E. 212 and 324 or consent of department.

455. Human Design and Movement Behavior. (3). Survey of the general organization of the human in terms of structure, function, and purposeful behavior. Discussion of methods and concepts with reference to evolution of man as tool-maker. Prerequisite: Consent of Department.
492. Applied Health I. (2). Introduction to public health problems and practices. Field excursions arranged. Prerequisite: Department consent.

496. Applied Health II. (2). Intensive study of selected health problems with regard to illness prevention and the present state of world health. Prerequisite: Phys. Ed. 495 or department consent.

Graduate Courses

500. Recent Literature in Health, Physical Education, and Recreation. (3). Survey and critical analysis of research and other pertinent materials in the field.

510. Adapted Physical Education. (3). Philosophy, principles, and methods of adapting physical education and recreation activities to the needs of the handicapped and the exceptional individual; laboratory experience. Prerequisite: P.E. 330 or consent of department.

512. Advanced Techniques in P.E. (3). Comprehensive coverage of selected physical activities with special emphasis on class procedures. Laboratory experiences.

520. Foundations of Physical Education. (3). Examination of the philosophical and biological basis for physical education.

525. Physical Education in Elementary Schools. (2). New concepts, recent trends, methodology, programming, and supervision. For the elementary teacher and physical education specialist.

530. Tests and Measurements in Physical Education. (3). Methods of test construction, critical analysis of published devices, utilization of tests.


550. Analysis of Motor Skills. (3). Techniques of analyzing fundamental motor skills. Selected mechanical principles; fundamental motor skills analyzed in terms of the stated mechanical principles. Prerequisite: P.E. 330.


SECONDARY EDUCATION

Upper Division Courses

311 & 312. Home Nursing for Instructors. (2-2). May not apply on secondary education requirements. Methods, procedures, and techniques for teaching home nursing, maternity, and infant care. Prerequisite: Registered Nurse (R.N.), home economics teacher.


A—Art Education in the Secondary Schools. (Same as Art Ed. 442.)

B—Field and Laboratory Methods in Biology.

D—Methods of Teaching Speech and Dramatic Art.

E—The Teaching of English. Preparation for student teaching of English composition, grammar, and literature. Required of all English majors expecting to teach in junior and/or senior high schools, and strongly recommended for all English minors expecting to teach English in junior and/or senior high schools. Prerequisite: Completion of the requirements of the English Department for English majors and minors planning to teach English in junior and/or senior high schools.

PL—The Teaching of Foreign Languages. Methods of teaching foreign languages, based on the audio-lingual approach and applied linguistics contrasted with traditional methods. Laboratory techniques, transition into reading and writing, planning, evaluation of student progress. Required of all foreign language majors expecting to teach in junior and senior high schools; strongly recommended for all minors expecting to teach.

H—Methods of Teaching the Social Studies in Secondary Schools. Preparation for student teaching in history, political science, economics, sociology and psychology. Meaning and content of the broad field of the social studies, materials for instruction, preparation of teaching units, and evaluating instruction and student progress in the social studies.

I—Methods of Teaching Industrial Education. Selection and arrangement of teaching content, methods of teaching, lesson planning, courses of study, testing and grading shop work, evaluating pupil progress, securing industrial arts positions, and professional responsibility of the shop teacher.

M—Methods of Physical Education. Presentation and participation in methods of teaching physical education. Emphasis on techniques, skills, organization of activities, and classroom procedure. For men only.

S—Special Methods of Business Education. Prerequisite: Sec. Tr. 234 or Data Processing, Sec. Tr. 237, Acctg. 193 and 194.

W—Methods of Physical Education in Secondary Schools. Organization of activities in the curriculum; classroom procedures, evaluation techniques. Observation of selected classroom work. For women only.

Student Teaching

The student teaching semester is required of all those who are working toward a Secondary Certificate, and is a full-time assignment. Applications for approval to enroll in this program must be made to the Director of Student Teaching by the middle of the term prior to the semester of enrollment. In addition, students must obtain approval from the department in which they wish to student teach before placement will be considered.

It is expected that students will student teach in their field of major interest. However, individuals who are well prepared in more than one field may apply to student teach in a second field. Those desiring to student teach in two fields must take the special methods course in the second field before entering the student teaching semester.

The assignment for student teaching begins with the opening of the public school semester, and enrollees must arrange to meet from 8 to 5 daily and to be available for selected evening programs throughout the semester.

Credit for the student-teaching semester will be entered on the transcript according to the following distribution:


Sec. Ed. 445. Methods in Teaching. (4). (Two of the four hours may be earned in Sec. Ed. 442.)


450. Workshops in Education. (1 to 4).

452. Special Studies in Education. (1-3). (a) Mathematics, (b) health and physical education, (c) language arts, (d) reading, (e) recent innovations, (f) science, (g) social studies, (h) other areas. Course designed for secondary school teachers. Only one pre-selected area will be emphasized during a semester. (Prerequisite: Teacher certification.) This course may be repeated with advisor's consent.
Graduate Courses

530. Special Problems in Education. (1 to 4). Directed reading and research under supervision of a graduate instructor. Prerequisite: Department consent.

537. Seminar in Secondary Education. (3).

SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION

Lower Division Courses


Upper Division Courses

425. History of Education. (3). Education's career in relation to other institutions (political, religious, etc.) in promoting and inhibiting social change.

426. Comparative Education. (3). Educational systems of selected nations in terms of their unique structures and pervasive problems.

427. Educational Sociology. (3). Sociology for teachers in conception as the discipline which studies education and its place as one of the institutions of society. Attention is given to the contributions of sociology and anthropology to the understanding of human behavior. Prerequisite: Fd. Ed. 232. (Not open to those who have had Fd. Ed. 426.)

428. Social Aspects of Education. (3). (Part of the Secondary Student Teaching Block. For description, see Fd. Ed. 427 above.)

429. Philosophy of Education. (3). Introduction to the analysis of concepts such as mind, experience and knowledge in their relationship to educational problems and practices and to philosophical systems. Prerequisite: Fd. Ed. 232 or Philos. 121.

449. Project in Educational Anthropology. (3). A course dealing with the basic concepts of anthropology and their application to social science units in elementary and secondary schools. Explores the nature of sub-cultures in American society and the problems they pose for the classroom teacher. A course for education majors and graduate students. (This course will also be listed as Anthropology 449.)


459. Theories of Knowledge and the Curriculum. (3). What does it mean to "know" in the various curriculum areas, and what methods and measurements are implied? Prerequisite: Fd. Ed. 429 or consent.

Graduate Courses

529. Educational Classics. (3). Depth study of master works, ancient and modern, in education. Prerequisite: Consent of instructor. Prerequisite: 6 hours of Fd. Ed.

534. Basic Concepts of Citizenship. (3). Basic principles of citizenship as found in great treatises, are discussed in the context of the democratic American tradition. Prerequisite: 6 hours of Fd. Ed.

- Prerequisites may be waived for equivalent experience by department consent.

STUDENT PERSONNEL AND GUIDANCE

Upper Division Courses

423. Principles and Philosophy of Guidance. (3). The development of a guidance philosophy and a survey and study of the several guidance services that are part of the modern elementary and secondary school guidance program. Prerequisite: Ed. Psy. 233 or 333, or equivalent.

Graduate Courses

503. Counseling Theory. (2). A study of selected theories of counseling. Prerequisite: SPC 423 or concurrent enrollment.


523. Psychometric Procedures in Counseling. (3). Survey and study of standardized tests and their application in counseling with an emphasis on their selection, use, and interpretation. Study of the basic concepts pertaining to the interpretation of psychological tests and inventories including basic measurement theory and the factors involved in the selection of tests. Prerequisite: SPC 423 or concurrent enrollment.

524. Techniques of Counseling. (3). Through simulated counseling situations and extensive examination of counseling case studies techniques of counseling are examined and practiced. Prerequisite: SPC 503.

525. Group Guidance. (2). Laboratory approach to the study of group formation, process, and communication as a tool for guidance services. Prerequisite: SPC 423.

533. Administration of Guidance Services. (2). Administration theory with emphasis for the SPC major on relating theory to the problem of administration of guidance services. Prerequisite: 3 hours SPC including 423.

555. Individual Intelligence Testing in the Public School. (3). Use of individual tests for appraisal of intelligence. Prerequisite: Ed. Psy. 500 or 561, SPC 523 or concurrent enrollment, and consent of department.

556. Practicum in Counseling. (3). Supervised practice in counseling. Prerequisite: SPC 524 and consent of instructor.

557. Seminar in Guidance. (1). (May be repeated.) Prerequisite: Consent of instructor.

558. Advanced Individual Testing. (3). Administration and interpretation of apperceptive tests and sociometric devices selected for their applicability to the public schools. Prerequisite: Ed. Psy. 500 and SPC 555.


- Prerequisites may be waived for equivalent experience by department consent.
WALTER J. DUERKSEN FINE ARTS CENTER provides outstanding music training facilities and a concert hall which is the scene of numerous musical and dramatic attractions.
DEPARTMENT OF ART

The Department of Art offers professional courses designed to train and educate art students who are planning careers in the arts, and to allow students in other colleges to gain an understanding and appreciation of art.

Two undergraduate degrees are offered by the Department of Art: (1) The Bachelor of Fine Arts with major study in the following areas: Painting, Printmaking, Ceramics, Metalsmithing, Advertising Design. Minor study is available in Sculpture, Art History, Fashion Illustration. (2) The Bachelor of Art Education which includes the state requirements for secondary certification.

ADMISSION

All entering freshmen will be enrolled in the University College. Upon completing 24 semester hours of specified courses with a minimum grade point average of 1.7 or upon completing 64 or more semester hours with a minimum grade point average of 2.00 the student is eligible to enroll in the Department of Art.

Transfer students may enroll in the Department of Art if transcript indicates that student has completed a minimum of 24 semester hours with a grade point average of 2.000 or higher. Transfer students unable to meet this minimum requirement will be enrolled in University College until this requirement is met.

Freshmen who elect to major in art should indicate this on the Application for Admission form by placing a mark opposite the words “College of Fine Arts” and by writing the word “Art” directly below.

REQUIREMENTS

BACHELOR OF FINE ARTS DEGREE

In addition to the scholastic and residence requirements for graduation from the University, candidates for this degree must complete the following: (1) A minimum of 40 hours of art, (2) 32 hours of teacher education to include 13 hours of art education, (3) General education: 53 hours of required courses in Liberal Arts plus 4 hours of physical activities. Specific requirements are on file in the Art Office.

ART MAJOR OR MINOR FOR STUDENTS IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

Major: Students will complete 38 art hours. These hours will be distributed as follows: 101, 102, 305, and 15 hours elected from 303, 401, 403, 406, 461, 462; 141 and 9 hours elected from 267, 271, 272, 275, 276, 295; or 142 and 9 hours elected from 279, 280, 281, 282, 285.

Minor: Students will complete 20 art hours. These hours will be distributed as follows: 141 or 142, 101, 102 and 9 hours of electives.

Specific graduation requirements of the College of Liberal Arts are listed on page 41.

GENERAL REQUIREMENTS

The art courses which will fulfill the core curriculum requirements for graduation are the following: 101, 102, 303, 305, 401, 406, 461.

The Department controls all art work or essays submitted for credit by the student and reserves the right to select certain pieces for the permanent Art Department Collection.

All art materials, with the exception of certain permanent studio equipment, are furnished by the individual student.

ART COLLECTIONS OF THE UNIVERSITY

The Department of Art manages four collections of paintings, prints, sculpture, and pottery. The Art Department Collection which includes works by Marc Chagall, Johnny Friedlander, Goya, Stanley W. Hayter, and Anthony van Dyck as well as graduate and undergraduate student work. The Bloomingdale Collection comprises an important group of paintings from such masters as Sir William Beechey, Thomas Cole, Sir Peter Lely, and examples from the schools of Hubert Robert and Jacob van Ruisdael. The University Collection includes a wide range of 20th century American painting, sculpture, and pottery.

GRADUATE ART STUDIES

The Graduate School offers a program leading to a Master of Fine Arts or a Master of Arts. For information concerning requirements for entrance and curriculum see Art listings in the Graduate School Bulletin.
ART CURRICULUM

Lower Division Courses


102. History of World Art II. (3). A survey of world art from the 16th century through the mid 19th century.

141. Basic Art I. (3). A studio course in visual fundamentals as they apply to two dimensional art. Restricted to students with art major intent.

142.* Basic Art II. (3). Continuation of Art 141 with added problems in color, design, and composition. Restricted to students with art major intent. Prerequisite: Art 141.

241. Art Education in the Elementary School. (3). (See Art Education 241.)

242. Handcraft Methods. (3). (See Art Education 242.)

250 & 251.* Introduction to Crafts I & II. (3-3). Basic introduction to craft materials and methods. Investigations in weaving, fabrics, stained glass, etc. Prerequisite: Art 142.

267 & 268.* Life Drawing I and II. (3-3). Drawing from life with emphasis on figure construction. Anatomy sketches books and portfolios required. Prerequisite: Art 141 and 142.


272.* Painting II. (3). An introduction to watercolor painting in both transparent and opaque media. Prerequisite: Art 271 and 142.

275.* Printmaking I. (3). Basic intaglio methods (etching, engraving, soft ground, aquatint, and mixed techniques). Prerequisite: Art 141 and 142.

276.* Printmaking II. (3). Basic intaglio methods and introduction to relief printing. Prerequisite: Art 141 and 142.

279.* Metalsmithing I. (3). Design and construction problems in metals. Stress placed on basic metalsmithing methods.

280.* Metalsmithing II. (3). Design and construction problems in metals. Stress placed on basic metalsmithing methods, lapidary and enameling.

281.* Ceramics I. (3). Experience in hand building, wheel throwing, glazing, and firing of the kiln; ceramic techniques.

282.* Ceramics II. (3). Experience in wheel throwing, glazing, and firing of the kiln.


295.* Lettering. (3). A study of hand lettering and type. Emphasis on formation of characters, spacing, and techniques of professional lettering for advertising. Prerequisite: Art 141 and 142.

297.* Layout. (3). Introduction to advertising theory and visual communication. Fundamentals of respective functions of copy, art, plans, and media in advertising. Production principles. Prerequisite: Art 295.

Upper Division Courses

303. American Art. (3). The history of American art from 1700 to the present.


367 & 368.* Life Drawing III and IV. (3-3). Continuation or Art 267 or 268. Prerequisite: Art 267 or 268.


375.* Printmaking III. (3). Introduction to lithography; intaglio and combined printmaking techniques. Prerequisite: Art 275 or 276.

376.* Printmaking IV. (3). Optional or combined printmaking techniques, black and white and color. Prerequisite: Art 275 or 276.

379.* Metalsmithing III. (3). Jewelry making, raising, forming, and casting in silver. Exploration of processes of working precious metals. Prerequisite: Art 279 or 280.

380.* Metalsmithing IV. (3). Continuation of Art 379. Prerequisite: Art 279 or 280.

381.* Ceramics III. (3). Special emphasis on the chemistry of glazes and clay bodies. Prerequisite: Art 281 or 282.

382.* Ceramics IV. (3). Continuation of Art 282. Prerequisite: Art 281 or 282.

385 & 386.* Sculpture II and III. (3-3). Execution of major projects in wood, stone, metal and clay. Prerequisite: Art 255.

397 & 398.* Fashion Illustration I and II. (3-3). Development of the fashion figure for use in advertising. Interpretation of varied textures of furs, fabrics, leathers, etc. Problems in layout peculiar to fashion advertising. Work in media for newspaper and magazine reproduction. Prerequisite: Art 267, 268, 272, and 297.


397.* Advertising Illustration I. (3). A study in the techniques of illustration as used in the contemporary commercial arts; practical problem-solving. Prerequisite: Art 267, 268, 272, and 297.

398.* Delineation. (3). Theory of one, two, and three-point perspective, followed by extensive application involving background, objects, and figures. Examination and exploration of the artist's materials. Prerequisite: Art 267, 268, 272.

401. The Renaissance. (3). The schools of architecture, painting, and sculpture.

403. Latin American Art. (3). A survey of the arts of Spanish and Portuguese America from 1490 to 1940.

405. Special Art Project. (2 or 3). For qualified upper division art students. Consists of an original research project in the Fine or Applied Arts. May be repeated once for credit.

406. Art Curricular and Supervision Method. (3). (See Art Education 406.)

442. Art Education in the Secondary School. (4). (See Art Education 442.)


467 & 468.* Advanced Drawing I and II. (3-3). Drawing in any medium, field and studio work. Group criticism. Prerequisite: 3 semesters of life drawing.

471 & 472.* Painting V and VI. (3-3). Continuation of Art 272. Prerequisite: Art 271 and 272.

475 & 476.* Printmaking V and VI. (3-3). Continuation of Art 375 and 376. Specialization in the use of combined methods in color printing and in black and white. Prerequisite: Art 275 or 276.
479 & 480.* Metalsmithing V and VI. (3-3). Continuation of Art 380. Advanced projects in design and construction of forms in silver and other metals. Prerequisite: Art 279 or 280.

481 & 482.* Ceramics V and VI. (3-3). Continuation of Art 382. Prerequisite: Art 281 or 282.

485.* Sculpture IV. (3). Continuation of Art 386. Prerequisite: Art 285.

487 & 488.* Fashion Illustration III & IV. (3-3). Continuation of Art 388. Prerequisite: Art 387 or 388.

493-494* Advertising Design III & IV. (3-3). Continuation of Art 394. Prerequisite: Art 394.

497.* Advertising Illustration II. (3). Continuation of Art 397. Prerequisite: Art 397.

Graduate Courses

500. Methodology in Art Research. (3). Investigational procedures in art research; significant ideas and directions in art literature; principles of thesis writing; research design and creative thesis project.

503 & 504. Research Problems in Art History and the Philosophy of Art. (1-3, 1-3).

505 & 506. Special Problems in Painting. (1-5, 1-5).

507 & 508. Special Problems in Printmaking. (1-5, 1-5).

509 & 510. Special Problems in Sculpture. (1-5, 1-5).

511 & 512. Special Problems in Ceramics. (1-5, 1-5).

513 & 514. Special Problems in Silversmithing. (1-5, 1-5).

515-516. Special Art Projects. (1-5, 1-5). May be taken in the following areas: (a) Painting, (b) Printmaking, (c) Ceramics, (d) Sculpture, (e) Silversmithing. Individual areas may not be repeated for credit.

517 & 518. Special Problems in Art Education. (1-3, 1-3).

531-532. Special Problems in Drawing. (1-5, 1-5).

570. Seminar in Advanced Criticism. (3).

572. Seminar in Art Education. (3).


577-578. Terminal Project. (1-5, 1-5). A course specifically designed for those pursuing option (a), terminal project, in the M.F.A. program.

* Prerequisite may be waived by department consent.

SCHOOL OF MUSIC

WALTER DURESEN, M.M., Dean

The School of Music provides courses, programs, and curricula which are designed to train and educate serious music students who are planning careers in the music profession, and to allow students in other colleges to gain an understanding of music as a humanistic study. Recitals by students, faculty, and guests, augment the over-all community programs in the Fine Arts. The School of Music is an accredited member of the National Association of Schools of Music. Requirements for entrance and graduation are in accordance with its published regulations.

Two undergraduate degrees are offered by the School of Music: (1) The Bachelor of Music Education degree contains a minor in education meeting the state requirements for the secondary three year cer-

tificate and degree three year elementary certificate. An option within this degree is the Bachelor of Music Education degree, Vocal Emphasis, which is offered to satisfy the needs of the student whose chief performing medium is voice or piano, and who plans to enter the field of vocal music teaching in the public schools; (2) The Bachelor of Music degree may emphasize piano, organ, voice, orchestral and band instruments, or theory as the major area of concentration.

REQUIREMENTS

ADMISSION

All entering freshmen will be enrolled in the University College. Upon completing 24 semester hours of specified courses with a minimum grade point average of 1.700 the student is eligible to enroll in the School of Music; students transferring with 64 or more semester hours must have earned a 2.000 grade point average.

Transfer students may enroll in the School of Music if transcript indicates that student has completed a minimum of 24 semester hours with a grade point average of 2.000 (C) or higher. Students with grade average of 1.700 and less than 2.000 may petition for admittance to the School of Music. Transfer students who do not meet this minimum requirement will be enrolled in the University College until this requirement is met.

Majors in music must demonstrate performance ability on one instrument or voice to the satisfaction of the music examining committee following registration.

Entering students unable to meet applied music requirements will be enrolled in Applied Music 10 until they attain proficiency necessary to meet the requirements of Applied Music 11. Prospective students are urged to contact the School of Music office with regard to dates when ACT and other tests will be administered. The results of these tests are utilized for counselling purposes.

Freshmen who elect to major in music should indicate this on the Application for Admission form by placing a mark opposite the words "College of Fine Arts," and by writing the word "Music" directly below. This will provide the student with a faculty advisor from the School of Music staff.

For additional details write to the School of Music, Wichita State University, Wichita 8, Kansas.

PROFICIENCY EXAMINATIONS

In order to determine the status of all students in applied music, proficiency examinations will be given following the registration period. Thereafter, repertoire cards will be maintained, recording the student's progress each semester. Proficiency examinations in music theory will also be given new students. Those deficient will be required to enroll in remedial work until competency has been attained.
MUSIC MAJOR IN THE COLLEGE OF LIBERAL ARTS

Students in the College of Liberal Arts who wish to major in music are required to elect 40 hours as specified in the following areas and course listings:

GROUP I
Music Literature and History .................................................. 9 hours
113-114, 331-332.

GROUP II
Music Theory ................................................................. 16 hours
127-128, 129-130, 227-228, 229-230.

GROUP III
Counterpoint .................................................... 2 hours
361.

GROUP IV
Conducting, Orchestration and Choral Arranging ............... 4 hours
217 or 218 and 441 or 445.

GROUP V
Applied Music .......................................................... 5 hours
Voice, Piano, Organ or Solo Orchestral Instrument.

GROUP VI
Ensemble .............................................................. 4 hours
Select in consultation with adviser.

GROUP VII
Electives from the areas of Music Literature, Music Theory, Counterpoint, Conducting, Orchestration, and Choral Literature ................................................................. 4 hours

A total of 128 credit hours is required in this program. Competence in performance in one medium in applied music must equal performance of music major at termination of freshman year.

MUSIC MINOR IN THE COLLEGE OF LIBERAL ARTS

A music minor in Liberal Arts consists of 18 hours selected from the following: Music 127-128, 129-130, 161, 227-228, 229-230, 323, 331, 332, a maximum of 4 hours of ensembles and a maximum of 4 hours in applied music. Students who choose to utilize 4 hours of applied music must meet the requirements of Applied Music II.

MUSIC MINOR IN THE COLLEGE OF EDUCATION

A teaching minor in music for students in the College of Education consists of 17 or 18 hours comprised of the following courses: Music 200 or 201 (at discretion of instructor—200 recommended for students with limited musical background), 127-129, 113 or 161 or 2 hours of ensembles (vocal or instrumental), 302, 4 hours voice, 4 hours piano.

GRADUATION REQUIREMENTS

BACHELOR OF MUSIC DEGREE REQUIREMENTS

(1) General graduation requirements of the University, see page 22.

(2) Music requirements for Bachelor of Music in Theory:

Applied Music:
Chief performing medium .................................. 16 hours
Second performing medium .................................. 4 hours
(One of these must be piano.)

Theory and Composition:

History and Literature of Music:
Music 113-114 and 331 & 332 .......................... 9 hours

Conducting:
Music 217 or 218, and 451 ................................. 4 hours

Ensembles .................................................. 10 hours

Electives (Music or non-music courses) .................. 8 hours
Recital attendance for 8 semesters.

(3) Music requirements for Bachelor of Music in Performance (Instrumental major).

Applied Music:
Chief performing medium .................................. 24 hours
Second performing medium .................................. 4 hours

Theory:
Music 127-128, 129-130, 227-228, 229-230, 323, 321, and 441 .......................... 18 hours

History and Literature of Music:
Music 113-114 and 331-332 .......................... 9 hours

Conducting:
Music 217 or 218 and 451 or 491 ...................... 4 hours

Ensembles .................................................. 12 hours

Electives (either music or non-music courses)* .......... 11 hours

Senior Recital .................................................. 1 hour

Attendance at specified number of recitals per semester for 7 semesters plus senior recital.

(4) Requirements for Bachelor of Music in Performance (Vocal major).

Humanities:
Music 113-114, 331-332 .......................... 9 hours

Foreign Languages ........................................ 20 hours
French 111-112,
German 111-112,
Italian 111-112.
(10 hours in each of 2 of the above 3 languages.)

Applied Music:
Voice .................................................. 24 hours

Piano ** .................................................. 4 hours

Theory:
Music 127-128, 129-130, 227-228, 229-230, and 323 ........................................ 14 hours

Music 218 .................................................. 2 hours

Voice Pedagogy and Repertoire .......................... 5 hours

Music 425, 428.

Electives in upper division Theory, Conducting or Choral Materials .................................................. 4 hours

Ensembles .................................................. 12 hours

Senior Recital .................................................. 1 hour

Attendance at specified number of recitals per semester for 7 semesters plus senior recital.

* Music 381 and 382 required of piano majors. Music 397 and 398, 497 and 498 required of organ majors.
** Study in another instrument may be substituted if student meets proficiency in Piano 22.

BACHELOR OF MUSIC EDUCATION DEGREE REQUIREMENTS

(1) The following program fulfills both the University general requirements for graduation and the Kansas State Certification requirements and is required of all Bachelor of Music Education degree candidates enrolled in the instrumental/vocal emphasis program:
Mathematics and Natural Sciences .................................. 12 hours

A minimum of 4 hours must be a laboratory science. Courses must be taken in at least 2 of the following 3 subdivisions: (1) Mathematics; (2) Physical Science; (3) Biological Science.

Communications .................................................. 8 hours

English 111 & 211, 6 hrs.; Speech 111, 2 hrs.

Humanities ....................................................... 12-15 hours

Fine Arts: Music 113, 331 & 332 7 hours
Literature (English or Foreign Language) 4 hours
Electives from History, Philosophy, Religious Education, or American Civilization as listed in the University Requirements for Graduation 1-3 hours

Social Sciences .................................................. 9-12 hours

Economics 221 or Political Science 100, 121, or 211 3 hours
Psychology 111 3 hours

Sociology and Anthropology 111 or 124 3 hours
(For State Certification, History may be added to this area.)

Physical Activities .............................................. 4 hours

Air Science, Military Science, Physical Education, or Marching Band (4 hours in Marching Band required of all wind and percussion majors). At least 2 hrs. must be in one subdivision.

Electives in non-music courses 6 hours

To be selected from Mathematics and Natural Sciences, Communication, Humanities or Social Sciences.

Education ......................................................... 31 hours

Ed. Psych. 333, 433 * 6 hours
Fd. Ed. 232 and 428 * 6 hours

Special Methods: Music Ed. (Elementary) 201, 302 and 303 (201 and 303 must be completed before student-teaching); or (Secondary) 203, 304 and 301 (304 must be completed before student-teaching). In addition, 6 hours of instrumental music methods 13 hours

Elementary Education 447 * 8 hours
Secondary Education 447 * 3 hours

Music ............................................................. 50 hours

Applied Music:
Chief performing medium 8 hours
Second performing medium 2 hours
Theory: Music 127-128, 129-130, 227-228, 229-230, 323, 441 or 445 20 hours
Conducting: Music 217 or 218 and 451 or 491. 4 hours

Ensembles 14 hours

(Football Band may be counted either as an ensemble or as physical education, but not both.)
Recital attendance for 7 semesters plus senior recital.

History of music.**

Music 331 & 332 ................................................ 5 hours
* These courses to be taken concurrently during the student-teaching semester.

** Utilized to fulfill music and humanities requirements.

Bachelor of Music Education (Vocal Emphasis)

The following program is required of all Bachelor of Music Education degree candidates (Vocal Emphasis):

(1) 52 semester hours of music from the following courses:

Applied Music 12 hours

Chief performing medium, minimum Piano 22 or Voice 22 8 hours
Second performing medium, minimum Piano 20 or Voice 20 2 hours

Theory 20 hours

127-128, 129-130 ............................................. 8 hours
227-228, 229-230 ............................................. 8 hours
323 ............................................................ 2 hours
445 ............................................................ 2 hours

Conducting .................................................... 4 hours

217 or 218 and 451 or 491.

Ensembles ..................................................... 10 hours

(Five hours must be in vocal ensembles. Recommended that 2 hours be in Piano Accompaniment or Chamber Music Performance.)

Music Electives ................................................ 6 hours

(May not be in applied music.)

Recital Attendance for 7 semesters plus senior recital.

(2) 54 semester hours of general education (including 5 hours of music history and 2 hours of music literature).

(3) 25 semester hours of professional education (including 7 semester hours of music education).

GENERAL MUSIC REQUIREMENTS

(1) For a student studying in his chief performing medium, participation in a studio recital is expected each semester when that student attains an Applied Music classification of 11 or above.

(2) Attendance is required for a specified number of recitals and concerts sponsored by the School of Music. The recital requirements for each semester are specified at the first recital following registration.

(3) Seniors will be required to attend 9 specified recitals during the semester in which they are enrolled in student teaching.

(4) Each student shall be required to declare a performance medium, and in this major area he shall be required to present a public or jury recital. A jury recital is performed before at least 3 faculty members.

Each student is to present to an examining committee, at the end of his junior year, a projected senior recital program. It shall be the function of the examining committee to determine at this time: (1) the suitability of the projected program; (2) the capability of the student to perform this program publicly; or (3) whether this program shall be performed before a faculty jury.

(5) Music education students should plan on one summer's work to enable them to realize full benefits of the four-year curriculum. Students majoring in this field are encouraged to continue the study of their chief performing medium during the full four years.

(6) A specified number of ensembles is required of all students according to degree requirements described above. Specific ensembles must be scheduled in consultation with faculty adviser.

Although eight hours is the minimum requirement for an applied major, it is understood that no graduating senior may prepare or perform the graduation recital without the guidance of a full-time staff member. In the event the eight hours are earned prior to the recital presentation, the student is expected to audit the applied major during the preparation for recital performance.

(7) Prior to graduation, candidates in various phases of applied music must pass an examination on the list of materials from the outline below:

Candidates for the degree of Bachelor of Music Education must pass an examination in Piano 10 not later than their sophomore year; pass an examination
in the chief performing medium on the materials listed under Piano 22, Organ 22, Voice 22, Band and Orchestral Instruments 22; second and third performing mediums, Piano 10, Organ 10, Voice 10, or Band and Orchestral Instruments 10. Total number of hours of applied music shall equal 12. Minimum applied music requirements are as follows: Voice Majors—Voice, 8 hours; Piano, 2 hours; Elective, 2 hours. Piano or Organ majors—Piano or Organ, 8 hours; Voice, 2 hours; Elective, 2 hours. Instrumental majors—Instrument, 8 hours; Piano, 2 hours; Voice, 2 hours. 

Candidates for the degree of Bachelor of Music must, before graduation, be classified as follows: Vocal majors—Voice 42 and Piano 22. Piano or Organ majors—Piano 42 or Organ 42, and Secondary Medium 22. Instrumental majors—Major instrument 42, and Secondary Medium 22.

GRADUATE MUSIC STUDIES

The Graduate School offers a program leading to a Master of Music Education or a Master of Music degree in Performance or Theory. This program may be pursued during the summer session or during the regular fall and spring terms. For information concerning requirements for entrance and curriculum consult the Director of Graduate Music Studies, School of Music, Wichita State University.

APPLIED MUSIC REGULATIONS

A minimum of 10 hours practice per week is required for 2 semester hours credit for applied music in the chief performing medium. Practice rooms are available to all students in the School of Music who are enrolled for any phase of applied music. For practice room fees see departmental fees, page 18.

(1) Applied music instruction at the college level shall be on the University campus with approved music faculty staff.

(2) Any credit for applied music requested on the basis of transfer from other institutions shall be subject to the normal routine of the Committee on Admissions, Advanced Standing, and Exceptional Programs.

(3) Any request for credit for applied music on the basis of instruction received from private teachers shall be subject to the customary examination for proficiency on the part of the student.

CURRICULUM FOR PIANO MAJORS

Piano 10. (1). The student should be able to read at sight hymn tunes and folk songs and be able to play accompaniments of average difficulty; all major and minor scales, arpeggios, and suggested material to be assigned by the instructor taken from technical studies and standard repertoire.

Piano 11-12. (2 to 4—2 to 4). First course for the student who enrolls with piano as a major study. Students admitted by examination only. Suggested quality of material: Bach, Two-Part Inventions or French Suites; Beethoven, Sonata Op. 2 No. 1, Op. 14 No. 1; Chopin, easier Waltzes, Mazurkas, Nocluturnes, etc. Studies and technical material adapted to the needs of the students.

Piano 20. (1). Course designed for choral majors. Special emphasis is placed on developing skill in reading vocal accompaniments and choral scores.


Piano 31-32. (2 to 4—2 to 4). The student should have acquired a technique sufficient to play arpeggios and scales in parallel and contrary motion in rapid tempo. Technical materials and studies adapted to the needs of the student. Suggested quality of materials: Bach, Well-Tempered Clavier; Beethoven, Sonatas Op. 81 No. 2; Chopin, Etudes, Ballades; Brahms, Rhapsodies. Selected works of modern and contemporary composers.

Piano 41-42. (2 to 4—2 to 4). Senior Recital. Must have had considerable experience in ensemble, and be a capable sight reader. Quality of material: Bach, Partitas, Transcriptions; Beethoven, later Sonatas such as Op. 53, Op. 57, or a concerto; larger works of Brahms, Chopin, Ravel or Debussy.

CURRICULUM FOR VIOLIN MAJORS

Violin 10. (1). Studies selected from the following: Karsch, Wohlhirt, Laeuen, Doucet, scales and arpeggios in all keys in the first position; detailed study of shifting and positions; special bowing studies; Concertos by Sitt, Rieding, Seitz, DeBeriot, etc.; compositions of intermediate difficulty in the lower positions.

Violin 11-12. (2 to 4—2 to 4). Studies chosen from the following: Secich, Jiannini, Schradieck, Kreutzer, Hoffman; advanced scale and arpeggio technique; detailed study of double stops; Sonatas by Handel, Tartini, Corelli, Veracini; Concertos by Kreutzer, Rode, Viotti; single compositions of a more advanced nature.

Violin 21-22. (2 to 4—2 to 4). Rode and Fiorillo, Etudes, Flesch scale studies; corrective exercises from Jiannini; Concertos by Spohr, Mendelssohn, Bach, Vivaldi; Sonatas by Beethoven, Mozart; Short numbers by romantic and modern composers.

Violin 31-32. (2 to 4—2 to 4). Etudes by Dont, Rode, Wieniawski, continuation of Flesch and Jiannini scale studies; Concertos by Mozart, Wieniawski; Vieixtemps; Sonatas by Mozart, Beethoven, Grieg, etc., concert pieces of Sarasate, Wieniawski, Vieixtemps, Brahms, and modern composers.

Violin 41-42. (2 to 4—2 to 4). Bach solo sonatas; Sonatas by Schumann, Brahms, modern American composers; Concertos by Saint-Saens, Lalo, Bruch, Tschaikowsky, Brahms, etc.; extensive review of program material. Senior recital.

CURRICULUM FOR BAND AND ORCHESTRAL INSTRUMENTAL MAJORS

Band and Orchestral Instruments 10. (1). Ability to demonstrate proficiency equivalent to standards in other applied music subjects. Specific requirements are on file in the music office.

Band and Orchestral Instruments 11-12, 21-22, 31-32, 41-42, (2 to 4—2 to 4 each). Chief performing medium is offered on the following instruments: trumpet, French horn, trombone, percussion, baritone, tuba, flute, oboe, bassoon, clarinet, saxophone, violin, viola, cello, string bass, and harp. An outline of all courses is on file in the music office.

CURRICULUM FOR VOICE MAJORS

Voice 10. (1). The student must demonstrate (1) his ability to sightread simple melodies, (2) a pleasing and interesting tone quality, (3) satisfactory ability into alto, (4) ability to sing one or more songs with proper interpretation.
Voice 11-12. (2 to 4 to 2). Posture, breathing, tone production, diction, interpretation, ability to sing required songs with a well-produced tone, good intonation, clear diction, and musical interpretation.


Voice 21-22. (2 to 4 to 2). More advanced technical studies; remedial training as needed.

Voice 31-32. (2 to 4 to 2). Continued technical development.

Voice 41-42. (2 to 4 to 2). Higher standards of performance in technique and interpretation. Bachelor of Music students will prepare a full concert program. Bachelor of Music Education students will prepare a portion of a concert program.

CURRICULUM FOR ORGAN MAJORS

Organ 11-12. (2 to 4 to 2). Organ major students must demonstrate piano proficiency. The student must continue piano study if advised by the instructor. Technical study will be based on Barnes’ School of Organ Playing and Dupre’s Seventy-Nine Chorales. Study will include the works of the pre-Bach period and the shorter preludes and fugues of J. S. Bach.

Organ 21-22. (2 to 4 to 2). Study will concentrate on the works of J. S. Bach. The pre-Bach composers will be continued, and other material will be used as advised by the instructor. The Liturgical Year of J. S. Bach will receive special emphasis.

Organ 31-32. (2 to 4 to 2). Study of the trio sonatas of J. S. Bach will begin, and further work will include the organ sonatas of Mendelssohn and shorter works by Cesar Franck.

Organ 41-42. (2 to 4 to 2). Senior recital. The study of Bach will continue with the trio sonatas and the larger preludes and fugues. The large works of Franck, and compositions by Brahms and Reger will be introduced. Selected contemporary music by such composers as Sowerby, Dupre, and Messiaen will be used.

MUSIC CURRICULUM

Major: Prescribed courses leading to the degree of Bachelor of Music and Bachelor of Music Education are found on page 98. These schedules must be followed without deviation except by permission of the Dean of the College of Fine Arts.

Music 111-112, 211-212, 311-312, 411-412 (Ensemble), either vocal or instrumental, is a laboratory requirement. Each music student is required to participate in a minimum of specified combinations of the following: (A) orchestra, (B) band, (C) university chorus, (E) chamber music performance, (F) university singers and A Cappella Choir, (G) string ensemble, (H) brass ensemble, (J) piano accompaniment, (K) opera theater, (L) small vocal ensemble, (M) football band, (N) woodwind ensemble, (P) piano repertoire, (Q) percussion ensemble, (R) organ repertoire, (S) string repertoire.

Lower Division Courses

111-112, 211-212. Ensemble. (1-1). (A) orchestra, (B) band, (C) university chorus, (E) chamber music performance, (F) university singers and A Cappella Choir, (G) string ensemble, (H) brass ensemble, (J) piano accompaniment, (K) opera theater, (L) small vocal ensemble, (M) football band, (N) woodwind ensemble, (P) piano repertoire, (Q) percussion ensemble, (R) organ repertoire, (S) string repertoire.

113-114. Introduction to Music Literature. (2-3). Survey of the vocal and instrumental music which has become basic for the background of the serious music student. Designed for music majors or student with advanced music background.

127-128. Harmony. (2-2). Fundamentals of harmonic structure and usage as related to melody. Creative writing and analysis are integral parts of the course.

129-130. Ear Training and Sight Singing. (2-2). Designed to begin training in aural recognition and vocal realization of materials used in music composition. Includes rhythmic, melodic and harmonic dictation, sight singing and improvisation. To be taken concurrently with Music 127-128.

135. Methods of Teaching Orchestral Instruments (violin and viola). (1). (See Music Education 185.) Band and Orchestra Laboratory.

136. Methods of Teaching Orchestral Instruments (cello and string bass). (1). (See Music Education 186.) Band and Orchestra Laboratory.

137. Methods of Teaching Band and Orchestral Instruments (clarinet and saxophone). (1). (See Music Education 157.) Band and Orchestra Laboratory.

138. Methods of Teaching Band and Orchestral Instruments (flute and double reeds). (1). (See Music Education 158.) Band and Orchestra Laboratory.

139. Methods of Teaching Band and Orchestral Instruments (brass). (1). (See Music Education 139.) Band and Orchestra Laboratory.

140. Methods of Teaching Band and Orchestral Instruments (percussion). (1). (See Music Education 140.) Band and Orchestra Laboratory.

161. Music Appreciation. (2). Includes representative works taken from classical, romantic, and modern schools. Designed to bring about understanding of music. For the non-music major. Special attention given to aesthetic principles of listening and musical form.

200. Elementary School Music. (3). (See Music Education 200.)

201. Fundamentals of Music for the Elementary School. (3). (See Music Education 201.)


217. Instrumental Conducting. (2). Fundamentals of baton technique, elementary score-reading, and musical leadership. Practical experience in conducting laboratory and classroom groups.

218. Choral Conducting. (2). Fundamentals of choral conducting technique, score reading, group psychology. Practical experience in conducting choral organizations.

227-228. Harmony. (2-2). Advanced study of harmony incorporating nineteenth and twentieth century structures and usage. Creative writing and analysis are integral parts of the course. Prerequisite: Music 128.

229-230. Ear Training and Sight Singing. (2-2). Advanced study in aural recognition and vocal realization of materials used in music composition. Prerequisite: Music 130 or equivalent. To be taken concurrently with Music 227-228.

Upper Division Courses

301. Survey of Elementary School Music. (3). (See Music Education 301.)

302. Advanced Techniques in Elementary School Music. (2). (See Music Education 302.)

303. Survey of Secondary School Music. (3). (See Music Education 303.)

304. Advanced Techniques in Secondary School Music. (2). (See Music Education 304.)
310. **Inter-related Arts.** (3). Inter-departmental course presenting an aesthetic analysis of three arts. The course will emphasize style in the three arts. (See English 310.)

311-312, 411-412. **Ensemble.** (1-1). (A) orchestra, (B) band, (C) university chorus, (E) chamber music performance, (F) university singers and A Cappella Choir, (G) string ensemble, (H) brass ensemble, (J) piano accompaniment, (K) opera theater, (L) small vocal ensemble, (M) football band, (N) woodwind ensemble, (P) piano repertoire, (Q) percussion ensemble, (R) organ repertoire, (S) string repertoire.

315. **Music of the Twentieth Century.** (2). An aesthetic approach to music of this century, its major composers, stylistic and formal characteristics. Designed primarily for the non-music major who has musical interest and background. May be elected by the music major. Prerequisite: Music 113, or 114, or 161, or Hum. 102, or Eng 310, or consent of instructor.

316. **Music of the Symphonic Masters.** (2). An advanced course in the great orchestral literature covering the development of the symphony orchestra and its music from the 18th century Mannheim School to the present. Designed primarily for the non-music major who has musical interest and background. May be elected by the music major. Prerequisite: Music 113, or 114, or 161, or Hum. 102, or Eng 310, or consent of instructor.

325. **Form and Analysis.** (2). The elements of structure, form, and design in musical composition. Prerequisite: Music 225.

331. **History of Music from Antiquity through the Renaissance.** (2). 2R. 1L. An intensive survey of the development and evolution of musical styles and practices in Western civilization from ancient times to 1600. Lectures, reference readings, and the study of representative music of the various periods and composers. (Full semester only.) Prerequisite: Music 113 and 225 or consent of instructor.

332. **History of Music from the Baroque to the Present.** (3). A continuation of Music 331. (Spring semester only.) Prerequisite: Music 113 and 225 or consent of instructor.

337. **Advanced Techniques in Woodwind Methods.** (1). Special problems and techniques in the teaching of woodwind instruments. Survey of current materials. Prerequisites: Music 157 and 136, or equivalent.

339. **Advanced Techniques in Brass Methods.** (1). Special problems and techniques in the teaching of brass instruments. Survey of current materials. Prerequisite: Music 159 or equivalent.

340. **Advanced Techniques in Percussion Methods.** (1). Special problems and techniques in the teaching of percussion instruments. Survey of current materials. Prerequisite: Music 140 or equivalent.

361. **18th Century Counterpoint.** (2). Contrapuntal devices of the 18th century as found in the works of J. S. Bach. Prerequisite: Music 228.

371. **18th Century Harmony.** (2). The harmonic techniques of the 18th century. Prerequisite: Music 223 or concurrent enrollment or department consent.

372. **20th Century Analysis.** (2). The composition techniques of the 20th century composers. Prerequisite: Music 223 or concurrent enrollment or department consent.

381 & 382. **Piano Materials.** (2-2). Discussion and analysis of suitable materials for teaching at elementary, intermediate, and advanced levels.

397. **Organ Literature of the 16th-18th Centuries.** (2). An intensive survey of the literature of the instrument. Discussion and performance of the works by students and professor. Prerequisite: Music 228 or department consent.

398. **Organ Literature of the 19th and 20th Centuries.** (2). An intensive survey of the literature for the instrument. Discussion and performance of the works by students and professor. Prerequisite: Music 228 or department consent.

426. **Voice Repertoire.** (3). A comprehensive survey of vocal literature and its suitability for different voices. Survey includes early Italian arias, French chansons, German lieder, art songs, and contemporary literature. Primarily designed for those interested in teaching singing.

427. **Music Theatre Directing.** (2). Coaching, mounting, and staging music-drama productions, with emphasis on acting and directing techniques. Prerequisite: consent of instructor.

430. **(Music or Music Education) Pedagogy of Theory.** (2). Teaching of music theory, including analysis and evaluation of the many texts available to the theory teacher. Planned course of study for various levels of instruction. Prerequisite: Music 323.

432. **(Music or Music Education) Teaching of Music Literature.** (2). Designed for the teacher preparing to teach music literature or appreciation. Aesthetic principles in music listening related to the other fine arts, and their application to various levels of teaching. Prerequisite: Consent of instructor.

441. **Orchestration.** (2). Scoring for string quartet and string orchestras, brass and woodwind trios, quartets, quintets, and sextets, small and full orchestra, and band. Prerequisite: Music 228.

445. **Choral Arranging.** (2). Scoring for vocal ensembles. Prerequisite: Music 228.

453. **Advanced Conducting & Score Reading.** (2). Bater technique, score reading, musicianship. Prerequisite: Music 217 or 218.

452. **Choral Materials.** (2). Study of choral materials and methods applicable to the music-education program.

455-460. **Composition.** (2-2). Original work in the large forms. Prerequisite: Music 323, or department consent.

461. **16th Century Counterpoint.** (2). Analysis and application of the contrapuntal compositional techniques of the 16th century. Prerequisite: Music 228.

472. **Contemporary Musical Thought in Music Education.** (2). A consideration of the effectiveness of the techniques of contemporary musical thought to all age levels in public school music. Prerequisite: Music 323 or consent of instructor.

482. **Marching Band Techniques.** (2). Study and analysis of current formations and pageantry for the marching band. Prerequisite: Consent of the instructor.

484. **String Teaching Seminar.** (2). (See Music Education 484).

487. **Piano Pedagogy.** (2). A detailed study and analysis of the problems related to performing and teaching representative works of piano literature. Prerequisite: Consent of instructor.

491. **Advanced Choral Conducting.** (2). Fundamental problems of choral conducting. Choral performance, analysis, and study of significant styles of choral composition. Prerequisite: Music 217 or 218.

492. **Band Organization and Administration.** (2). Problems of organization and administration particularly relevant to the band programs in the field of music education. Band pageantry.

497-498. **Church Music Practicum.** (2-2). A course concerned with practical matters and problems which face the church musician. Practice under conditions similar to actual situations. Prerequisite: Organ 12 performance standing.

**Graduate Courses**

505. **Applied Music.** Taken in fulfillment of graduate music degree.

511-512. **Ensemble.** (1-1). (A) orchestra, (B) band, (C) university chorus, (E) chamber music performance, (F) university singers and A Cappella Choir, (G) string ensemble, (H) brass ensemble, (J) piano accompaniment, (K) opera theater, (L) small vocal ensemble, (M) football band, (N) woodwind ensemble, (P) piano repertoire, (Q) percussion ensemble, (R) organ repertoire, (S) string repertoire.
531. Elementary Music Supervision. (3). (See Music Education 521.)

530. Seminar in Music Theory. (3). An analytical study of the materials used in musical composition from the pre-Renaissance era to the present. Compositions of representative composers of each period will be analyzed harmonically, stylistically, and formally. The individual student will analyze music in his own medium culminating with a presentation before the class. From these presentations an over-all synthesis of the compositional procedures of each period will be made. Stress will be laid on the areas in which the individual student is weakest, and that will benefit the class as a whole. This course is designed primarily to develop an analytical perspective rather than to develop compositional skills.

531. Developing the Child’s Musical Understanding. (3). (See Music Education 531). Definition of understandings necessary for the attainment of musical awareness in the young child. Exploration of classroom experiences directed toward the successful development of these understandings through the application of basic learning principles.


541-542. (Music or Music Education). Special Project in Music. (1-3—1-3). Individually supervised study or research with emphasis upon the personal needs of the student. Prerequisite: Consent of instructor.


551. (Music or Music Education). Psychology of Music. (2). Adapted to the viewpoint of the music educator. Emphasis on principles of psychology and their applications in the teaching of music, with special reference to the psychology of performance. Prerequisite: Consent of instructor.

552. Introduction to Graduate Study. (3). Techniques of research. Development of bibliography. Reports adapted to the needs of individual class members.

554. Research Seminar in Music Education. (3). Continued application of techniques of research. Completion of a major research project. Prerequisite: Music 552.

559-560. Advanced Composition. (2-2). Original work in the large forms. Continuation and expansion of 459-460. Prerequisite: Music 460.

572. Modern Music in the Modern School. (3). An Historical-Analytical survey of standard contemporary literature; consideration of creative approaches to the use of contemporary techniques; laboratory experiences exploring methods of teaching contemporary music at all levels of public school education. Prerequisite: Consent of instructor.

573-574. Graduate Recital. (2-2). Performance of a full recital featuring the chief performing medium. Prerequisite: Consent of instructor.

575. (Music or Music Education). Thesis Research. (2).


591-592. Seminar in Music History. (3-3). Areas of interest in music history will be developed as fully as time and graduates’ interest permit. No effort at a chronological survey will be made—rather the ideas evoking the most interest, and considered by the instructor to be of the greatest professional benefit, will be taken when interest warrants. Prerequisites: 331 and 332 or consent of instructor.

FOYER OF THE DUERKSEN FINE ARTS CENTER—a spacious area with complete glass east wall. It is also an exhibit space for paintings and art work.
THE SCHOOL OF ENGINEERING is housed in a functional two-story facility adjoining the Math-Physics Building.
Engineering is a profession which devises new tools, methods, processes or systems, to make better use of resources, for the purpose of enriching man's environment. This enrichment takes the form of better protection against harmful environment, better transportation, better food and shelter, and better communication, commensurate with man's desire to exist. The School of Engineering is an institution of learning which imparts knowledge to the student so that he will be able to understand and cope with his environment, and thus ultimately contribute to the enrichment of society.

To achieve these goals an institution must have objectives. The objective prevailing at most schools is emphasis on fundamentals, so that the student will ultimately develop into an engineer. Over the years, the objective has shifted in a broad sense from one of current practice, or past practice, to one based on application of broad principle. There is today a very substantial de-emphasis on routine techniques, with a shift in emphasis towards fundamental understanding.

At Wichita State University, the engineering courses are designed to give a student a thorough grounding in fundamentals of engineering with emphasis on their application in the particular chosen field of study.

The rapid advancements in engineering science and technology have resulted in considerable modification of engineering curricula. This has necessitated a continual inclusion of a greater breadth of subject material, much of which is interdisciplinary in nature. A realization of this trend has resulted in the concept of "engineering core programs" which cover a broad spectrum of fundamental engineering knowledge in an efficient manner, involving interdisciplinary organization where it is deemed advantageous.

In addition to the technical material, the engineering program contains a sufficient number of courses in humanities, social science, communication, mathematics and physical science to provide a well rounded educational program.

The curricula of the School of Engineering lead to the degrees of Bachelor of Science in Aeronautical Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Industrial Engineering, Bachelor of Science in Mechanical Engineering, and Master of Science.

The programs in Engineering are offered in daytime and evening classes. The courses are the same whether they are taught in the daytime or at night. The curricula on the following pages are arranged for full-time sequences and contain all the requirements for the various degrees.

The curricula of the Departments of Aeronautical Engineering, Electrical Engineering and Mechanical Engineering have been accredited by the Engineers Council for Professional Development.

Programs leading to the Master of Science Degree are offered in the Departments of Aeronautical, Electrical and Mechanical Engineering.

ENTRANCE REQUIREMENTS

Students may enter the School of Engineering from University College, other degree granting colleges within the University, or other universities and colleges, provided they have completed 24 semester credit hours and are not on probation.

PROBATION

A student will be placed on probation for the next term in which he enrolls if his cumulative grade point index falls below the following levels:

1. 1.700 if the student has earned 1 to 63 credit hours.
2. 2.000 if the student has earned 64 or more credit hours.

Probation is removed when the cumulative grade point index reaches the required level.

The student remains on probation if he earns at least a 2.000 index in the term during which he is on probation and his cumulative grade point index does not yet meet the minimum standards.

A student on probation may not enroll for more than 12 semester hours in an eighteen week term or ½ as many hours as the number of weeks for which he is enrolled in the summer term, plus one hour of military or air science, physical education, or marching band. Exceptions to this limitation may be made on recommendation of the student's advisor with the approval of his Dean. Such exception is to be recorded by the Committee on Admission, Advanced Standing, and Exceptional Programs.

CURRICULA

Each of the curricula consists of three parts: (1) The General Requirements of the University, (2) an "Engineering Core" program, and (3) specialized department courses.

The recommended sequence of courses for all engineering students is outlined below. This sequence has been planned for completion of the program in the minimum time and to satisfy all university course requirements and prerequisites for engineering students. Any deviation from this sequence should be discussed with the faculty advisor.
# SEQUENCE OF COURSES

## AERONAUTICAL ENGINEERING

### FRESHMAN YEAR

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<tr>
<th>Course</th>
<th>First Semester</th>
<th>Hrs.</th>
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<tr>
<td>Engr. 111, College English</td>
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<td></td>
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<tr>
<td>Math 142, Intro. Anal. I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>E. G. 109, Graphics I</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Humanities or Social Science</td>
<td>3</td>
<td></td>
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<tr>
<td>Chem. 111, General Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>ROTC or Physical Activities</td>
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<td></td>
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<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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<th>Course</th>
<th>Second Semester</th>
<th>Hrs.</th>
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<td>Speech 111, Ext. Speaking</td>
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<td>Phys. 245E, General College</td>
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<tr>
<td>Math 244, Intro. Anal. II</td>
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<td>E. G. 110, Graphics II</td>
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<td>Chem. 112, Gen. &amp; Organic</td>
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<td></td>
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<tr>
<td>ROTC or Physical Activities</td>
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<td><strong>Total</strong></td>
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### SOPHOMORE YEAR

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<th>Course</th>
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<th>Hrs.</th>
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<tr>
<td>Communications Elective</td>
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<tr>
<td>Math 244, Intro. Anal. III</td>
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** Chosen from E. E. 483, 484, 490, 491, 492, 493; A. E. 524; I. E. 450; M. E. 402; Math 335, 450; Phys. 345.

## INDUSTRIAL ENGINEERING

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<tr>
<td>Chem. 112, General &amp; Inorganic</td>
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<td>Physics 243E, Gen. College Phys.</td>
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<td>ROTC or Physical Activities</td>
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## SOPHOMORE YEAR

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<td>M. M. 227, Engr. Dig. Comp.</td>
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<td>M. M. 223, Engr. Mechanics I</td>
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## SCHOOL OF ENGINEERING

107
Students must be accepted for graduate standing before any graduate work can be scheduled. Prospective students should obtain a Graduate Bulletin and the Engineering Graduate Regulations prior to application for graduate standing.

ENGINEERING CURRICULUM

Majors and Specialized Curricula. See page 106. The following courses will be listed as offerings of each degree granting department. Students will receive major department credit by enrolling in any section of these courses.


Upper Division Courses

300. Engineering Science in Society. (2). A course to demonstrate and explain—in depth but without technical jargon—developments in engineering science in the past century which have influenced large portions of society. Emphasis will be placed upon conceptual understanding of scientific phenomena and devices. Guest lecturers and demonstrations will be used extensively. Prerequisite: Upper division standing.

313. Seminar I. (0). 2L. Evaluation and rating of the preparation and presentation of technical papers and discussions. Prerequisite: junior standing.


378. Flow and Field Systems II. (4). 3R; 4L. A continuation of Engr. 377 to include the tensor analysis of deformable bodies and viscous fluids, the effect of time variations in heat transfer, electro-magnetic fields, deformable bodies and fluid flow. Introduction to wave motion in solids, fluids, and space. Prerequisite: Engr. 377.

393. Engineering Analysis. (3). 2R; 3L. The professional method of engineering analysis and design with the objective of developing in the student the ability to deal with new situations in a creative manner by means of fundamental principles; an integration of the engineering sciences and mathematics through use in problem-solving activities. Prerequisite: M. M. 398 or concurrent enrollment, Engr. 377.

413. Seminar II. (1). 2L. Problem solving by discussion groups, preparation and presentation of technical papers, registration, professional orbiting. Prerequisite: Engr. 313.

AERONAUTICAL ENGINEERING

Upper Division Courses


412. Experimental Methods in Aerodynamics Engineering. (2). 4L. Experimental methods and test planning, error analysis and propagation, model design, instrumentation, flow visualization, use of subsonic and supersonic wind tunnels, shock-tube, etc. Prerequisite: A. E. 416, or concurrent.

418. Supersonic and Hypersonic Aerodynamics. (2). One-dimensional flow of a perfect gas; shock and expansion waves; applications to nozzles, wind tunnels, and airfoils in two-dimensional supersonic flow. General features and assumptions of hypersonic flow; hypersonic similarity; Newtonian and small-disturbance theory; introduction to free molecule and rarified gas flows. Prerequisite: A.E. 324.


426. Flight Structures Laboratory. (1). 3L. Special projects in the design and analysis of flight vehicle structures. Prerequisite: A.E. 425.


470. Structural Dynamics I. (3). An introduction to the fundamental concepts of the dynamics of structures. Matrix algebra, Lagrange's equations, single degree of freedom vibrations, classical theory of multiple degree of freedom vibrating system, eigenvalues, eigenvectors, normal modes and their properties, approximate methods, and an introduction to the vibrations of continuous systems. Prerequisites: M.M. 373 and Math 446.

Graduate Courses
Prerequisite for all graduate courses is department consent.

500. Structural Dynamics II. (3). Review of Lagrange equations; transverse vibrations of beams, membranes, and plates; longitudinal vibrations of rods; torsional vibrations of shafts; aircraft flutter and dynamic response; random vibrations. Prerequisites: M.M. 373, Math 349, and consent of instructor.


504. Research in Aeronautical Engineering. (2). Individual experimental work by qualified graduate students. Problems to be selected in consultation with instructor.

505. System Optimization. (3). Analytical and numerical techniques for optimizing or maximizing functions and functionals occurring in engineering problems.


511. Aerodynamics of Non-Viscous Fluids. (3). Equations of motion; potential flow, conformal transformations; finite wing theory; non-steady airfoil theory.


516. Aerodynamics of Compressible Fluids. (3). Inviscid compressible flow theory in transonic, supersonic, and hypersonic speed regimes.


522. Advanced Flight Structures II. (3). The analysis of statically indeterminate structures by the matrix displacement method.


550. Aeronautical Seminar. (1). A fortnightly two-hour meeting of staff members and graduate students to discuss current aeronautical problems.


ELECTRICAL ENGINEERING

Upper Division Courses

352. Electrical Dynamics. (4). 3R; 8L. Electric circuit analysis with emphasis on the time varying case; sinusoidal excitation, frequency response, network theorems, coupled circuits; polyphase circuits. Prerequisite: Math. 244, Physics 244.

392. Electronic Circuits. (4). 3R; 8L. Physical electronics, electron beams; semi-conductor, vacuum, and gaseous devices and their equivalent circuits, application to the field of information processing, power modulation, and simulation. Prerequisite: E.E. 382, Math. 349.

400. Transient and Frequency Analysis. (3). Review of classical transient analysis and Fourier Series; introduction to Laplace and Fourier Transforms with emphasis on network response; complex frequency concepts; signal spectra. Prerequisite: E.E. 392, M.M. 398.

452. Energy and Information Transmission. (4). 3R; 8L. Transmission line parameters; power, signal and high frequency transmission lines; wave propagation in free space and bounded media; wave guides and antennas. Prerequisites: Engr. 378, E.E. 450 or concurrent enrollment.


485. Electrical Design Project I. (1). 3L. A design project under faculty supervision chosen according to the student's interest. Prerequisite: department consent.


491. UHF Generation and Amplification. (3). High frequency limitations of vacuum tubes; theory and characteristics of microwave oscillators and amplifiers; klystrons, magnetrons, traveling wave tubes, and masers. Prerequisites: E.E. 452 or concurrent enrollment.

492. Physical Electronics. (3). Theory of electron emission, optics, and beam deflection devices; storage tubes; surface and junction effects in metals and semiconductors; high frequency limitations to vacuum and semiconductor devices; microwave tubes. Prerequisite: Engr. 378, M.M. 347 and E.E. 392.

495. Electrical Design Project II. (1). 3L.

Graduate Courses


580. Advanced Engineering Analysis. (3). Integration of fundamental mathematical and physical principles; use of these principles in professional methods of analysis. Prerequisite: Math. 349. Intended for students who have not had 399.

582. Theory of System Response. (3). Response of linear physical systems with emphasis on electrical networks. LaPlace and Fourier Transforms; complex frequency concepts, frequency spectra, pole and zero viewpoint of network analysis and synthesis, complex plane loci, attenuation-phase diagrams. Introduction to advanced theory of feedback systems; servomechanisms, negative feedback amplifiers and oscillators; stability criteria. Prerequisite: M. M. 398 or equivalent.


584. Intermediate Electromagnetic Field Theory II. (3). Application of Maxwell's Equations; eddies currents, skin effect; electromagnetic waves; introduction to wave guides, cavity resonators, radiation, and antenna. Prerequisite: E. E. 583.

585. Electron Dynamics. (3). Electron ballistics in static and dynamic fields including space charge effects; electron optics, space charge spreading, aberration and thermal velocity limitations; space charge waves, theory of Klystrons, Magnetrons and Traveling Wave Tubes. Prerequisite: E. E. 584 or concurrent enrollment.

586. Solid-State Electronics. (3). Principles of operation of solid-state electronic devices with emphasis on the underlying physical phenomena. Special treatment will be given to electron emission, semiconductor, dielectric and magnetic devices. Some consideration will be given to circuit application of these devices. Prerequisite: E. E. 583, Physics 515.

587. Communication Theory. (3). Theory of information and noise; communication of information in presence of noise; channel capacity; modulation and multiplexing; sampling and coding; detection theory including effects of noise and non-linear circuits; correlation methods. Prerequisite: E. E. 582.

588. Selected Topics in Antennas and Propagation. (3). Determination of characteristics of practical antenna systems; radiation patterns and antenna impedance; diffraction, horns, slots, etc.; wave propagation in the earth's environment, including tropospheric and ionospheric phenomena. Prerequisite: E. E. 584.

589. Advanced Electrical Laboratory. (2). 6L. Training in fundamental experimental technology in some field of electrical specialization. This course will consist of selected experiments in various areas of electrical engineering. The general subject area will be announced each semester the course is offered. May be taken more than once for credit. Prerequisite: Department consent.


591. Instrumentation and Control of Nuclear Reactors (3R). Reactor kinetics; time constants, fission products and poisoning and temperature effects. Control rod effectiveness; neutron flux depression. Reactor instrumentation and control elements. Reactor control systems; internal and external loops. Analysis of transient and steady-state response. Control during startup; steady-state operation and shut-down. Prerequisite: Department consent.

595. Direct Energy Conversion (3R). A theoretical treatment of basic methods of energy conversion, i.e., thermonuclear and other devices, magnetohydrodynamic generators, solar and fuel cells, etc., based on modern physics and thermodynamics. Prerequisite: Department consent.

ENGINEERING GRAPHICS

Lower Division Courses

109. Graphics I. (1). 1R; 2L. An introduction to Engineering Graphics: the basic principles of orthographic drawing including lines, planes, and solids; and the fundamentals of dimensioning. Prerequisite: Math. 141 or concurrent enrollment.

110. Graphics II. (2). 2R; 4L. A study of the representation of all solid forms on the drawing and the graphical methods for determining their true size, true slopes, and true relationships to each other. Prerequisite: E. G. 109.

115. Architectural Drawing. (3). 9L. The study of materials and construction details pertaining to the design of simple buildings including the preparation of working drawings and specifications. Prerequisite: E. G. 109 or E. G. 117.


256. Advanced Tool Drafting. (2). 6L. The study of the materials and conventional practices used in the graphical presentation of information pertaining to the design and fabrication of jigs, fixtures, and dies, including the solution of simple design problems. Prerequisite: E. G. 213.

260. Production Illustration. (2). 6L. The study of the graphical methods of presenting engineering information in the form of rendered pictorial (three-dimensional) drawings. Prerequisite: E. G. 109 or E. G. 117.

INDUSTRIAL ENGINEERING

Lower Division Courses

254. Statistical Analysis. (3). Basic theory of probability and statistics with emphasis on applications to engineering. Prerequisite: Math 244 or concurrent.

Upper Division Courses

332. Work Measurement. (3). 2R; 3L. Work measurement, motion and time study, biomechanics, work sampling, predetermined time standards and time formula derivation. Prerequisite: Department consent.


449. The Human Factor in Engineering Design. (2). The synthesis of human physiological, psychological, sociological and legal limitations and influence on design of consumer, public and experimental products. Prerequisite: Department consent.


MECHANICAL ENGINEERING

Upper Division Courses

M.E. 301. Mechanical Engineering Measurements. (2, 3R, 3L). An introduction to modern measurement techniques in Mechanical Engineering. Prerequisites: Math. 349, Phys. 244E.


M.E. 369. Energy Conversion. (3). Energy Conversion principles and their implementation in engineering devices; consideration of all main areas of converting energy from one form to another. Prerequisites: M. M. 373, Engr. 377, E. E. 382.


M.E. 402. Thermodynamics II. (3). Continuation of M.E. 312 with emphasis on statistical thermodynamics, irreversibility, and Maxwell’s equations. Prerequisite: M.E. 312.


M.E. 405. Experimental Engineering. (3). (2R, 2L). Study of theoretical, analytic and statistical aspects of basic mechanical engineering experimentation. Theories of test planning data, checking, analysis and synthesis, and evaluation are considered. Prerequisites: M.E. 301, M.E. 401.


M.E. 422. Intermediate Heat Transfer. (3). A rigorous treatment of heat transfer including transient and multi-dimensional conduction, free and forced convection, radiation and combined heat transfer. Various analogies, numerical methods and approximate solutions are considered. Prerequisites: M.E. 401, M.E. 421.


M.E. 441. Mechanical Engineering Design II. (3). Continuation of M.E. 439, application of mechanics of materials and thermal effects to engineering systems and components. Introduction to theories of lubrication and rheology. Prerequisite: M.E. 439.


M.E. 450. Topics in Mechanical Engineering. (1-3). Investigation of selected phases of Mechanical Engineering. Prerequisites: Department consent.

Graduate Courses


M.E. 546. Fatigue and Fracture Mechanics. (3). Methods of fatigue and fracture mechanics together with reliability studies as applied to mechanical engineering design problems. Prerequisites: M.E. 548, M.M. 530.


M.E. 549. Advanced Mechanical Engineering Design. (3). Studies of current Mechanical Engineering design problems which involve high speed, high and low temperature, vibrations and dynamic loading. Prerequisites: M.E. 441, Math. 450.


M.E. 555-556. Advanced Thermodynamics. (3-3). Prerequisites: M.E. 402, Math. 450.


M.E. 559. Mechanical Control. (3). Application of feedback methods to mechanical and combined control systems. Prerequisites: M.E. 404, Math. 450.


M.E. 563. Advanced Transport Phenomena. (2). Combination of heat transfer, diffusion, and fluid dynamics theories in the determination of transport of mass, momentum, and energy. Prerequisites: M.E. 401, Math. 450.

M.E. 564-565. Nuclear Power Plants. (3-3). Analysis types of nuclear reactors for power plants’ operation with emphasis on reactor fuels, moderators, coolant, control, shielding, and auxiliary equipment. Prerequisite: Math. 450.


MECHANICS AND MATERIALS
Lower Division Courses

127. Digital Computer Programming. (1). 1R. Programming and operation of IBM 1620 data processing system. Prerequisite: Math 141 or equivalent.


Upper Division Courses


373. Engineering Mechanics II. (3). 3R. The laws of motion and the dynamics of particles and systems of particles. Prerequisites: M.M. 223 with C or better and Math 244.


399. Experimental Mechanics Laboratory. (1). 3L. Selected experiments in mechanics of materials and materials science. Experiment design, measurement and data interpretation. Prerequisite: M.M. 347 or concurrent.

493. Advanced Strength of Materials. (3). Limitations and usefulness of basic concepts of resistance of materials. Advanced concepts, including theories of failure and stresses and deformation in thin plates, cylinders, non-symmetrical and curved flexural members, non-circular bars in torsion, etc. Stress concentration. Energy methods. Prerequisite: M.M. 333.


476. Selected Topics in Structural Engineering. (3). Prerequisite: Dept. consent.

477. Mechanical Vibrations. (3). Mechanical vibrations, free, forced, damped and undamped, linear, non-linear, single, multiaxial and satellite elastic systems. Electrical analogues. Prerequisite: M.M. 339.

Graduate Courses

520. Theory of Elastic Stability. (3). Buckling and bending of columns, beams, plates, and shells. Prerequisite: Math 349.

530. Introduction to Elasticity. (3). Elements of the common theory of elasticity with emphasis on two-dimensional problems in stress and strain. Prerequisite: Math 349.

532. Plates and Shells. (3). Bending of flat plates of various shapes and boundary conditions; general methods and approximate theories. Membrane stresses in arbitrary plates and bending stresses for shells of revolution. Prerequisite M.M. 433 or equivalent.

533. Continuum Mechanics. (3). A unified development of the basic theories and equations of solids and liquids in invariant tensor notation. Formulation of problems of elasticity, plasticity and fluid mechanics. Prerequisite: Department consent.

535. Experimental Stress Analysis. (3). The theoretical bases and techniques of the common methods of experimentally determining stress and strain in structural and machine parts. Selected laboratory demonstrations. Prerequisite: Math 349.

537. Advanced Engineering Dynamics. (3). An extension of the principles of kinetics and kinecatics. Prerequisite: M.M. 398.

538. Random Vibration. (3). Characterization, transmission and failure of mechanical systems subjected to random vibration. Analysis and measurement methods for random data. Prerequisite: M.M. 477 or equivalent.

539. Variational Principles of Mechanics. (3). An approach to the dynamics of discrete particles or bodies using basic variational principles and variational calculus.

549. Corrosion and Chemical Process in Materials. (3). Classical thermodynamics applied to liquid and solid state reactions in single and multi-component systems, cells, solid state devices, etc. Prerequisite: M.M. 347 or equivalent.
THE SUMMER SCHOOL
HUGO WALL, Ph.D., Director

SUMMER SCHOOL
All the colleges and divisions of the University function during the summer session. Credit toward all undergraduate degrees offered by the University may be earned during the summer. Graduate work leading to the Masters degree is available through certain departments.

SUMMER SESSION BULLETIN
The bulletin of the summer session contains a list of dates, all courses offered, names of instructors, and hours of credit. This bulletin will be mailed to those requesting it.

The University extends a cordial invitation to all interested persons to avail themselves of the opportunities which the summer session offers.

For bulletin and information write to the Director of the Summer Session, Wichita State University, Wichita, Kansas, 67208.

GENERAL INFORMATION
The University maintains its summer session as an extension of its regular scholastic year. All work is offered by thoroughly competent instructors, and the standards of achievement are identical with those of the regular academic year.

STANDARDS
Credits earned in the summer session are accepted by all colleges accredited by or belonging to the associations which accredit the University or in which it has membership.

ADMISSION REQUIREMENTS
The Rules governing admission to the summer session are the same as those of the regular session.

CREDIT HOURS
The student may carry as many credit hours as the number of weeks for which he is enrolled.

FEES
For information regarding fees, see page 17.

CENTER FOR URBAN STUDIES
The Center for Urban Studies is an interdisciplinary organization which was established to give special attention to the problems of metropolitanism and to carry on both independent and contract research. The staff works with the faculty and graduate students in making studies of economic, sociological, and cultural problems, as well as governmental problems. A central library of specialized materials on urban and regional problems is being established at the Center, and the staff is available to assist in conducting seminars, workshops and conferences for officials and interested citizens.

The role of the Center for Urban Studies is to stimulate University faculty members, graduate students, and other informed and interested citizens to investigate, analyze, and report upon metropolitan problems; to develop explanatory hypotheses, alternative solutions, and the probable consequences of such proposals; to provide seminars and conferences for the study of problems; and to provide information on the areas that have been considered.
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## ENROLLMENT SUMMARY—1964-1965

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### School of Engineering

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### College of Education

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<tr>
<td>Juniors</td>
<td>60</td>
<td>86</td>
<td>146</td>
</tr>
<tr>
<td>Sophomores</td>
<td>51</td>
<td>67</td>
<td>118</td>
</tr>
<tr>
<td>Freshmen</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Specials</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>186</td>
<td>233</td>
<td>419</td>
</tr>
</tbody>
</table>

### Graduates School

<table>
<thead>
<tr>
<th>Grade</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1076</td>
<td>647</td>
<td>1723</td>
</tr>
</tbody>
</table>

### Summer School, 1965

<table>
<thead>
<tr>
<th>Grade</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grand Total</strong></td>
<td>2272</td>
<td>2078</td>
<td>4350</td>
</tr>
</tbody>
</table>

Grand Total: 15,464
Duplicates Deducted: 2,461
Net Total: 13,003