

COLLEGE OF ARTS AND SCIENCES

MISSION STATEMENT

The mission of the College of Arts & Sciences is to provide an exceptional learning environment for students to develop the talents and skills necessary for personal and professional success. Combining a solid grounding in their major disciplines with an interdisciplinary approach to education, Arts & Sciences students learn, practice and value analysis, experimentation, creativity, and ethical action. In collaboration with the entire university, the College encourages students to assume responsibility for their education and to become engaged citizens on both the local and global levels.

The college offers degree programs in the full range of arts and sciences disciplines and interdisciplinary programs, enabling students to lay the groundwork for careers in education, business, the arts and the professions. It also provides the liberal education experiences for students in the University's undergraduate professional programs, and, through its School of Fine Arts, enriches the cultural experience of all members of the Drake community.

The Drake University College of Arts and Sciences is comprised of the divisions of Humanities, Natural Sciences and Social Sciences and a School of Fine Arts.

MAJOR FIELDS OF STUDY

The divisions of Humanities, Natural Sciences, and Social Sciences offer study leading to the Bachelor of Arts and Bachelor of Science degrees in the following major areas:

ANTHROPOLOGY AND SOCIOLOGY
ASTRONOMY
BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY
BIOLOGY
CHEMISTRY
COMPUTER SCIENCE
ENGLISH
ENGLISH WRITING
ENVIRONMENTAL POLICY
ENVIRONMENTAL SCIENCE
ETHICS
HISTORY
INDIVIDUALIZED MAJOR
INTERNATIONAL RELATIONS
LAW, POLITICS, AND SOCIETY
MATHEMATICS
MATHEMATICS FOR SECONDARY EDUCATION
NEUROSCIENCE
PHILOSOPHY
PHYSICS
POLITICS
PSYCHOLOGY
QUANTITATIVE ECONOMICS
RELIGION
RHETORIC AND COMMUNICATION STUDIES
SOCIOLOGY
STUDY OF CULTURE AND SOCIETY

Students may choose to be open enrolled (undeclared) until they are ready to select a major area of study.

Through the School of Fine Arts, with its departments of Art and Design, Music and Theatre Arts, the college offers programs leading to these undergraduate degrees:

BACHELOR OF ARTS (with majors in art history, graphic design, studio art, music and theatre arts)

BACHELOR OF FINE ARTS (with majors in graphic design, studio art, musical theatre, theatre arts and theatre education)

BACHELOR OF MUSIC (with majors in music with elective studies in business and music performance — instrumental, piano, voice.)

BACHELOR OF MUSIC EDUCATION

PROGRAM ENHANCEMENT OPTIONS:

In addition to the major fields of study, the College of Arts and Sciences offers many program options to enhance the undergraduate educational experience. See subsequent sections of this catalog for details on each of these program options.

ACCELERATED M.B.A. PROGRAM: The College of Arts and Sciences and the College of Business and Public Administration offer a combined program leading to a bachelor's degree in arts and sciences and a master's degree in business administration (M.B.A.).

ARTS AND SCIENCES/LAW SCHOOL 3 + 3 PROGRAM: Complete undergraduate and law degree in six years. See "Program Options" section of Arts and Sciences.

DRAKE UNIVERSITY LANGUAGE ACQUISITION PROGRAM

The learner-centered Directed Independent Language Study (DILS) model that Drake has adopted in place of traditional classroom language instruction is the Drake University Language Acquisition Program (DULAP; <http://www.drake.edu/dulap/>). DULAP addresses the clearest need for language training at Drake: functional usage.

Although DULAP has no majors or minors, DULAP offers nine languages: French, Spanish, German, Italian, Arabic, Mandarin Chinese, Japanese, Russian and Hindi. Students take a 3-credit DILS (directed independent language study) course and a co-requisite 1-credit Language Learning Strategies course.

Education majors wishing to teach French, German or Spanish at the secondary level may take courses to earn a teaching endorsement in those languages. For details about the endorsement, see the School of Education.

INDEPENDENT STUDY: Each department in the College of Arts and Sciences, as faculty time permits, offers independent study according to the needs and interests of students.

INDIVIDUALIZED MAJORS AND MINORS: Students whose educational goals lie outside the programs listed above may seek faculty approval to pursue a combination of existing courses as an individualized major or minor.

INTERDISCIPLINARY CONCENTRATIONS are available in human resource management; Latin American studies; studies in information technology and women's studies.

MINORS IN BUSINESS STUDIES AND MARKETING are available to arts and sciences students.

PRE-PROFESSIONAL STUDY AND COMBINED DEGREE PROGRAMS are available in marine science, medicine and allied fields, pre-medicine/pre-dentistry, physics/pre-engineering, pre-law and social work.

Pre-professional study is available in these medical and allied fields:

- DENTISTRY
- MEDICINE
- MORTUARY SCIENCE
- OPTOMETRY
- OSTEOPATHIC MEDICINE
- PHYSICAL THERAPY
- PHYSICIAN'S ASSISTANT
- PODIATRY
- VETERINARY MEDICINE

Pre-professional study also is offered in **PRE-LAW STUDY**.

To prepare to enter diploma or degree programs in:

- DENTAL HYGIENE
- NURSING

COMBINED DEGREE PROGRAMS: Students may complete the general requirements for graduation and requirements in a major field during three years of study in the College of Arts and Sciences. With faculty approval, they may then apply the first year of professional study in the following fields toward their undergraduate degree:

- LAW
- MEDICINE
- PHYSICAL THERAPY
- VETERINARY MEDICINE

A dual degree program in Physics/Engineering has been established with the School of Engineering and Applied Science, Washington University, St. Louis, Missouri.

TEACHER EDUCATION PROGRAM: Students who are planning careers in teaching may enroll in the College of Arts and Sciences and complete the professional core in the School of Education. This enrollment applies to secondary education programs only. Elementary education is offered only in the School of Education. For information on these programs, see Teacher Education Programs in the College of Arts and Sciences section as well as the School of Education section.

The Faculty

The Drake University College of Arts and Sciences faculty consists of student-oriented men and women who are dedicated to teaching and actively engaged in scholarly research and artistic endeavors. They have studied at leading educational institutions in the United States and abroad. Some have held Fulbright appointments for teaching and research overseas. Others have had grants from foundations, including Guggenheim, Danforth, Ford, National Science and Woodrow Wilson, and from the National Endowment for the Arts, the Louis Comfort Tiffany Foundation, the National Endowment for the Humanities and the National Humanities Center.

The date in the parentheses after each name indicates the year of appointment to the Drake University faculty.

PROFESSORS

ARCHER, JULIAN (1968), Professor of History. B.A., University of Arkansas; M.A., University of Colorado; Ph.D., University of Wisconsin.

BARTSCHAT, KLAUS (1988), Ellis and Nelle Levitt Professor of Physics. Diploma, Ph.D., Habilitation, University of Munster.

BECKMANN-COLLIER, AIMEE (1991), Professor of Conducting; Director of Choral Activities. B.M., Saint Mary's College; M.M., D.M.A., University of Iowa.

BURNEY, JOHN M. (2003), Dean and Professor of History. B.A., Creighton University; M.A., M. Phil and Ph.D., University of Kansas.

CANARINA, JOHN (1973), Professor of Conducting; Director of Orchestral Activities. Conducting studies with Jean Morel and Pierre Monteux. B.S., M.S., Juilliard School of Music; Conductor, Seventh Army Symphony; Assistant Conductor, New York Philharmonic; Music Director, Jacksonville, Florida Symphony.

CLAPHAM, MARIA MACIEJCZYK (1990), Professor of Psychology. B.S., Loyola University of Chicago; M.S., Ph.D., Iowa State University.

DEALBA, LUZ (1984), Windsor Professor of Science and Professor of Mathematics and Computer Science. B.S., University Anahuac (Mexico); B.S., National University of Mexico; M.S., Ph.D., Iowa State University.

DOUGHERTY, WILLIAM P. (1994), Ellis and Nelle Levitt Professor of Music. B.M.E., Illinois Wesleyan University; M.A., Ph.D., Ohio State University.

GOLDFORD, DENNIS J. (1985), Professor of Politics and International Relations and Director of Law, Politics and Society. A.B., University of Michigan; M.Litt., Oxford University, England; M.A., Ph.D., University of Chicago.

HOGANSON, DEAN A. (1974), Professor of Biology. B.A., University of Northern Iowa; M.A., Drake University; Ph.D., University of Iowa.

HOLMAN, JOHN W. (1991), Associate Professor of Theatre Arts. B.A., University of Sciences and Arts of Oklahoma; M.F.A., University of Utah.

KLEINER, ALEXANDER F., JR. (1969), Thomas F. Sheehan Professor of Mathematics and Computer Science. B.A., St. Thomas University; M.A., Ph.D., Texas A&M University.

LENZ, JOSEPH M. (1982), Professor of English. Chair, English Department. B.A., St. Norbert College; M.A., Arizona State University; Ph.D., University of Illinois.

LEWIS, WILLIAM F. (1982), Professor of Rhetoric. B.A., Macalester College; M.A., Ph.D., University of Minnesota.

PATRICK, DALE A. (1982), Professor of Religion and Endowment Professor of the Humanities. B.S., Lewis & Clark College; B.D., Drew University, School of Theology; Th.D., Graduate Theological Union, San Francisco Theological Seminary.

PETERSEN, VIBEKE RUTZOU (1993), Professor of Women's Studies. B.A., M.A., Ph.D., New York University.

ROGERS, RODNEY (1955), Professor of Biology. B.A., M.A., Drake University; Ph.D., University of Iowa.

SANDERS, ARTHUR (1990), Professor of Politics; Director of the Honors Program; Chair of Politics and International Relations Department. B.A., Franklin and Marshall College; Ph.D., Harvard University.

SCHNEIDER, JOSEPH W. (1970), Ellis and Nelle Levitt Professor of Sociology. B.A., M.A., Ph.D., University of Iowa.

SCULT, ALLEN (1975), Professor of Philosophy and Rhetoric; Endowment Professor of the Humanities. B.A., University of Pennsylvania; M.A., Annenberg School of Communication; Ph.D., University of Wisconsin.

SKIDMORE, DAVID G. II (1989), Professor of Politics and International Relations. Director, Center for Global Citizenship. B.A., Rollins College; M.A., Ph.D., Stanford University.

SWILKY, JODY (1988), Professor of English. B.A., State University of New York, Genesco; M.F.A., University of Iowa; D.A., SUNY-Albany.

TORGERSON, JON (1970), Professor of Philosophy. B.A., Concordia College; M.A., Ph.D., University of Nebraska.

TROYER, RONALD J. (1980), Provost and Professor of Sociology. B.S., Huntington College; M.A., Ball State University; Ph.D., Western Michigan University.

WACHA, RICHARD (1971), Professor of Biology. Chair of the Biology Department. B.S., University of Nebraska; M.A., University of Northern Colorado; Ph.D., Utah State University.

WOOD, W. SCOTT (1970), Professor of Psychology. B.A., University of Southern California; Ph.D., Arizona State University.
WRIGHT, SUSAN E. (1975), Associate Provost and Professor of Sociology. B.A., University of Puget Sound; A.M., University of Missouri; Ph.D., Iowa State University.

ASSOCIATE PROFESSORS

ALEXANDER, DANIEL (1993), Associate Professor of Mathematics; Director, Center for Digital Technology and Learning. A.B., Colby College; M.S., Ph.D., Boston University.
ALLEN, JUDITH MATKIN (1988), Associate Professor of Psychology. B.A., M.A., Ph.D., University of Arkansas.
BAKER, BERNADETTE (1981), Associate Professor of Mathematics and Computer Science. B.S., Creighton University; M.S.E., Drake University; Ph.D., Iowa State University.
BATTLE, ANGELA (2000), Associate Professor of Art. B.F.A., B.S., Virginia Commonwealth University; M.F.A., University of New Mexico.
BOHORQUEZ, MARIA DEL VALLE. (1995), Associate Professor of Chemistry. Director of the Drake University Science collaborative Institute. Ph.D., University of Rio Cuarto, Argentina.
BUISING, CHARISSE M. (1993), Associate Professor of Biology. Director of Biochemistry, Cell, and Molecular Biology. B.S., University of Iowa; Ph.D., Iowa State University.
CAIRNS, COLIN (1986), Associate Professor of Chemistry. B.S., Ph.D., Queen's University of Belfast.
CHEN, PHILLIP (1995), Associate Professor of Art. B.F.A., University of Illinois; M.F.A., School of Art Institute of Chicago.
CLASSEN, ANDREW B. (1992), Associate Professor of Trumpet and Jazz Studies; Jazz Ensemble Director; Assistant Director of Bands. B.A., University of Wisconsin-Eau Claire; M.M., University of Tennessee. Trumpet with Minnesota Orchestra, Knoxville Symphony and Missouri Chamber Orchestra.
CRAIG, ROBERT G. (1991), Associate Professor of Art. Chair of the Department of Art and Design. B.A., Eastern Illinois University; M.F.A., Florida State University.
COURARD-HAURI, DAVID (2000), Associate Professor of Environmental Science and Policy. B.S., Georgetown University; M.P.A., Princeton University; Ph.D. Stanford University.
DE LAET, DEBRA L. (1995), Associate Professor of Politics and International Relations. B.A., Miami University of Ohio; M.A., Ph.D., University of Notre Dame.
ESPOSITO, MATTHEW (1997), Associate Professor of History. Chair of the History Department. B.A., Linfield College; M.A., Arizona State University; Ph.D., Texas Christian University.
FAUX, STEVEN (1990), Associate Professor of Psychology. Chair of the Psychology Department. B.A., University of California-Riverside; Ph.D., Brigham Young University.
FENDER, JOHN (1999), Associate Professor of Art and Design. B.A., M.A., M.F.A., University of Iowa.
FREEMAN-MILLER, LEANNE (1998), Associate Professor of Music. B.M.E., University of South Dakota-Vermillion; M.M., Drake University.
HENDERSON, LARHEE (1983), Associate Professor of Chemistry. Chair of the Chemistry Department. B.S., Morningside College; Ph.D., University of Nebraska.
HONTS, JERRY E. (1995), Associate Professor of Biology. B.S., Ph.D., University of Iowa.
KLIPEC, WILLIAM D. (1974), Associate Professor of Psychology. B.A., Kent State University; M.S., University of Wisconsin; Ph.D., University of Arizona.
LYONS, MAURA (2000), Associate Professor of Art. A.B., Georgetown University; M.A., Ph.D., Boston University.
MARSTON, JAN (2002), Associate Professor. Director of the Drake University Language Acquisition Program. B.A., University of Oregon; M.A., Ph.D., University of Texas, Austin.
McCRICKERD, JENNIFER (1994), Associate Professor of Philosophy. Chair of the Philosophy and Religion Department. B.A., Wellesley College; M.A., Ph.D., Washington University.
MCKNIGHT, GLENN (1997), Associate Professor of History. B.A., Houghton, College; M.A., Concordia University, Montreal, Canada; Ph.D., Queen's University, Ontario, Canada.
MCTAGGERT, JOHN A. (2000), Associate Professor of Computer Science. B.S., M.S., Central Michigan University.

MEUNIER, ROBERT W. (1988), Associate Professor of Percussion; Director of Bands. B.S., University of Mary; M.M., University of Wisconsin-Madison. Percussionist in Bismarck, Duluth, St. Joseph and Des Moines Symphonies; Midwestern Recitalist, Clinician, Adjudicator.

MIRAFZAL, GHOLAM A. (1993), Associate Professor of Chemistry. B.S., Jacksonville State University; Ph.D., University of Nebraska.

NAYLOR, LAWRENCE (1978), Associate Professor of Mathematics and Computer Science. Chair of the Mathematics and Computer Science Department. B.S., M.A., Ph.D., University of Oklahoma.

OAKLAND, DAVID O. (1981), Associate Professor of Mathematics and Computer Science. B.S., South Dakota State University; Ph.D., Iowa State University.

PADILLA, CLARENCE S. (1993), Associate Professor of Woodwind Instruments (Clarinet). Chair of the Music Department. B.M., California State University-Long Beach; M.M., University of Southern California. Des Moines Symphony Orchestra. Studied with Mitchell Lurie, David Shifrin, Stanley Hasty, David Atkins and Robert Marcellus.

PETRIDIS, ATHANASIOS (2001), Associate Professor of Physics and Astronomy. B.S., National University of Athens, Greece; Ph.D., Iowa State University.

POMEROY, JOHN (1993), Associate Professor of Theatre Arts. Chair of the Theatre Arts Department. B.A., St. Ambrose University; M.F.A., University of Iowa.

REINCKE, NANCY (1992), Associate Professor of English. Director of Women's Studies. B.A., College of Idaho; M.A., Ph.D., University of Iowa.

RIECK, MICHAEL (2000), Associate Professor of Mathematics and Computer Science. B.A., Colby College; M.A., University of Oregon; Ph.D. University of South Florida.

ROBERTSON, ELIZABETH (1987), Associate Professor of English. B.A., College of Wooster; M.A.; Northwestern University; Ph.D., University of Iowa.

ROSBURG, THOMAS R. (1998), Associate Professor of Biology. Director of the Environmental Science and Policy Program. B.S., M.S., Ph.D., Iowa State University.

SANDERS, BRIAN (1989), Associate Professor of Psychology. B.A., Cornell College; Ph.D., University of Tennessee.

SPAULDING-KRUSE, CAROL (1996), Associate Professor of English. B.A., M.A., California State University-Fresno; Ph.D., University of Iowa.

STAUNTON, LAWRENCE P. (1974), Associate Professor of Physics. Chair of the Physics and Astronomy Department. B.S., M.S., Georgia Institute of Technology; Ph.D., University of California-Los Angeles.

SYMONDS, DEBORAH A. (1988), Associate Professor of History. B.A., Bennington College; M.Litt., University of Edinburgh; M.A., Ph.D., State University of New York at Binghamton.

VITHA, MARK F. (1998), Associate Professor of Chemistry. B.A., University of St. Thomas; Ph.D., University of Minnesota.

WIDIAPRADJA, IGNATIUS M. (1985), Associate Professor of Art. B.F.A., University of Texas; M.F.A., Southern Illinois University-Carbondale.

WIRTH-CAUCHON, JANET (1995), Associate Professor of Sociology. Chair of the Department for the Study of Culture and Society. B.A., Western Michigan University; Ph.D., Boston College.

ZEFF, ELEANOR, (2001) Associate Professor of Politics and International Relations. B.A., Tufts University, M.A., Ph.D., New School University.

ASSISTANT PROFESSORS

BERNS, NANCY (2003), Assistant Professor of Sociology. B.A., Doane College; M.A., Ph.D., University of Illinois, Urbana-Champaign.

BROWN, MEGAN (2005), Assistant Professor of English. B.A., Amherst College; M.A., Pennsylvania State University; Ph.D., Pennsylvania State University.

CALDWELL, CURT (2005), Assistant Professor of History. B.A. University of California, Davis; M.A. California State University, Sacramento; Ph.D., Rutgers University.

CAUFIELD, RACHEL (2001), Assistant Professor of Politics. B.A., Hood College; Ph.D., George Washington University.

CONLEY, DEENA (2001), Assistant Professor of Theatre Arts. B.F.A., Marshall University; M.A., University of Oklahoma.

CRAMER, RENAE ANN (2006), Assistant Professor of Law, Politics, and Society. B.A., Bard College; M. Phil., Ph.D., New York University.

CRAVERO, ANN (2003), Assistant Professor of Voice. B.M.E., Bradley University; M.A., University of Iowa.

DHUSSA, RAMESH (1989), Assistant Professor of Geography. B.A., M.A., Patna University; M.A., University of Akron; Ph.D., Kent State University.

DULANEY, JOHN (2006), Assistant Professor of Music. B.A., M.A., Arkansas State University; Ph.D., University of Mississippi.

FAGAN, PATSY J. (1985), Assistant Professor of Mathematics and Computer Science. B.A., Olivet Nazarene College; M.A., Ohio State University; Ph.D., Iowa State University.

GITUA, JOHN, (2005), Assistant Professor of Chemistry. B.S., M.S., Egerton University, Kenya; Ph.D., State University of New York at Binghamton.

HARVEY, JENNIFER (2004), Assistant Professor of Religion. B.A., Westmont College; M.D., Ph.D., Union Theological Seminary.

HE, LIN, (2006), Assistant Professor of Music. B.M., Shanghai Conservatory of Music; M.M., Pennsylvania State University.

HEWAMANNE, SANDYA, (2005), Assistant Professor of Anthropology. B.A. University of Colombo; M.A., Ph.D., University of Texas, Austin.

HUMRICHOUER, ANTHONY (2005), Assistant Professor of Theatre. B.A., Western Michigan University; M.F.A., Rhode Island College.

KNEPPER, TIMOTHY (2004), Assistant Professor of Philosophy. B.A., Eastern Nazarene College; M.D., Ph.D., Boston University School of Theology

LEROUX, KAREN (2005), Assistant Professor of History. B.A., Northwestern University; M.A., University of British Columbia; Ph.D., Northwestern University.

MARRS, LESLIE, (2006), Assistant Professor of Music. B.M. Virginia Commonwealth University; M.M., Florida State University; D.M.A., University of North Carolina.

METRICK-CHEN, LENORE, (2006), Assistant Professor of Art History. M.S., Ph.D., University of Chicago.

MCALISTER, JOAN, (2005), Assistant Professor of Rhetoric. B.A., M.A., Boise State University; Ph.D., University of Iowa.

NELSON, CHARLES (2001), Assistant Professor of Astronomy. B.A. Oberlin College; M.S. Vanderbilt University; Ph.D., University of Virginia.

NORWOOD, LISA WEST (2002), Assistant Professor of English. B.A., Williams College; Ph.D., Stanford University.

OWENS, CRAIG (2003), Assistant Professor of English. B.A., DePauw University; Ph.D., Indiana University, Bloomington.

PATTON-IMANI, SANDRA (2001), Assistant Professor of American Studies. B.A., California State University; M.A. Ph.D., University of Maryland.

ROMAIN, JAMES (2003), Assistant Professor of Saxophone. B.M., M.M., University of North Texas; D.M.A., University of Illinois, Urbana-Champaign.

ROTH, NICHOLAS (2003), Assistant Professor of Piano, B.M., M.M., Indiana University; D.M.A., Michigan State University.

ROTHMAYER, MICHAEL (2002), Assistant Professor of Theatre Arts. B.S., M.A., Southwest Missouri State University; Ph.D., University of Nebraska, Lincoln.

SAYLOR, ERIC (2003), Assistant Professor of Music History. B.M., Drake University; M.A., Arizona State University; Ph.D., University of Michigan.

SIDON, ASHLEY, (2006), Assistant Professor of Music. B.M., M.M., Ph.D., University of Cincinnati College – Conservatory of Music.

SLEISTER, HEIDI (2002), Assistant Professor of Biology. B.A., Central College; Ph.D., University of Iowa

SMITH, DINA (2004), Assistant Professor of English. B.A., Vanderbilt University; M.A., University of Maryland; Ph.D., University of Florida, Gainesville.

SUMMERVILLE, KEITH (2002), Assistant Professor of Environmental Science. B.S., Westminster College; M.En., Ph.D., Miami University, Ohio.

URNESS, TIMOTHY (2006), Assistant Professor of Mathematics and Computer Science. B.S., University of Wisconsin-La Crosse; M.S., Ph.D., University of Minnesota.
VALDOVINOS LODER, MARIA (2005), Assistant Professor of Psychology. B.A., Auburn University; M.S., University of South Alabama; M.A., Ph.D., University of Kansas.
VANDEGRIFT, DARCIE (2004), Assistant Professor of Sociology. B.A., Trinity University; M.A., Ph.D., University of California, Santa Barbara.
WISNIEWSKI, AMY (2004), Assistant Professor of Biology. B.A., Oberlin College; M.A., Ph.D., Johns Hopkins University.
YOUNGER, A. ELIZABETH (2003), Assistant Professor of English. B.A., Humboldt State University; M.A., Ph.D., Louisiana State University.

UNIVERSITY FELLOWS

SHUMAKER, ROBERT (2004), University Fellow, Senior Scientist, Iowa Primate Learning Sanctuary. B.S., M.S., Ph.D., George Mason University.

UNIVERSITY LECTURERS

EVERAGE, WANDA (1988), Vice Provost for Student Affairs and Academic Excellence and University Lecturer; B.A., Drake University; M.A., Ph.D., Iowa State University.
MORRIS, PAUL M. (2001), Chief Information Officer and University Lecturer in Computer Science. B.A., Cambridge University; M.B.A. Harvard University; Ph.D., University of London.

INSTRUCTORS

MOSSER, JOANNA, (2006), Instructor of Politics. B.A., University of Portland; M.A., M. Phil., Yale University
PERRINE, JENNIFER (2006), Instructor of English. B.A., Susquehanna University; M.A., Bucknell University.

LECTURERS

ELLIOTT, CLIVE (1990), Daniel B. Goldberg Artist-in-Residence. Honours Diploma from The Royal Academy of Dramatic Art.
POPPEN, JOSIE, Lecturer in Theatre Arts. B.A., Coe College.
SCHNEIDER, CHRISTINE, Director of the Community School of Music; Lecturer in Music Theory. B.M., M.M., University of Cincinnati College Conservatory of Music.

SECOND LANGUAGE ACQUISITION SPECIALISTS

CADD, MARC (2005), B.A., University of Missouri-Columbia; M.A., University of Houston-Clear Lake; Ph.D., University of Illinois, Urbana-Champaign.
PIPER, PRISCILA (2004), B.C.A., Dallas Baptist University; B.A., M.A.E., University of Northern Iowa.
SAZAWA, CHINATSU (2003), B.A., Aoyama Gakuin University, Tokyo, Japan; M.A., University of Iowa.

EMERITI FACULTY

ABEL, RICHARD O., Ellis and Nelle Levitt Professor Emeritus of English.
ADAMS, FREDERICK, Ellis and Nelle Levitt Professor Emeritus of History.
AKIN, WALLACE E., Professor Emeritus of Geography and Geology.
AUTREY, MAX, Professor Emeritus of English.
BARTON, MIKE, Professor Emeritus of Theatre Arts.
BLACK, RICHARD R., Professor Emeritus of Art.
BROWN, JOANNE H., Associate Professor Emerita of English.
CAMPBELL, BRUCE, Professor Emeritus of English.
CHRISTIANSEN, JAMES L., Professor Emeritus of Biology.
CLARK, C. WALTER, Professor Emeritus of Political Science.
COLEMAN, WILLIAM S.E., Professor Emeritus of Theatre Arts.
CONNER, KAREN A., Professor Emerita of Sociology.

DALEY, A. STUART, Professor Emeritus of English.
 DOWNING, JR., HARRY L., Associate Professor Emeritus of Physics.
 ECKLEY, GRACE, Professor Emerita of English.
 EHRLICH, JOHN, Professor Emeritus of Cello.
 ERICKSON, LEONARD E., Professor Emeritus of History.
 ERICSON, JON L., Ellis and Nelle Levitt Professor Emeritus of Rhetoric and Communications Studies.
 FOSTER, DAVID, Professor Emeritus of English.
 GARFIELD, SALLY, Associate Professor Emerita of Theatre Arts.
 GILDNER, GARY, Professor Emeritus of English.
 HAGLAN, BURTON W., Instructor Emeritus of Biology.
 HANE, NORMAN, Professor Emeritus of English.
 HANSON, SUSAN, Associate Professor Emerita of French.
 HARRIS, CHARLES DAVID, Ellis and Nelle Levitt Professor Emeritus of Music History and Harpsichord.
 HAUPTMANN, MARGARET, Associate Professor Emerita of Voice.
 HESS, STANLEY, Professor Emeritus of Art.
 HICKS, JOHN, Professor Emeritus of Art.
 HODGDON, BARBARA, Ellis and Nelle Levitt Professor Emerita of English.
 HOFFERT, JOSEPH B., Associate Professor Emeritus of Mathematics.
 HOUF, WALTER R., Professor Emeritus of History.
 HOULETTE, WILLIAM, Associate Professor Emeritus of History.
 JACKSON, PAUL J., Dean and Professor Emeritus of Music.
 KADARAVEK, MILAN, Ellis and Nelle Levitt Professor Emeritus of Piano
 KATZ, GEORGE, Professor Emeritus of Music.
 KAWA, FLORENCE, Professor Emerita of Art.
 KEYWORTH, DONALD R., Professor Emeritus of Philosophy.
 KINGSBURY, PHYLLIS, Associate Professor Emerita of Biology.
 KODAMA, ROBERT, Professor Emeritus of Biology.
 KOPECKY, KENNETH, Professor Emeritus of Mathematics and Computer Science
 LARSON, ROBERT, Professor Emeritus of Chemistry.
 LIGHT, JAY, Professor Emeritus of Wind Instruments.
 LIN, CHIU-LING, Professor Emerita of Piano.
 LIN, TSUNG-KUANG, Professor Emeritus of History.
 LINDBERG, JAMES G., Professor Emeritus of Chemistry.
 LLOYD, KENNETH E., Professor Emeritus of Psychology.
 LUCAS, GENE, Professor Emeritus of Biology.
 LUKE, JAMES W., JR., Professor Emeritus of Wind Instruments, Woodwinds.
 LUTZ, ROBERT W., Associate Professor Emeritus of Physics.
 MARCOUILLER, DON R., Professor Emeritus of Music.
 MARTIN, BRUCE K. (1967), Ellis and Nelle Levitt Professor Emeritus of English.
 MARTY, MYRON, Dean and Professor Emeritus of History.
 McCAW, JOHN E., Professor Emeritus of Religion.
 MERKLEY, WAYNE B. (1969), Professor Emeritus of Biology.
 MILLER, DALE, Professor Emeritus of Religion.
 MILLER, KENNETH E., Professor Emeritus of Sociology.
 MILLER, VERN, Assistant Professor Emeritus of Voice.
 MYSZEWSKI, MICHAEL E., Professor Emeritus of Biology.
 NELSON, CHARLES A., Professor Emeritus of History.
 NEWKIRK, WAYNE, Professor Emeritus of Economics.
 O'BRIEN, DENNIS C., Associate Professor Emeritus of Geology.
 OXLEY, THERON, Associate Professor Emeritus of Mathematics and Computer Science.
 PRIETO, HILDA, Assistant Professor Emerita of Spanish.
 RANDIC, MILAN, Ellis and Nelle Levitt Professor Emeritus of Mathematics and Computer Science.
 RANKIN, JANE L., Associate Professor Emerita of Psychology.

ROBINSON, DAVID, Professor Emeritus of Physics.
SAUNDERS, DWIGHT, Professor Emeritus of Economics.
SHULTZ, ROBERT R., Professor Emeritus of Piano.
SORIA, MARIO, Professor Emeritus of Spanish.
STAPLIN, CARL B., Professor Emeritus of Organ and Church Music.
STRATTON, DONALD, Ellis and Nelle Levitt Professor Emeritus of Physiology and Professor Emeritus of Biology.
SWANSON, HAROLD D., Professor Emeritus of Biology.
SWISS, THOMAS, Professor Emeritus of English.
TORRENCE, GAYLORD, Professor Emeritus of Art.
VAN DYCK, ROSEMARIE, Professor Emerita of Spanish.
VEEDER, DAVID A. Associate Professor Emeritus of German.
WEAST, ROBERT D., Professor Emeritus of Wind Instruments, Brass.
WILHOIT, FRANCIS, Thomas Sheehan Professor Emeritus of Political Science.
WILLIS, PAUL G., Professor Emeritus of Political Science.
WORTHEN, THOMAS F., Associate Professor Emeritus of Art.
WRIGHT, R. DEAN, Ellis and Nelle Levitt Professor Emeritus of Sociology.
WUELLNER, GUY. S., Associate Professor Emeritus of Piano.

Graduation Requirements: Bachelor of Arts and Bachelor of Science

GENERAL REQUIREMENTS

Candidates for the Bachelor of Arts and Bachelor of Science degrees must meet all college and University requirements for graduation. Candidates for graduation:

1. must complete a minimum of 124 credit hours, at least 40 of which must be earned in courses numbered 100 and above
2. must complete a major offered in the College of Arts and Sciences
3. must complete the Drake Curriculum general education requirements as described in the front section of this catalog and other University documents
4. except in the case of certain combined degree programs, must complete their last 30 credit hours in residence at Drake University
5. must have at least a 2.00 cumulative grade-point average overall, in their major, in their minor, and in related areas combined.

MAJOR FIELD

As part of the 124 credit hours required for graduation, all students in the College of Arts and Sciences must establish academic competence in a major field. Through this mastery of a core of courses in a single discipline or in closely related disciplines, arts and sciences graduates achieve the depth that is characteristic of educated persons.

It is possible to satisfy the requirements for more than one major. With early and careful planning, students may complete double majors within the 124-credit hour program. Students who anticipate a double major should consult with the Office of the Dean.

A major should be chosen in consultation with an adviser after alternatives have been carefully weighed. While premature specialization is unwise, a major should ordinarily be selected by the end of the sophomore year. It is important that students seeking teaching certification declare their majors early to facilitate program planning.

The following majors are offered: anthropology and sociology; astronomy; biochemistry, cell and molecular biology; biology; chemistry; computer science; English; environmental science; environmental policy; ethics; history; international relations; law, politics and society; mathematics; mathematics education (secondary); neuroscience; philosophy; physics; politics,

psychology; religion; rhetoric and communication studies; sociology; study of culture and society and writing.

Students whose goals lie outside the areas listed above may seek faculty approval to pursue a combination of existing courses as an individualized major.

Students may pursue majors in more than one discipline or area, and, where permissible, may apply particular courses toward majors in more than one discipline or area. For each major, the respective department determines whether its requirements have been fulfilled.

The department from which a transfer student seeks certification as a major may, after examining the student's credentials, require the completion of a certain number of courses to fulfill the major regardless of the amount of work in a discipline or related areas the student has completed elsewhere.

SPECIAL REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE

A student may pursue a Bachelor of Science degree in the College of Arts and Sciences in the Division of Natural Science, Humanities or Social Sciences.

- A. Requirements for majors offered in the Division of Natural Science:
 - 1. A major in a natural science, as determined by the appropriate department. Current majors in the Division of Natural Science are astronomy, biochemistry, cell and molecular biology, biology, chemistry, computer science, environmental science, environmental policy, mathematics, neuroscience, physics and psychology.
 - 2. Twelve credit hours in natural science courses other than in the major area.
 - 3. One course in a natural science requiring a laboratory.
 - 4. Course(s) in either statistics or computer science (minimum of three credit hours).

- B. Requirements for majors offered in the divisions of Humanities or Social Sciences:
 - 1. A major in a discipline other than a natural science, as determined by the appropriate department.
 - 2. A minor in a natural science, as designated by the appropriate minor department.
 - 3. One course in a natural science requiring a laboratory.
 - 4. Course(s) in either statistics or computer science (minimum of three credit hours).

- C. In addition to A or B above, all students pursuing Bachelor of Science degrees in the College of Arts and Sciences must complete all Drake Curriculum requirements as described in the front section of this catalog.

Academic Regulations: Bachelor of Arts and Bachelor of Science

Academic Dishonesty Policy Statement

- 1. Definitions. Academic dishonesty is an all-encompassing term involving any activity that seeks to gain credit for work one has not done or to deliberately damage or destroy the work of others. It includes plagiarism (the misrepresentation, either by intent or negligence, of another's ideas, phrases, discourse, or works as one's own), cheating (the act, or attempted act, of giving or obtaining aid and/or information by illicit means in meeting any academic requirement, including examinations), fabrication (intentional and unauthorized falsification or invention of any information or citation in an academic sense in any academic exercise), and facilitating academic dishonesty (intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty). Examples of such cases include, but are not limited to: a) copying from the Internet or worldwide web and representing it as one's own

thoughts or work; b) copying from another student's paper, laboratory report, or other report, or computer files or listing and representing it as one's own thoughts or work; c) using, during a test or laboratory experiment, material and/or devices not authorized by the instructor in charge; d) without the instructor's permission, collaborating with another, knowingly assisting another or knowingly receiving the assistance of another in writing an examination or in satisfying any other course requirements; e) incorporating into written assignments materials written by others without giving them credit, or otherwise improperly using information written by others (including that which might be stored on computer disks or other technological devices), or submitting commercially prepared papers as one's own; f) submission of multiple copies of the same or similar papers without prior approval of the several instructors involved; g) claiming as one's own work that which was done by tutors or others with no mention of credit to or the assistance of those persons; h) deliberately damaging or destroying another's laboratory experiments, computer work or studio work; i) knowingly obtaining access to, using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; j) substituting for another student, or permitting another student to substitute for oneself, to take a test or other assignment or to make a presentation; k) intentional and unauthorized falsification or invention of any information or citation in an academic exercise; l) forgery, alterations, or misuse of University documents; m) falsifying information submitted or failure to reveal relevant information in any University application form or offering any false information in any University disciplinary proceeding. Each instructor reserves the right to further clarify and define his/her expectations of academic integrity orally or in written form, such as through the course syllabus.

2. Penalties. The penalty for cheating or plagiarism will vary from incident to incident, depending upon the scope and magnitude of the offense and the circumstances in which it occurred; upon the prior record of the person being penalized; and upon evidence suggesting the existence or absence of a pattern of academic dishonesty in the academic performance of the person committing the offense. Possible penalties include a reprimand, grade penalty, dismissal from the course and a recommendation for dismissal from the University. Responsibility for dealing with cases of academic dishonesty begins with the faculty member who identifies an instance of academic dishonesty.
3. Appeals. Not later than fourteen (14) days after an alleged Academic Integrity Policy violation comes to his/her attention, the instructor shall (1) provide the student with written notice describing the alleged violation and (2) make a good faith effort (normally, both an e-mail and a phone mail message during the academic year; and an e-mail and a regular U.S. letter during the summer or winter break) to meet with the student to discuss the alleged violation. After the meeting, or after it becomes clear that the student refuses to meet, the instructor shall exercise professional judgment in selecting his or her course of action. A student may appeal an instructor's decision regarding a violation of the Academic Integrity Policy by notifying the dean or the associate/assistant dean within ten (10) working days of notification of the penalty(s) imposed by the instructor. The dean's office will refer the issue to the chair of the Academic Integrity and Appeals Committee to schedule a hearing. The chair of the Academic Integrity and Appeals Committee will notify the student and the instructor in writing at least ten (10) working days prior to the hearing date. The notification shall include the alleged Academic Integrity Policy violation giving rise to the hearing, hearing procedures, the date, time, and location of the hearing, copies of documents that the committee intends to use at the hearing and the name of the chair. Specific details regarding the hearing process and rights therein will be provided to the student when he or she notifies the dean or the associate/assistant dean of a potential appeal. The Academic Integrity and Appeals Committee will present a verdict. The student or the instructor may appeal the decision(s) of the Academic Integrity and Appeals Committee to the dean. A written notice of appeal must be delivered to the office of the dean within ten (10) working days from the receipt of the

hearing report from the committee. Written details pertaining to this final appeal process are available in the college office. The dean's decision on appeal is final.

Adjustments to Academic Regulations

Students who seek adjustments to the academic regulations of the college may do so by filing an Academic Petition. Students wishing to petition for adjustments should secure the appropriate forms in the college office, obtain the approval of their academic adviser(s) and, if necessary, department chair, and then submit their petition to the associate/assistant dean.

Appeals of Academic Evaluations

A student who wishes to challenge the grading practices of an instructor of the college may appeal for a change of grade. The student must initiate the appeals procedure with the instructor on or before the third Wednesday of the semester following the issuance of the grade in question (excluding summer terms). First, the student must meet with the instructor involved in an attempt to resolve the problem. If the matter remains unresolved, the student must request a meeting at which the department chair (or the program director), the instructor, and the student are present. The student must make this request to the department chair (or program director) by the fifth Wednesday of the semester following issuance of the grade in question (excluding summer terms). The student shall be given the opportunity to explain his/her position and present relevant documentation to the department chair (or program director). The department chair (or program director) shall prepare a written summary of the issues, his or her findings of fact, and a proposed resolution to be presented to the student and the instructor. If the proposed resolution of the chair or director is not satisfactory to the student, he or she may appeal in writing to the dean or associate/assistant dean, who will refer the appeal to the Academic Integrity and Appeals Committee. All appeals must be delivered to the college office within ten (10) working days of presentation of the proposed resolution to the student and instructor. Absent a timely appeal by the student, the proposed resolution of the chair or director becomes final. Upon receipt of the appeal the committee shall invite the instructor to submit a written response to the appeal. The committee will decide whether a hearing is or is not necessary. Written details pertaining to the hearing process are available in the college office.

Credit/No Credit Regulations

Arts and sciences students may take a maximum of 12 hours of coursework on a credit/no credit basis as provided by the general academic regulations of the University. Courses that students elect to take on a credit/no credit basis may be counted toward the fulfillment of the total 124 hours required for graduation and the requirement of 40 upper-division hours, but may not be counted toward other college requirements. Courses offered on only a credit/no credit basis are not included in the 12-hour maximum nor excluded from counting toward a college requirement.

Probation and Suspension

Arts and sciences students are governed by the University policies regarding probation, suspension and satisfactory progress found in the academic regulations section of this catalog. Additional probationary conditions may be imposed by the dean.

Transfer of Non-Drake Credits

The following govern the applicability toward the Bachelor of Arts or Bachelor of Science degree of credit hours earned other than at Drake University:

1. The College of Arts and Sciences complies with all Drake University regulations relating to transfer of college credits.
2. A maximum of 94 hours of transfer credit may be applied to the Bachelor of Arts or Bachelor of Science degree.
3. The Drake College of Arts and Sciences accepts up to 66 credit hours of transfer credit applicable to the Associate of Arts degree from an accredited community or two-year college as any part of the first 94 credit hours toward a bachelor's degree. All transfer students must

successfully complete their last 30 credit hours in residence at Drake to satisfy degree requirements.

4. Credit earned by examination may not be counted as Drake credit toward fulfillment of the requirement that the last 30 credit hours of a student's program be completed in residence courses on Drake's campus.
5. To ensure transfer of credit, students planning to pursue a program at a university or college overseas must consult their advisers regarding the course of study they will follow. The completed program must be signed by the adviser and the associate/assistant dean of the college. Copies of the program must be filed with the dean and the overseas study adviser.

Student Responsibility

Each student must be familiar with the academic regulations of the college and is responsible for completing all requirements for graduation.

Withdrawal Policy

The College of Arts and Sciences follows the "withdrawal" policy outlined in the front section of the catalog under the heading "CURRICULA MODIFICATION." Ordinarily the college permits no exceptions to the official University withdrawal policy. However, under extraordinary circumstances a student may, with adviser concurrence, petition the dean for permission to withdraw late from a course.

Academic Advising

The goal of academic advising in the College of Arts and Sciences is to provide an ongoing and dynamic relationship between each student and adviser in order to facilitate the student's adjustment to and development within the academic environment.

Upon matriculating, each student is assigned a faculty adviser related to the student's areas of interest. Students and advisers work together to develop a program that challenges the student to build upon strengths and overcome deficiencies while meeting educational and professional goals.

The faculty recognize that new interests develop rapidly during the first and sophomore years and that changes of intent are common. Students should consult their advisers frequently as they shape their educational goals.

Transfer students are particularly encouraged to review the evaluation of credit transferred to Drake University and to seek an explanation of how that work is distributed among the requirements of the College of Arts and Sciences. Transfer students are assigned faculty advisers who work closely in planning the completion of degree programs.

Students enrolled on a part-time basis as degree candidates, either as first-year students or transfers, also are assigned faculty advisers. Part-time students are especially urged to see their academic advisers to make long-range plans for their academic programs.

Adviser assignments are usually made by the Office of the Dean. Students may request a specific faculty member or may request a change of advisers. All inquiries regarding evaluation of credit, distribution of credit hours, adviser assignments and changes should be initially directed to the Office of the Dean.

AREAS OF STUDY

Anthropology and Sociology

Degree option: Bachelor of Arts with an interdisciplinary major in anthropology and sociology (ANSO).

Description of program: The major in anthropology and sociology offers a multidimensional perspective on self and society. These fields, concerned as they are with meaning, difference and power, cultivate reflexive, interpretive and empathetic forms of cultural analysis. Drawing together biography, history and ethnography, the major encourages students to critically reflect on the cultural and social diversity of human experience and to seriously engage social problems.

Students who choose the ANSO major benefit from the related yet distinct foci of the disciplines so as to better facilitate their understanding of and participation in a world that is internationally and multiculturally linked.

The major prepares students for a variety of vocations in the global society of the 21st century. It also prepares students for graduate study in anthropology or sociology and for various interdisciplinary areas such as Latin American studies and women's studies. In addition, the major, in combination with appropriate additional coursework, provides a good preparation for law school and other professional fields of study.

Program of study for major: A minimum of 37 credit hours of anthropology and sociology courses that include the following:

1. Two entry-level courses: Introduction to Cultural Anthropology (SCSA 002) and one entry-level sociology course: choose from SCSS 1 – 25.
2. Two theory-intensive courses (one sociology, one anthropology)*. Choose from: SCSA 101 and SCSS 70, SCSS 133, SCSS 151, SCSS 170, SCSS 174, SCSS 175, SCSS 176
3. Two methods-intensive courses (one sociology, one anthropology)*. Choose from SCSA 156, SCSS 156, SCSS 158, SCSS 159
4. Senior Capstone Experience (4 credit hours)*. Choose SCSS 199 and Senior Experience Course.
5. All ANSO majors should complete an additional 15 hours in anthropology and sociology. At least 15 of the 37 hours must be drawn from each disciplinary area.

To graduate with an anthropology and sociology major, students must earn grades of "C" or higher in each of the core courses noted above (1 through 4). Students completing the anthropology and sociology major may not earn a major in sociology nor minor in either sociology or anthropology.

*Transfer courses may not be used to fulfill the theory-intensive, methods-intensive or capstone requirements.

Honors: Qualified students are invited to receive departmental honors, and anthropology and sociology majors are eligible for membership in state, regional and national academic associations.

Minor in Anthropology

Description of program: Anthropology is the scientific and humanistic study of humanity in all times and places. The minor in anthropology at Drake focuses on cultural anthropology, which explores human beliefs and behaviors cross-culturally and historically. As such, it presents a global perspective on the varieties of human experience. At root, cultural anthropology strives to make the strange familiar and the familiar strange. The minor in anthropology at Drake provides students with an opportunity not only to more clearly understand the practices and precepts of others, but also to better understand themselves and their positions in the worlds they inhabit.

Program of study for minor: The requirements for the anthropology minor are completion of a minimum of 18 hours of coursework in anthropology to include one entry-level course and an additional 15 hours of coursework. Up to six of the 18 hours of coursework may be from related disciplines or concentrations. Students who wish to take courses from related areas must petition and have the substitution approved by the anthropology adviser.

Petitions are available from anthropology and sociology faculty. To receive approval for the minor, a non-anthropology course must offer a cross-cultural, global and comparative perspective; examine a geographic area, culture or other subject in a manner amenable to cultural anthropology; or concentrate on or encourage the use of a methodological approach, theoretical framework or substantive problem that is of historical importance and/or complementary to cultural anthropology.

A maximum of 9 hours of transfer credit may be applied toward the anthropology minor.

Astronomy

Degree option: Bachelor of Science with a major in astronomy.

Description of program: The Department of Physics and Astronomy offers a major directed toward a career in astronomy. The first-year and sophomore program includes a combined concentration in astronomy, physics and mathematics.

Most professional positions in astronomy and astrophysics generally require study leading to the Ph.D. degree. Opportunities include research positions in observatories, often in conjunction with university teaching, and scientific positions in government agencies and industry.

Program of study for major: The Bachelor of Science degree requires a minimum of 49 credit hours in astronomy and physics courses in a program to be developed by the student and the adviser and approved by the department. The upper division program concentrates on astrophysics with courses in such areas as mechanics, electromagnetic theory, space and astrophysics.

All programs include the following common core of astronomy and physics courses in the first two years:

First and sophomore years

- Astronomy 1 & 1L — Descriptive Astronomy and Lab
- Physics 5 — Topics in Physics
- Physics 1 — Introductory Physics I
- Astronomy 41 — General Astronomy
- Physics 2 — Introductory Physics II
- Physics 50 — Modern Physics
- Physics 59 — Advanced Laboratory I
- Physics 61 — Error Theory
- Physics 191 — Physics Seminar

Minimum degree requirements also include:

- Astronomy 185 — Introduction to Astrophysics I — Stars
- Astronomy 195 — Introduction to Astrophysics II — Galaxies and Cosmology
- Physics 121 — Theoretical Mechanics
- Physics 122 — Introduction to Electromagnetic Theory
- Physics 182 — Thermodynamics and Statistical Physics
- Physics 192, 193 — Physics Seminar II, III

Select one course from the following:

- Physics 149 — Advanced Laboratory II
- Physics 159 — Advanced Laboratory III

A Senior Capstone Experience is required, which may be either an NSF-sponsored REU experience between the junior and senior years, or one of the courses Physics 197 or 198 — Research Participation taken during the senior year.

Requirements for all programs also include General Chemistry I with laboratory, and related courses in mathematics and computer science appropriate to the options chosen by the student.

Depending on the student's career goals, the academic adviser may recommend additional courses chosen from electives. The following courses are highly recommended for students going to graduate school:

- Physics 133 — Electronics
- Physics 181 — Quantum Theory
- Physics 188 — Advanced Classical Physics
- Chemistry 2 and 4 — General Chemistry II with laboratory

Biochemistry, Cell and Molecular Biology

Degree Options: Bachelor of Arts and Bachelor of Science degrees. The Bachelor of Science degree meets the Biochemistry and Molecular Biology Society guidelines.

Description of Program: The BCMB program introduces students to the chemistry of living organisms and the experimental techniques that are used to probe the structures and functions of biologically important molecules.

The Bachelor of Science major is intended to meet the needs of students seeking careers in molecular life science industries (e.g. biotechnology, drug, food, agriculture and clinical industries), students preparing for health professional schools (medical, veterinary, dental, optometry), and students interested in graduate programs in molecular life sciences (e.g. biochemistry, cell and molecular biology, genetic engineering, medicinal chemistry). The major meets the guidelines of the American Society for Biochemistry and Molecular Biology.

The Bachelor of Arts major is intended to meet the needs of students interested in pursuing cross-disciplinary careers that merge a strong science background with a field of its application. These fields include bioinformatics, forensics, management, marketing, education, public relations, biophysics, biotechnology law and others upon approval of the BCMB Board of Directors.

The Drake BCMB program emphasizes student-centered curricula, early participation in research and broad-based skills development. Students typically become authors on abstracts and manuscripts and work closely with professional scientists.

Programs of Study: Both the B.A. and B.S. majors require students to demonstrate knowledge of course-based content, compile a portfolio and pass cumulative competency examinations. They differ in their content requirements as shown below.

Course-Based Content

Bachelor of Science Degree

Biology 1, 18 or 12, 13 (Biological Sciences)	8 hrs.
Biology 105 (Genetics)	3 hrs.
Biology 165 (Cell Biology)	4 hrs.
Chemistry 1/3, 2/4 (General Chemistry)	8 hrs.

BCMB 99 (Professional Development)	3 hrs.
Chemistry 107/109, 108/110 (Organic Chemistry)	8 hrs.
Chemistry 130/131 (Biochemistry)	4 hrs.
Chemistry 132/133 (Advanced Biochemistry)	4 hrs.
BCMB 161 (Biophysical Chemistry)	
OR Chemistry 165 (Physical Chemistry)	
OR Chemistry 182 (Advanced Analytical)	3-4 hrs.
Biology 126 (Developmental Biology). 4 hrs.	
OR Biology 186/187 (Molecular Biology and Lab) 5 hrs	4-5 hrs.
Chemistry 137 (Advanced Molecular Life Sciences Laboratory)	
OR BCMB 199 (Research)	
OR BCMB 198 (Internship)	3-12 hrs.
BCMB 195 (Senior Seminar)	1 hr.
Physics 11, 12	8 hrs.
Mathematics 50 (Calculus)	4 hrs.

Bachelor of Arts Degree:

Biology 1, 18 or 12, 13 (Biological Sciences)	8 hrs.
Biology 105 (Genetics)	3 hrs.
Biology 165 (Cell Biology)	4 hrs.
Chemistry 1/3, 2/4 (General Chemistry)	8 hrs.
Chemistry 107/109, 108/110 (Organic Chemistry)	8 hrs.
Chemistry 130/131 (Biochemistry)	4 hrs.
Chemistry 132/133 (Advanced Biochemistry)	4 hrs.
BCMB 99 (Professional Development)	3 hrs.
Biology 126 (Developmental Biology), 4 hrs.	
OR Biology 186/187 (Molecular Biology and Lab) 5 hrs.	4-5 hrs.
Chemistry 137 (Advanced Molecular Life Sciences Laboratory)	
OR BCMB 199 (Research)	
OR BCMB 198 (Internship)	3-12 hrs.
BCMB 195 (Senior Seminar)	1 hr.
Statistics or Calculus	3-4 hrs.
Information Systems	3 hrs.
A Writing Course (e.g. Eng 174)	3 hrs.
*Career Focus Area	15 hrs.

*B.A. Students must choose a career focus to complement the science courses by taking at least 15 hours in one allied career field: Computer Science, Pre-Law, Business, Chemistry, Physics, Biology, Pre Medicine, Public Relations, Science Writing or others upon approval.

Portfolios: Students in either major will build a portfolio to illustrate that they have not only learned course content but also developed skills needed to apply these concepts to new problems and contexts (e. g., research, case students, literature reviews, seminars, etc.)

Cumulative Competency Examinations: Students in either major must be able to demonstrate integration and retention of knowledge over their undergraduate tenure. Students taking a Biochemistry and Molecular Biology GRE or MCAT exam may substitute this for the program exam if they score at least at the national average. We recommend taking the program exam during the junior year as an aid in preparation for the MCAT, BMB-GRE, etc.

As with the Bachelor of Science, Bachelor of Arts students will also compile a portfolio and take a comprehensive exam.

Biology

Degree options: Bachelor of Arts and Bachelor of Science degrees with a major in biology.

Description of program: Courses offered in the Biology Department allow students to choose from several areas of study, including preparation for graduate programs, careers in the health sciences, or industry or other areas in the biological sciences.

Students who earn a B.S. or B.A. degree in biology and who meet the entrance requirements may apply to schools of medicine, dentistry, optometry, podiatry, osteopathic medicine, chiropractic, veterinary medicine, physical therapy or other health related programs. Further opportunities include advanced study in graduate school or career positions with industry, government or private agencies in biologically related fields such as biotechnology and conservation biology.

Program of study for major: Minimum of 32 credit hours in biology, of which at least eleven credit hours must be from laboratory courses, including the following requirements:

Biology 12 and 13 — General and Pre–Professional Biology
Biology 191 and 192 — Seminar in Biology
Biology 199 — Senior Capstone Experience

And one course from each of the following five categories (asterisk * denotes courses with laboratory component):

Molecular and Cellular Processes

Biology 105 — Introduction to Genetics
Biology 165* — Cell Biology
Biology 186* — Molecular Biology
Biology 188* — Structural Biology

Biological Diversity

Biology 019* — Introduction to Botany
Biology 101* — Comparative Anatomy of Vertebrates
Biology 103* — Microbiology
Biology 121* — Parasitology
Biology 123* — Biology of Invertebrates

Systems Biology

Biology 018* — Introductory Anatomy and Physiology
Biology 126* — Developmental Biology
Biology 127* — Histology
Biology 129* — Mammalian Physiology
Biology 182* — Immunology
Biology 198 — Endocrinology

Ecology/Evolution

Biology 091 — Understanding Evolution
Biology 117* — Ecology
Biology 125* — Conservation Biology
Biology 152* — Field Botany
Biology 168* — Limnology

Applications of Biological Principles

Biology 024 — Field Ornithology

Biology 061 — Natural History Photography
Biology 095 — Principles of Microbiology
Biology 099 — Biological Research and Statistical Methods
Biology 106* — Research in Genetics
Biology 108 — Emerging Infectious Diseases
Biology 110 — Iowa Natural History
Biology 115* — Aquatic Biology
Biology 119* — Herpetology
Biology 120* — Ecosystem Ecology
Biology 122* — Mammalogy
Biology 138 — History of Biology
Biology 141 — Biology of Terrorism
Biology 156 — Biology Short Course
Biology 158 — Biomedical Aspects of Aging
Biology 167* — Population and Community Ecology
Biology 176* — Neurophysiology
Biology 181 — Introduction to Virology
Biology 185 — Human Genetics
Biology 187* — Cell and Molecular Biology Lab
Biology 189 — Regulatory Biology
Biology 193* — Senior Lab Assistant
Biology 195* — Advanced Molecular Life Science Lab
Biology 198 — Clinical Investigations

Additional requirements for the major include:

Mathematics 20 — College Algebra or higher

Chemistry 1/3 and 2/4 — General Chemistry I and II

Chemistry 107/109 and 108/110 — Organic Chemistry

Physics 11 and 12 — General Physics I and II

Students pursuing the B.A. degree also must take one course, of at least three credit hours, in either calculus, statistics or Computer Science 65.

For the B.S. degree, Computer Science 65 or a course in calculus is recommended. The B.S. degree program is designed to provide experience in research, and students pursuing this degree must complete Biology 99, Biological Research and Statistical Methods, or its equivalent and Biology 197, Undergraduate Research. All undergraduate research projects must be planned with the assistance of the faculty adviser and given approval by the Biology Department prior to the research experience.

No more than 2 credit hours of Biology 197 or its equivalent can be applied toward the Biology major. At the conclusion of their research project, students in the B.S. program must deliver a formal presentation on their research to the department and submit to the department a written or electronic document. Students are required to present their research project in the Biology 192 Seminar course, and must be enrolled in Biology 192 during the semester they give their presentation.

First-year students who plan to major in biology are encouraged to enroll in Biology 15, Introduction to Biology, during the fall semester of their first year. Students have the responsibility to develop their program of study and review it with their faculty adviser in biology.

Program of study for minor: Completion of 20 credit hours in biology, of which at least five credit hours must be from laboratory courses. A minimum grade-point average of 2.00 must be achieved, and credit/no-credit courses may not be used for the minor. The program for the biology minor must be approved by the chair of the Biology Department.

Individualized programs of study that vary significantly from the typical program must be planned with the assistance of the faculty adviser and approved by the Biology Department.

Organizations: Superior students may be elected to the national honor society for biology, Beta Beta Beta, or the premedical honor society, Alpha Epsilon Delta. Students with an interest in medicine may join the Drake Premedical Organization.

Chemistry

Degree options: Bachelor of Arts in chemistry, Bachelor of Science in chemistry. The Bachelor of Science degree program is certified by the American Chemical Society (ACS).

Description of program: The chemistry major provides a solid foundation of scientific knowledge and experimental skills in a setting that emphasizes current developments in chemistry and experience with modern instruments and laboratory techniques.

The Chemistry Department believes that undergraduate research plays a major role in developing critical thinking, practical expertise and independence and helps create a sense of community among faculty and students. Participation in a research project is a requirement for a chemistry degree. The chemistry faculty has research expertise in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry.

Students preparing for graduate study or a professional career in chemistry should pursue the ACS-approved Bachelor of Science program. The Bachelor of Arts program is designed for students who need undergraduate training in chemistry in preparation for professional careers other than chemistry. The Bachelor of Science program is also open to those students.

Program of study for major, Bachelor of Science: The required program for the Bachelor of Science degree with a major in chemistry is listed below.

- Chemistry 1 and 3, 2 and 4 — General Chemistry
- Chemistry 81 — Quantitative Chemical Analysis
- Chemistry 107 and 109, 108 and 110 — Organic Chemistry
- Chemistry 141, 142 – Junior Seminar in Chemistry
- Chemistry 165, 166 — Physical Chemistry
- Chemistry 180 — Advanced Inorganic Chemistry
- Chemistry 182 — Chemical Instrumentation and Methods of Analysis
- Chemistry 192 — Seminar in Chemistry
- Chemistry 199 — Research in Chemistry (at least three credits hours)
- Chemistry electives — two of the following:
 - Chemistry 130 and 131, 132 and 133 — Biochemistry and Advanced Biochemistry
 - Chemistry 155 — Advanced Organic Chemistry
 - Chemistry 190 — Selected Topics in Chemistry.

Program of study for major, Bachelor of Arts: The required program for the Bachelor of Arts degree with a major in chemistry is listed below.

- Chemistry 1 and 3, 2 and 4 — General Chemistry
- Chemistry 81 — Quantitative Chemical Analysis
- Chemistry 107 and 109, 108 and 110 — Organic Chemistry
- Chemistry 141, 142 – Junior Seminar in Chemistry
- Chemistry 165 — Physical Chemistry
- Chemistry 192 — Senior Seminar in Chemistry
- Chemistry 199 — Research in Chemistry (at least three credit hours)
- Chemistry electives — eight credit hours selected from:
 - Chemistry 130 and 131 — Biochemistry
 - Chemistry 155 — Advanced Organic Chemistry

Chemistry 166 — Intermediate Physical Chemistry
Chemistry 180 — Advanced Inorganic Chemistry
Chemistry 182 — Chemical Instrumentation and Methods of Analysis
Chemistry 190 — Selected Topics in Chemistry.

All chemistry majors must take Calculus (Mathematics 50 and 70) and one year of physics. Mathematics 100 is recommended for students taking Chemistry 166.

Program of study for minor: A minor in chemistry may be earned by completing 24 credit hours in the following sequence of chemistry courses: Chemistry 1 and 3, Chemistry 2 and 4, Chemistry 81, Chemistry 107 and 109, Chemistry 108 and 110, and one course chosen from Chemistry 130 and 131, Chemistry 155 or Chemistry 165. A minimum grade-point average of 2.00 must be achieved, and credit/no credit courses may not be used.

Organizations: Students are encouraged to use the chemistry resource room for study, take an active part in Chemistry Club activities and become student affiliate members of the American Chemical Society (ACS).

Computer Science

Degree options: Bachelor of Arts and Bachelor of Science degrees with a major in computer science.

Description of program: The major in computer science, offered by the Department of Mathematics and Computer Science, enables a student to develop an understanding of the theory and practice of computing within the context of a liberal arts and sciences education. In addition to computer programming, majors in computer science study computer languages, logic, data structures and applications of computing. The art and science of problem solving are emphasized.

A degree in computer science can serve as preparation for technical careers such as computer programming, software engineering, systems analysis or system administration. A student with a B.A. or B.S. in computer science is also prepared to serve other disciplines as a problem solver, or to pursue graduate study in computer science. Because of their problem-solving skills, computer science graduates with knowledge of other disciplines may find themselves sought as candidates for graduate study in those fields.

Program of study for major: All programs are to be planned in careful consultation with a departmental adviser and must have the approval of the adviser. Requirements for a major in computer science fall into four categories.

Category 1: 15 hours required.

The following core courses in computer science are required:

CS 65 — Introduction to Computer Science I
CS 66 — Introduction to Computer Science II
CS 130 — Computer Organization and Assembly Language Programming
CS 135 — Programming Languages
CS 137 — Data Structures and Algorithm Analysis
OR CS 139 — Theory of Computation

Category 2: Hours are variable depending on the courses taken.

Each major must select courses that provide programming experience with four different high-level computer languages. This may be accomplished through the computer science or information systems courses that fulfill other computer science major requirements, or by taking

additional courses such as Information Systems 50 (COBOL) or Computer Science 73 (C/Unix, FORTRAN, Java, etc.).

Category 3: 15 to 17 hours with approval of the adviser from the following:

At least nine hours from other computer science courses numbered 100 or above
(excluding CS 140)

Information systems courses numbered 151 or higher

Mathematics 70, Statistics 71, Statistics 72

Economics 107, Economics 176

Upper-division courses in mathematics, statistics, actuarial science or quantitative
methods

(Mathematics 101 and CS 114 may not both be counted; Mathematics 140 may not be
counted)

Other courses chosen with the approval of the department adviser

Category 4: 10 hours required

The following core courses in mathematics are required:

Mathematics 50 — Calculus

Mathematics 54 — Discrete Mathematics

and Mathematics 80 — Linear Algebra.

Since many of the courses that computer science majors take are arranged in sequences, students should be sure the prerequisites are satisfied before enrolling in any of the courses.

Program of study for minor: Students who choose a minor in computer science must have a departmental minor adviser and complete a minimum of 22 hours of computer science and related courses, including (1) CS 65, 66, 130, 135; (2) an additional high-level programming language course and two additional upper-level computer science or information systems courses, both of which must be approved for the program by the adviser (CS 140 — Cooperative Education may not be included), and (3) Mathematics 54 — Discrete Mathematics. Completion of Mathematics 80 — Linear Algebra is strongly recommended.

Economics

See Economics under College of Business and Public Administration.

English

Degree options: Bachelor of Arts with majors in English and Writing.

Description of program: The program in English is committed to establishing a habit of lifelong learning that emphasizes the relationship of reading, writing and critical thinking. Undergraduate English and Writing majors will be able to:

- reflect critically on issues of textual representation in a diverse set of texts from literary classics to contemporary film, from the Anglo-Saxon canon to postcolonial and feminist expansions of that canon;
- reflect on habits of reading and writing and be able to identify their strengths and limitations in particular contexts;
- use a wide range of styles and approaches in their writing;
- understand the interrelated nature of writing, reading, thinking, and creating;
- read a text with close attention to its many facets;

- understand past, present, and potential approaches to English studies and its relationship to other academic disciplines;
- be aware of a variety of aesthetic, political, material and social contexts for and approaches to English studies.

Our courses involve students in a range of activities, including discussions (in class and on-line), collaborative projects, conferences, presentations and service learning.

The English Department is committed to supporting interdisciplinary programs and encourages students to pursue interdisciplinary concentrations, second majors and/or minors. A number of the Department's courses are cross-listed with interdisciplinary programs, facilitating such study. In addition, both the English major and the Writing major permit students to include related courses taken outside the department for credit toward their program of study, subject to approval by the student's English Department adviser (see below).

Our graduates pursue professional careers in such fields as advertising, publishing, education, management, computers, public relations and public service, or pursue post-baccalaureate study in English studies, law school or medical school. Students contemplating graduate study should confer with their advisers about special preparation and should be aware that many graduate schools typically expect proof of competence in foreign languages. Students interested in pursuing careers in primary or secondary education can obtain certification by completing the appropriate professional courses in teacher education.

Programs of study: The English department offers the English major, Writing major, English minor and Writing minor.

Program of study for the English major: The English major consists of 36 hours of course work: a common core of 24 hours, plus 12 hours of electives. Students may take up to 6 hours of electives in relevant course work outside of English, with adviser approval. At least 18 hours of the required 36 must be 100-level courses. Asterisked numbers indicate topic courses that can fulfill a requirement when the topic is appropriate to that requirement. An English course may be used only once to fulfill a particular major requirement. (ENG 54, for instance, may fulfill either Genres or Historicity, but not both.) Transfer students majoring in English must take at least 18 hours of English at Drake. Students with AP credits will be credited 3 hours of lower-level elective toward the major:

Core Courses (6 hours)

- ENG 60 Literary Study (Should be taken 1st or 2nd year)
- ENG 61 Writing Seminar (Should be taken 1st or 2nd year)

Genres of Representation (Choose one)

- ENG 30, 50*, 54, 70, 90, 91, 92, 93, 99*, 111, 112, 113, 114, 115, 116, 120*, 122, 126, 128, 130, 133, 135, 156, 174*, 197*, 198*

Historicity (Choose two)

- ENG 42, 44, 54, 56, 58, 99*, 124, 128*, 130*, 131*, 142, 143, 145, 147, 150, 152, 174*, 175*, 182*, 197*, 198*

Culture & Identity (Choose one)

- ENG 20, 65, 66, 67, 68, 75, 77, 86, 99*, 124*, 148, 162, 163, 164, 165, 166, 168, 174*, 178, 188, 195, 197*, 198*

Critical Practice & Theory (Choose one)

ENG 160, 171, 173 (Should be taken in the third year, before the capstone)

Capstone (Choose One)

One English course numbered 175-197, excluding 196.

Electives (Four courses)

Twelve hours of adviser-approved courses in a related area of interest. Students are encouraged to select courses from our curriculum that best suit their interests, concentrating their selections in specific areas. A total of six hours can be taken outside the department with adviser approval.

Program of Study for the Writing major:

Each student, in regular consultation with a department adviser, works out an individual program to complete 37 credit hours in English. Asterisked numbers indicate topic courses that can fulfill a requirement when the topic is appropriate to that requirement. An English course may be used only once to fulfill a particular major requirement. Three credits toward the major (at the 20-99 level) are given for Advanced Placement. Transfer students must take a minimum of 18 credit hours in the Drake English Department.

Core Courses (9 hours)

ENG 60 Literary Study (Should be taken 1st or 2nd year)

ENG 61 Writing Seminar (Should be taken 1st or 2nd year)

ENG 20-80, 99 Choose one

Writing Core (12 hours)

Choose Two: ENG 86, 90, 91, 92, 93, 94, 95, 99*

Choose Two: ENG 102, 109, 111, 112, 113, 114, 115, 116, 171, 174*, 183, 197*, 198*

Area of Interest (12 elective hours)

Twelve hours of adviser-approved courses in a related area of interest. Courses may be from outside English and 9 hours must be at the 100-level. Sample areas of interest include creative writing, creative non-fiction, documentary film, cultural studies, new media, non-fiction and editing, and so on. Students are free to design their own area of interest.

Capstone (4 hours)

Choose one: ENG 175-197, excluding 196

ENG 196, Writing Portfolio

Students in either major should take English 60 and English 61 in the first or second year. The department recommends that students take courses numbered 20-99 earlier in their plan of study, for the purpose of preparing themselves for courses at the 100-174 level. English 196 is intended as a capstone, and students should enroll in it near the completion of their programs.

Program of study for the English minor: Minimum of 18 credit hours in English, including ENG 60 and ENG 61, and at least six credit hours in courses numbered above 100. An English faculty adviser is required.

Program of study for the Writing minor: Minimum of 19 credit hours in English, including ENG 60, ENG 61, one from each of the two columns in the writing core, and ENG 196. An English faculty adviser is required.

Environmental Policy

Degree option: Bachelor of Arts with a major in environmental policy.

Description of program: This interdisciplinary degree prepares students in a liberal arts tradition to understand the connections between human beings and the Earth's environment. The goal is to enable students to understand the intersection of social and natural sciences that produces environmental policy.

Students will develop skills in decision-making, policy formulation and implementation, adaptive management, and critical thinking. Graduates of the program will be well prepared to undertake graduate study in environmental law or policy, as well as to work in governmental and non-governmental capacities on environmental issues and policy-making.

Program of study for the major:

Minimum 45 credit hours. Students must complete the following courses to earn a degree in environmental policy:

Social Scientific Literacy: Environmental policy is forged at the intersection of scientific and political systems; therefore students will need to be familiar with the political institutions that reconcile conflicts between these systems. Students with an interdisciplinary environmental policy degree will be conversant in multiple discourses that influence environmental policy.

- ECON 2 – Principles of Microeconomics
- ECON 109 – Public Economics OR
 - OR ENSP 154 – Environmental Decision-Making
- POLS 001 – American Political System
- POLS 114 – Public Opinion
 - OR POLS 116 – Media and Modern Politics
 - OR ENSP 110 – National Environmental Policy
- POLS 155 – American Public Policy
- ENSP 156 – Environmental Politics and Policy
- ENSP 157 – Environmental Justice
 - OR REL 140 – Ecological Ethics
 - OR a course approved by the ENSP faculty
- ENSP 191 – Environmental Science and Policy Practicum (Senior Capstone)

Natural Scientific Literacy: Students are required to take courses from the relevant scientific disciplines. Ecology is at the heart of many environmental discussions. Geology provides basic understanding of the earth and the physical processes that shape and affect landscapes. This background is linked to environmental interactions in a course focused on the study of environmental issues. Finally, students are expected to take a course in statistics to develop an understanding of research and the analysis of data.

- BIO 001 – Introduction to Biological Science
- BIO 117 — Ecology
- BIO 118 – Ecology Laboratory
- STAT 071 – Statistics I
 - OR SOC 158 – Social Science Statistics
 - OR BIO 099 – Biological Research and Statistical Methods
- ENSP 035– One Earth: Global Environmental Science
- ENSP 036 – One Earth: Global Environmental Science Laboratory
- ENSP 041 – Geology
 - OR PHYS 051 – Energy and the Environment
 - OR ENSP 105 – Environmental Geology

Program of study for the minor: All minors must have an adviser in the program and must successfully complete 23 credit hours that fulfill the following requirements:

BIO 001 – Intro to Biological Science
ECON 002 – Principles of Microeconomics
ENSP 035 – One Earth: Global Environmental Science
ENSP 036 – One Earth: Global Environmental Science Laboratory
ENSP 154 – Environmental Decision Making
 OR ENSP 157 – Environmental Justice
POLS 1 – American Political System
POLS 114 – Public Opinion
 OR POLS 116 – Media and Modern Politics
 OR ENSP 110 – National Environmental Policy
 OR ENSP 111 – International Environmental Policy Seminar
ENSP 156 – Environmental Politics and Policy

Environmental Science

Degree option: Bachelor of Arts [or Bachelor of Science*] with a major in environmental science.

* See requirements for Bachelor of Science in printed earlier in the course catalog.

Description of program: This interdisciplinary science degree prepares students in a liberal arts tradition to understand connections between human beings and the Earth environment. Drake environmental science students are grounded in the natural sciences disciplines but also develop the additional ability to synthesize information across disciplines. Students gain technical skills including quantitative laboratory and field methods, statistical analysis and the scientific operation of geographic information systems (GIS), while also developing context by including courses in economics, politics, policy and ethics. Graduates of the program will be well prepared to undertake graduate study in diverse fields of environmental sciences, as well as to work in governmental and non-governmental capacities on environmental issues.

Field work is a key component of this degree, featured in biology, geology and environmental classes. Iowa's central location in the nation allows students to experience a diversity of ecosystems and human communities during frequently offered weekend, semester break and summer field trips. The program also connects students with ongoing environmental projects at the Neal Smith National Wildlife Refuge (an 8,000-acre prairie restoration project including bison and elk, 20 miles east of campus), with offerings at Iowa Lakeside Laboratory in Milford, Iowa, (managed through Iowa State University), and with semester-long marine science experiences at the University of Southern Mississippi's Gulf Coast Research Laboratory in Ocean Springs.

Program of study for major: Minimum 56 credits. Students must complete the following courses to earn a degree in environmental science:

BIO 001 — Biological Sciences
BIO 018 – Introductory Anatomy and Physiology
BIO 117 — Ecology
BIO 118 – Ecology Laboratory
CHEM 001 – General Chemistry I
CHEM 002 – General Chemistry I Lab
CHEM 003 – General Chemistry II
CHEM 004 – General Chemistry II Lab
CHEM 081 — Quantitative Chemical Analysis
 OR CHEM 107 – Organic Chemistry
ENSP 35 — One Earth: Global Environmental Science
ENSP 036 — One Earth: Global Environmental Science Lab
ENSP 065 – Geographic Information Systems

ENSP 041 – Introduction to Geology
 OR ENSP 51 – Energy and the Environment
 OR ENSP 105 – Environmental Geology
 ENSP 135 – Global Change: Science and Policy
 ENSP 154 – Environmental Decision-Making
 OR ENSP 156 – Environmental Politics and Policy
 OR ENSP 157 – Environmental Justice
 BIO or ENSP elective (100-level and adviser approved)
 ENSP 100-level field course (adviser-approved)
 ENSP 191 — Environmental Science and Policy Practicum (Senior Capstone)
 POLS 001 — American Political System
 OR POLS 75 – World Politics
 STAT 071 and STAT 072 – Statistics I and Statistics II
 OR BIO 099 – Biological Research and Statistical Methods
 OR STAT 060 – Statistics for Life Sciences

Students are strongly encouraged to develop additional depth in focus areas of interest to them beyond the common required outline, in conversation with their academic advisers and the program director. Students planning to attend graduate school should work carefully with their adviser to determine what additional courses will be needed to prepare for graduate admission.

Program of study for the minor: All minors must have an adviser in the program and must successfully complete a minimum 21 credit hours that fulfill the following requirements:

ENSP 035 – One Earth: Global Environmental Science
 ENSP 036 – One Earth: Global Environmental Science Laboratory
 BIO 001 – Introduction to Biological Science
 BIO 117 – Ecology
 BIO 118 – Ecology Lab
 ENSP 065 – Geographic Information Systems
 OR ENSP 041 – Introduction to Geology
 OR ENSP 105 – Environmental Geology
 OR ENSP 135 – Global Change: Science and Policy
 ENSP elective in Environmental Policy
 ENSP 100-level elective

Ethics

Degree option: Bachelor of Arts degree with a major in ethics.

Description of Program: The Ethics Major is a multi-disciplinary major which has a core of philosophy courses providing a philosophical foundation for ethical inquiry and additional courses from 5 related fields to complement this traditional foundation with critiques, supplements and alternative approaches. Students with this major will have a familiarity with discussing ethical issues across disciplines, analyzing ethical issues from a variety of perspectives and a greater understanding of the issues involved in ethical inquiry.

Program of study for major: 42 hours of course work

- Philosophy 90 — Ethics
- 24 hours from multi-disciplinary areas (Historical/Philosophical Grounding; Religious Ethics/Theology; Literature, Rhetoric and Culture; Social, Psychological and Biological Bases of Morality; and Ethics and Public Policy/Society)
- Minimum of 3 hours in each of the 5 areas and no more than 9 hours in any area counting toward major
- Midlevel (4th or 5th semester) seminar with service learning component (overlapping some other requirement)

- Senior Capstone with service learning component
- No fewer than 30 hours at 100+ level

Program of study for minor: 21 hours of course work

1. Philosophy 90 — Ethics
2. 3 hours from the Traditional Ethics Core — Theory subsection
3. 3 hours from the Traditional Ethics Core — Applied subsection
4. 12 hours from multi-disciplinary areas
5. Minimum of 3 hours from 3 of 5 multi-disciplinary areas
6. Midlevel (4th or 5th semester) seminar with service learning component (overlapping some other requirement)

Geography

Description of program: A minor in geography (emphasizing cultural geography) may be combined with an academic major in another discipline. Geography is the holistic study of the earth's surface features, factors, processes and relationships, and how they change over space and time. An understanding of geography is essential in an increasingly populated world where environments are more strained, economies are more global, and cultures are more intermingled.

Program of study for minor: Minimum of 19 credit hours in geography. All geography minors complete a 10-credit-hour core of introductory courses — ENSP 21 and SCSG 3 — and the introductory techniques course, ENSP 65. In addition, the geography minor requires at least two three-credit upper-division courses in geography.

History

Degree options: Bachelor of Arts degree with a major in history.

Description of program: The History Department provides undergraduates with an historical perspective from which they can analyze the contemporary world.

The department's courses do not emphasize the accumulation of information about particular events or periods. Instead, they investigate those ideas and institutions by which people have attempted to shape and order their world. We are especially interested in periods that experience pronounced social, economic and political conflict. We believe that comparative history is an effective way to achieve many of our goals.

The History Department's program helps students learn to think clearly, to analyze and interpret a broad range of materials and to express themselves both orally and in writing. Courses equip students with the analytical and interpretive skills they require to become enlightened citizens, to pursue professional and business careers and to continue with the advanced study of history.

The department offers several categories of courses. Introductory courses provide general coverage of specific topics. Advanced level courses and colloquia involve intensive examination of complicated subject matter. Seminars require the completion of a major research project or projects.

The department also offers a number of special interest courses and encourages students to propose their own independent study projects. Individuals considering careers that demand the historian's skills should examine the Apprenticeship Program.

Students majoring in history can look forward to careers in business, industry and government service as well as in libraries and archives. They find that a history major prepares them to enter graduate programs in law, business and history. Those wishing to teach in public schools can obtain certification by completing the appropriate professional courses in teacher education.

Program of study for major: 39 hours in history or 27 hours in history and 12 hours in a single related field. Students must receive their academic adviser's approval of the related field. All majors must take 12 hours of Introductory Courses, including History 1 and 2, six hours of Colloquia and three hours of a Research Seminar, described below.

Introductory Courses (numbered 1-99) are designed for students who have a limited background in history. They focus on a number of broad trends that developed within a specific region or country over an extended time period. They also acquaint students with differing schools of historical interpretation.

Colloquia (numbered 150-169) are designed for qualified upper division students who wish to examine a specific topic in great depth. Colloquia are limited to 20 persons and involve reading a large quantity of material about complex and controversial issues. Students are required to analyze and discuss the reading material as well as to write a series of short essays on assigned topics.

Research Seminars (numbered 180-190) are designed for individuals in their junior and senior years who have demonstrated an ability to deal with complex historical issues. The courses are limited to 15 persons and involve the satisfactory completion of a significant amount of research in primary material. Students are expected to participate fully in class discussions, present oral reports and produce competently researched and written papers.

History majors who have an overall GPA of 3.25 and a GPA in history of 3.50 by the end of the fall semester of their junior year qualify for the History Department Honors Program. Extending over the two semesters of the senior year, this program involves the completion of a major research project. Interested students should consult with the department chair for more details.

Program of study for minor: 21 credit hours, which must include six hours in Advanced Level Courses (numbered 110-149) and six hours in Colloquia (numbered 150-169). The student's major adviser can supervise the program for the history minor.

International Relations

Degree option: Bachelor of Arts degree with a major in international relations.

Description of program: The international relations major is an interdisciplinary program designed to meet the needs of students interested in understanding and/or working in international affairs. The goal is to train students for responsible global citizenship and entry into internationally related jobs in business, government or international public or private agencies.

The curriculum is designed to provide greater breadth than is possible by concentration in a single discipline, yet permit sufficiently focused study in international affairs to prepare the student for direct entry into the field of international service or continued post-graduate study.

Program of study for major: Completion of requirements in five interdependent areas described below.

1. Foreign Language Requirement: Students must demonstrate functional competence in a second language (including reading, writing, speaking and oral comprehension) prior to graduation. Options for achieving the necessary competence include family background or life experience, high school training, college coursework (by transfer from another institution), study abroad, independent study and participation in the Drake Language Acquisition Program. The necessary level of competency will normally be demonstrated by examination.
2. The Basic Core: 18 credit hours. All International Relations majors must complete the following basic requirements:

Economics 1 — Principles of Macroeconomics
Economics 2 — Principles of Microeconomics
Politics 65 — Comparative Politics
Politics 75 — World Politics
and either
SCSG 002 Human Geography
or
SCSG 003 World Regional Geography
and either
Hist 113 – America as a World Power
or
Politics 179 – American Foreign Policy

3. Comparative Perspectives: minimum of 12 credit hours. Majors are required to take a minimum of 12 credit hours under Comparative Perspectives. Of these, 6 hours must be taken in a single regional area. Options include Europe, Latin America, and Asia. Also, at least 3 hours must be taken under the Cross-Regional category. The remaining 3 hours may be taken in any of the four categories (these final 3 credits may be waived for students who study abroad). Relevant courses taken through study abroad programs may count toward the Comparative Perspectives requirements. Also, relevant Drake courses offered on an occasional basis may be considered. In all cases, the choice of courses must be made with the approval of the student's academic adviser. See the course description section for information on the courses listed below.
 - A. Europe: SCSG 132;
History 133, 134, 137;
Politics 128, 160, 161, 171.
 - B. Latin America: History 123, 125, 126;
Politics 164.
 - C. Asia: SCSG 135; History 22, 127, 128, 129, 153; SCSS 130.
 - D. Cross-Regional: Politics 129, 165, 166, 168; Religion 5; History 161.
4. Thematic Perspectives: Majors are required to take a minimum of 12 credit hours of coursework under Thematic Perspectives. Nine hours must be taken in a single category. Options include International Politics and Economics, International Peace and Conflict Studies and International Values and Ethics. The remaining 3 hours must be selected from among the courses listed under one of the remaining categories. Relevant courses taken through study abroad programs may count toward the Thematic Perspectives requirements. Also, relevant Drake courses offered on an occasional basis may be considered. In all cases, the choice of courses must be made with the approval of the student's academic adviser. See the course description section for information on the courses listed below.
 - A. International Politics and Economics: Economics 130, 134, 175; Politics 109, 171, 172.
 - B. International Peace and Conflict Studies: English 126, 166; History 169, 185; Politics 121, 123, 175, Psy 134; SCSR 112.
 - C. International Values and Ethics: Politics 124, 170, 173, 176; Religion 155; JMC 148.
5. International Relations Seminar: Majors are required to complete Politics 192: International Relations Seminar. This course is offered each spring and must be taken during the Senior year. Politics 192 counts as a Senior Capstone under the Drake Curriculum.

Students also are encouraged, though not required, to study abroad during either their sophomore or junior year. Students studying abroad may waive 3 of the 12 credits required under Comparative Perspectives. Students should consider study abroad options in consultation with their academic adviser and the study abroad coordinator. Information on careers, internships and

graduate programs related to international affairs may be obtained from academic advisers and the Center for International Programs and Services.

Language Acquisition Program (DULAP - Drake University Language Acquisition Program)

The learner-centered Directed Independent Language Study (DILS) model that Drake has adopted in place of traditional classroom language instruction is the Drake University Language Acquisition Program (DULAP; <http://www.drake.edu/dulap/>). DULAP is based upon a clear sense of mission: to allow students to gain functional competence in using a second language for work, travel and everyday life.

DULAP addresses the clearest need for language training at Drake: functional usage. Drake has many students who wish to achieve competence in using another language for purposes in their daily lives: living, working or traveling abroad, interacting with business or professional contacts in other countries, communicating with immigrant populations in the United States, etc. This mission also encompasses familiarity with the cultures associated with the target language, though cultural training may be approached differently than in the case of the traditional language major. Although most students choose to study Spanish or French, few are beginners; more commonly, students have "studied" a language without having learned how to use it. Part of DULAP's challenge with these students is to help them move from using verb charts and thinking in English to thinking and speaking in their target language. And DULAP has a small but steady enrollment in less commonly taught languages. Because DULAP has no majors or minors, students fit language study into their own major requirements as they can. It is common for some majors to study language one semester, then miss a semester because of their major program requirements, then come back to continue their language study another semester.

Although DULAP has no majors or minors, education majors wishing to teach French, German or Spanish at the secondary level may take courses to earn a teaching endorsement in those languages. For details about the endorsement, see the School of Education.

DULAP offers nine languages: French, Spanish, German, Italian, Arabic, Mandarin Chinese, Japanese, Russian and Hindi. Students take a 3-credit DILS (directed independent language study) course and a co-requisite 1-credit Language Learning Strategies course. DULAP employs a twenty-station Mac lab where students access target-language multimedia and use digital audio and video to make ePortfolios showing their process and progress in language learning. Students meet twice a week (in groups no larger than four) with a native speaker/language partner who acts as a facilitator (not a teacher). Language partners are great resources for information about their language and culture, and seem to take on the role of cultural representative with a good deal of seriousness. Interaction between students and language partners offers natural opportunities for cultural content to be studied as an essential part of the language studies. And students follow a detailed syllabus and prepare assignments to practice with the language partner; students meet a third hour with their study group to work on collaborative assignments such as peer editing, script writing, making videos and reviewing workbook assignments.

Most language partners are international students at Drake, and they are trained, mentored and monitored by our language coordinators (one for French, German, Russian and Italian, one for Spanish, and one for Arabic, Chinese, Japanese and Hindi). Language coordinators are second language acquisition professionals whose role with language learners is more like a coach than a teacher. Coordinators monitor practice sessions and study groups, and hold regularly scheduled one-on-one conferences with their students.

DULAP'S assessment approach is two-pronged. First, DULAP uses independent examiners, usually professors from other universities who teach the language and level they examine, to administer individual interviews and written exams twice each semester. Students are evaluated with a rubric and receive written comments from the examiner. All exams are recorded on video, and students review them as part of their self-evaluation process. Each course has skill-based objectives consistent with the ACTFL guidelines, so students understand what they are expected to be able to do and how they will be assessed.

The second assessment strategy is learner-centered: students create ePortfolios showing milestones in their language learning across the semester (writing samples, sound bites, videos, mediated chat transcripts...). Students learn or refine their self-assessment techniques and reflective writing as they prepare to present their ePortfolios.

Students are strongly encouraged to augment their DULAP training through study abroad, where they can gain an immersion experience in the target language. A number of Drake's new international partnerships include student exchange opportunities designed with language learning as a significant component. DULAP is, however, more than simply a means to prepare students for overseas language study. Students who wish to pursue advanced levels of language learning or to explore topics in culture and literature can do so through DULAP. Many students return from a study abroad experience and continue their language studies in DULAP. Often, returning students appreciate the opportunity to continue honing their target-language critical thinking and speaking skills, as well as the chance to pursue an in-depth study of the culture in which they were immersed.

Law, Politics, and Society

The Law, Politics and Society program offers students a multidisciplinary perspective on the complex interactions of law, culture, economics, politics, and social structure. Situated firmly within a liberal arts education, the program does not treat law as a fixed, naturally given feature of social life, or as a professional practice reserved for specialists such as lawyers, judges, and legislators. Instead, the program understands law, as a pervasive part of everyday life, to be socially constructed and contested. The LPS major is designed to prepare students for effective participation as citizens in a civil society. In this major students will:

- participate actively as citizens in civil society;
- read and understand legal texts, court decisions, and theoretical writing, and use those texts effectively to convey complex ideas and arguments in writing;
- know and articulate the difference between law as a professional practice and law as a topic of liberal arts inquiry;
- demonstrate awareness of how issues of justice, morality, authority, order, legitimacy, individualism, and community create tensions within ordered social life;
- explain how historical development and different cultural practices, social organizations, and political systems affect law and justice around the world;
- assess critically how people interpret, respond to, and experience law and the legal system based on factors such as race/ethnicity, class, gender, and religion;
- deploy contemporary legal, critical, and/or interpretive theories in their own analyses of political, social, or legal events or situations.

Oversight for the program is provided by an interdisciplinary Advisory Board with one member from each of the core departments affiliated with the program: English, History, Philosophy and Religion, Politics and International Relations, Rhetoric and Communication and Sociology. Advising for the major is divided among faculty in these core departments. Several courses from the Drake University Law School may be used to fulfill major requirements.

Major Requirements: The major in Law, Politics, and Society requires a minimum of 42 credit hours. Students must complete the required number of courses in each of the following categories, bearing in mind that enrollment in upper-level courses may have a lower-level course prerequisite. While several courses are listed as options in more than one category, students may count each course towards only one major requirement. A number of other courses may be used to fulfill the requirements for each category. Students should consult with their advisers for approval of courses not listed here.

- I. **Core Courses:** The core courses for the major in Law, Politics, and Society are designed to provide programmatic coherence to an interdisciplinary major with a wide array of course options. Students must take one introductory course that will introduce them to themes

related to Law, Politics and Society. First Year Seminars on these topics will be designated as options for this requirement. Other introductory level courses will be offered as options as well. Students also will take an intermediate-level core course entitled Law, Politics and Society. Finally, students will be required to take a Senior Capstone seminar. The specific content of the Senior Capstone course may vary from year to year but will explore general themes related to the study of Law, Politics and Society.

A. Introductory Course (Complete 1 of the following courses)

LPS 24/ SCSR 24: Rhetoric as Liberal Art
SCSS 016: Introduction to Sociology: The Quest for Civil Society

Each year, relevant First Year Seminars may be designated as options fulfilling this requirement. You should consult with your adviser about first year seminar options.

B. Intermediate Course (Students must complete the following course during their sophomore or junior year)

LPS 100: Law, Politics, and Society

C. Senior Capstone Course

LPS 190: Seminar in Law, Politics, and Society

II. Law and Public Life: Liberal societies based on the rule of law are characterized by the creation of laws within democratic political institutions, the rigorous interpretation of those laws and the application of those interpretations in practice as they affect issues of public policy and individuals and groups in society. Students should be familiar with some applications of the law, the impact of the law on controversial policy issues and the political institutions that make and implement the law. Accordingly, students must complete the requisite number of courses in each of the following categories:

A. Law (Complete 3 courses):

BLAW 60: Business Law
JMC 104: Communication Law and Ethics
POLS 153: Judicial Politics
POLS 170: International Law
POLS 186: Politics and Religion
POLS 190: Seminar in Constitutional Law
SCSR 140: Communication and Law
WS 195: Women and Law

These courses are offered by the Drake University Law School. A limited number of seats are open to upper-level undergraduates with the permission of the instructor and if spaces are available:

LAW 248: Civil Rights Law
LAW 330: Sexuality and the Law

B. Public Policy, Social Issues, and the Legislative Process (Complete 2 courses):

ECON 109: Public Economics
ECON 115: Labor Economics
ENSP 035: One Earth: Global Environmental Science
ENSP 191: Environmental Science and Policy Practicum

POLS 112: Women in Politics
POLS 130: State Government and Administration
POLS 151: The American Presidency
POLS 152: Congress and the Legislative Process
POLS 153: Judicial Politics
POLS 155: American Public Policy
POLS 156/ENSP 150: Environmental Politics and Policy
SCSS 140: Youth and Crime
SCSS 151: Criminology
SCSS 170: Deviance
SCSS 175: Social Stratification

- III. Historical Context: Students should understand the historical foundations of liberal institutions, of law and government, and of conceptions of democratic citizenship. They should be able to locate contemporary American society in relation to past periods in their own and other societies that have incorporated these institutions and conceptions. Students must complete two courses from the following list:

HIST 110: The Era of the American Revolution, 1763-1789
HIST 112: Civil War and Reconstruction
HIST 113: America as a World Power
HIST 133: 19th Century Europe
HIST 190: Seminar in American History
SCSR 110: American Public Address

- IV. Comparative and Global Context: National laws and politics are integrally shaped by the dominant cultures of respective nation-states, and international law and politics fundamentally reflect the cultural values of the most powerful nations in world politics. The course options in this section provide students with opportunities to study legal and/or political frameworks from other countries as well as varying cultural perceptions regarding the authoritative sources of law and political legitimacy. Students must complete two of the following courses:

HIST 123: Modern Mexico
HIST 134: Contemporary Europe
POLS 121: UN and Global Security
POLS 160: Modern European Political Systems
POLS 164: Government and Politics in Latin America
POLS 168: Politics and Parliaments
POLS 170: International Law
POLS 173: Human Rights and World Politics
POLS 179: American Foreign Policy

- V. Social and Ethical Context: Law and policy are the end products of political struggles and are shaped fundamentally by the competing values of the various political and social actors involved in these struggles. Students who pursue the Major in Law, Politics and Society will reflect on the ways in which questions of values shape law and policy. They will examine the moral dimensions of laws and politics. The course options in this category are designed to give students the tools for making informed choices and acting as effective citizens. Students must take two of the following courses:

ECON 109: Public Economics
ENG 124: Salem Witch Trials
ENG 168: Storytelling as a Social Practice
PHIL 090: Ethics
PHIL 112: Social Philosophy
POLS 117: Race and American Politics

POLS 173: Human Rights and World Politics
POLS 180: Classical Political Theory
POLS 181: Modern Political Theory
POLS 185: American Political Theory
POLS 186: Politics and Religion
REL 155: Introduction to Liberation and Feminist Theologies (cross-listed with WS 140 and HONR 115)
SCSR 114: Rhetorics of Race
SCSS 161: Race and Ethnic Relations
SCSS 170: Deviance

Mathematics

Degree options: Bachelor of Arts and Bachelor of Science degrees with a major in mathematics or mathematics for secondary education. Graduate programs leading to the Master of Science in Education and Master of Arts in Teaching degrees in mathematics also are available through the School of Education.

Description of program: Students majoring in mathematics are able to plan programs appropriate for careers that require understanding of structures and patterns and analysis of data.

Opportunities for mathematics majors arise in computing or high technology firms, chemical and pharmaceutical manufacturers and with government agencies, financial institutions and the insurance industry

Students wishing to continue their studies beyond the B.A. or B.S. degree are typically prepared for graduate study in mathematics or in related areas, such as business administration (M.B.A. program) and economics.

Program of study for major in mathematics: Students must complete the following core of mathematics and related courses:

Mathematics 50, 70 and 100 — Calculus I, II and III
Mathematics 80 — Linear Algebra
Mathematics 101 — Mathematical Reasoning
Computer Science 65 — Introduction to Computer Science I.

Qualified students may omit some of these upon consultation with a departmental adviser.

In addition, a student must take at least 21 hours of upper-division coursework in mathematics and related areas. At least six of these 21 hours must be in applied mathematics courses chosen from the following courses in mathematics and statistics: 110, 120, 121, 125, 131, 132, 150, 165; at least six hours must be in pure mathematics courses chosen from the following courses in mathematics: 150, 153, 155, 156, 157, 176, 184, 185, 187. These courses should be chosen with an adviser to ensure the requirements are satisfied. The remaining upper division hours are to be selected to meet the objectives of the student. These remaining courses may be other upper level mathematics courses (not Mathematics 140 or the mathematics tutoring course) or approved courses in computing, statistics, quantitative methods, actuarial science, econometrics or other areas approved by the adviser.

Mathematics majors should also develop competencies in one or more areas of application of mathematics such as the physical sciences, life sciences, social sciences or business.

Program of study for major in mathematics for secondary education: This major is designed to furnish students with the mathematics content necessary for secondary certification in mathematics; in order to teach secondary mathematics, students will also need to complete the secondary education major offered in the School of Education. Students must complete the following mathematics and related courses:

Mathematics 45 — Mathematics and Technology
Mathematics 50, 70 — Calculus I, II
Mathematics 54--- Introduction to Discrete Mathematics
Mathematics 80 — Linear Algebra
Mathematics 101 — Mathematical Reasoning
Mathematics 144--- Methods of Teaching Secondary School Math
Mathematics 145 — Methods of Teaching Secondary School Mathematics
Mathematics 153 — Modern Geometry
Mathematics 155 — Introduction to Abstract Algebra I
Mathematics 157 — History of Mathematics
Computer Science 65 — Introduction to Computer Science I
Statistics 71 — Statistics I or Statistics 131 — Probability and Mathematical Statistics I

The course, Mathematics Tutoring (currently under the Mathematics 195 number), is strongly recommended.

Program of study for minor in mathematics: The student must have a departmental minor adviser and complete the following mathematics and related courses: (1) Mathematics 50, 70, 80, 101, (2) two additional upper-level mathematics courses that must be approved for the program by the adviser (Mathematics 140, Cooperative Education, may not be one of these), and (3) Computer Science 65.

Program of study for minor in mathematics for secondary education: A student must have a departmental minor adviser and complete the following courses: Mathematics 50, 54, 70, 80, 101, 153, 157, Computer Science 65, and either Statistics 71 or Statistics 131. Mathematics 45 and Mathematics 145 are also recommended. This minor includes all the courses necessary to use mathematics for a second teaching field.

Organizations: Mathematics majors are encouraged to participate in Kappa Mu Epsilon, national honorary fraternity in mathematics.

Military Science

ARMY RESERVE OFFICERS' TRAINING CORPS

Military Science courses, commonly referred to as Army ROTC courses, are the only on-campus ROTC classes at Drake University and are instructed by Army Officers assigned as faculty at Drake University. The instruction is primarily leadership based and utilizes many team-building and hands-on activities. All Military Science courses can be counted toward general elective requirements and students may take up to the first two years of the courses without committing to join the Army. There are two, three, and four year scholarships available for those who qualify. Students who successfully complete the ROTC program and receive a degree from Drake University are eligible to receive a commission as an officer in the United States Army. They begin at the rank of second lieutenant and may serve on active duty or in the Army Reserve or the Army National Guard.

There are four levels of Military Science (MS) courses, referred to as MS1, MS2, MS3, and MS4. The MS levels are traditionally aligned with the freshman, sophomore, junior and senior years, respectively. The MS1 and MS2 classes are collectively called the Basic Course and can be taken by any student without committing to service in the Army, unless a scholarship is offered and accepted. The MS3 and MS4 classes are collectively called the Advanced Course and require a commitment to service in the Army. Each MS level has a fall and spring class and each class has a corresponding lab. The classes are taught separately by MS level, normally in a classroom setting, and are instructed by the ROTC faculty. All labs are held concurrently and instructed outdoors or in a gymnasium setting. The labs are based on military skills, tactics and techniques and primarily instructed by the MS3 and MS4 cadets with faculty supervision. This

provides the MS3 and MS4 cadets practical, hands-on experience in planning and executing instructional events as well as practicing their public speaking and leadership skills.

MILITARY SCIENCE COURSE STRUCTURE

BASIC COURSE (Any student)				ADVANCED COURSE (Contracted cadets only)			
MS1 FRESHMAN		MS2 SOPHOMORE		MS3 JUNIOR		MS4 SENIOR	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
MILS 011	MILS 012	MILS 012	MILS 022	MILS 101	MILS 102	MILS 111	MILS 112
- 1 Credit each - 1 Credit Lab		- 2 Credits each - 1 Credit Lab		- 3 Credits each - 1 Credit Lab		- 3 Credits each - 1 Credit Lab	

In addition to the courses listed above, cadets can take MILS 015 – Army Physical Readiness. MILS 015 is not a required class for Army ROTC cadets. It is a one credit class that is completed by attending the Army ROTC fitness sessions three times per week. Any student on campus can take this class with or without taking any other MS classes. Attending Army ROTC fitness sessions is highly recommended for anyone seriously considering requesting a contract. This class can be taken multiple times.

The Advanced Course is structured to provide the necessary preparation to qualify as a commissioned officer. Students must meet all physical and academic requisites to enter the Advanced Course to include completing or getting credit for the Basic Course. Entrance into the Advanced Course also requires a commitment to service in the Army, Army Reserve or Army National Guard. The length of service will vary. For details contact the Military Science Department.

Students may get credit for the Basic Course in several ways. If they have at least four years of college remaining they should complete it over two years as designed. With three years remaining they can take the MS1 and MS2 classes simultaneously over one year. If they have two years remaining they may complete a 28-day course called Leaders Training Course (LTC) located at Ft. Knox, KY. If the department clears you to attend LTC it can be registered for as a class as well. The class is MILS 023 and it is a 3 credit course. Veterans, National Guard soldiers and Army Reserve soldiers may also received Basic Course credit for completing basic training.

Students enrolled in the Advanced Course are required to attend a 32-day course at Ft. Lewis, WA called the Leadership Development and Assessment Course (LDAC). LDAC can be registered for as a class as well. The class is MILS 103 and it is a 6 credit course. This course is attended between the MS3/Junior and MS4/Senior years. The course is a leadership laboratory where students are assessed on their tactical, technical and leadership abilities based on what they've learned on campus.

Persons interested in military science may contact the Military Science Department located at 1153 24 Street, Des Moines, IA 50311. The phone numbers are (515) 271-3952 or (515) 294-0308 or 800-44-DRAKE, ext. 3952.

Minor in Military Studies

Description of program: A Minor in Military Studies entails the development of student's awareness of the position the military plays within the structure of a free society. Leadership studies are an emerging discipline and the concept of leadership and how it can be reciprocal will be explored. A minor in military studies will present a mentally, morally, and physical environment in order to establish a foundation in having students experience the beliefs and behaviors of strong leaders throughout history. Starting with the premise that all civilizations owe their origins to warring, a minor in military studies probes the meanings, motivations and methods underlying war in different societies over the course of more than 2,000 years. The minor in military studies at Drake University provides students with a splendid opportunity not only to understand the practices and precepts of the military more clearly, but also to provide a start point for assuming the highest responsibilities of leadership and citizenship in all walks of life.

Program of study for minor: Drake University students can receive a minor for military studies by completing 18 hours of specialized coursework in military studies. This includes 12 hours from a combination of either of the two ROTC programs, regardless of whether or not a commission in the Armed Forces is tendered, and 6 credit hours from non-ROTC courses on related military topics.

Drake is a member of Servicemembers Opportunity Colleges, a consortium of more than 1,300 institutions pledged to be reasonable in working with service members and veterans who are trying to earn degrees while pursuing demanding, transient careers. As an SOC member, Drake is committed to easing the transfer of relevant course credits, providing flexible academic residency requirements and crediting learning from appropriate military training and work experiences. SOC is sponsored by 15 national higher education associations with the military services, the National Guard Bureau and the Office of the Secretary of Defense serving as cooperating agencies.

Neuroscience

Degree options: Bachelor of Science degree with a major in neuroscience.

Description of program: Students studying neuroscience at Drake University will be exposed to an interdisciplinary environment through coursework in physical and life sciences, close interaction with faculty and the opportunity to participate in research projects. The interdisciplinary nature of neuroscience can be appealing to students in allied fields such as psychology and biology, thus making earning a double major or minor an attractive option. Moreover, it is important to note that courses that comprise the major are available to students majoring in other disciplines provided the course prerequisites are met.

There are many career paths available to students interested in neuroscience or related fields. Some are interested in attending graduate school in order to pursue a career in basic or applied research and teaching. Others may want a neuroscience background as a foundation for further training in a health care field, such as medicine, physical therapy, optometry, nursing, etc. Still others may want exposure to neuroscience topics because of an interest in professional writing (e.g., newspaper, magazine) about the field or working in a related field such as the pharmaceutical or biotechnology industry. In all cases, students should work with their academic adviser to determine what path is best for them.

Program of study for major:

The curriculum for a B.S. in neuroscience at Drake University is described below. Completion of the program requires completion of the course requirements listed below. Students will work with their adviser to make appropriate course selections when options are available, thus the precise number of credit hours for the major will vary slightly.

Required Core Courses

BIO 12, 13	General Biology
PSY 1	Introduction to Psychology
Any two from:	1) Introduction to Genetics (BIO 105)
	2) Cell Biology (BIO 165)
	3) Mammalian Physiology (BIO 129)
PSY 123	Biological Basis of Behavior
PHAR 119	Topics in Neuropharmacology
One of:	1) Sensation and Perception (PSY 122)
	2) Cognitive Psychology (PSY 125)
	3) Behavioral Endocrinology (number to be assigned)

Required Supporting Courses

MATH 20	College Algebra (Calculus preferred)
CHEM 1/3,2/4	General Chemistry
CHEM 107/109;108/110	Organic Chemistry
PHY 11	General Physics
One of:	1) Research Methods and Statistics (PSY 15)
	2) Statistics I (STAT 71)
	3) Biological Research Methods (BIO 99)

Program of study for minor:

- PSY 1
- BIO 12, 13
- PSY 15, STAT 71, or BIO 99
- PSY 123; Biological Basis of Behavior
- PSY 125 or 122; Cognitive Psychology or Sensation and Perception
- PHAR 119; Topics in Neuropharmacology
- BIO 105, 128, or 165; Genetics, Physiology, or Cell Biology

We anticipate that most students pursuing a minor will do so to complement a major in psychology or biology, thus some of these courses will be earned in that context.

Philosophy

Degree option: Bachelor of Arts degree with a major in philosophy.

Description of program: The study of philosophy attempts to develop a student's understanding of the presuppositions underlying the main areas of human inquiry, an awareness of the range of reasonable answers to the ultimate questions individuals ask themselves, and a habit of critical reflection concerning the student's own convictions about belief and conduct.

The major is designed to permit broad interdepartmental studies and interdisciplinary synthesis. It provides a desirable background for graduate study and work in human relations, law, literature, the social sciences and theology.

Program of study for major: 39 credit hours that fulfill the following requirements:

1. Philosophy 21 — Introduction to Philosophy
2. Philosophy 90 — Ethics OR
Philosophy 91 — Contemporary Ethical Problems OR
Philosophy 113 — Social Justice
3. Philosophy 51 — Logic and Critical Thinking OR
Philosophy 114 — Symbolic Logic

4. Six credit hours in Philosophic Classics to be satisfied by Philosophy 104, Ancient Period; 105, Medieval Period; 106, Modern Period; 107, Contemporary Period; or approved equivalent courses.
5. Three credit hours in an independent study project
6. Nine credit hours in philosophy electives
7. No more than 15 credit hours in the major may be in courses numbered below 100.
8. 12 credit hours in a single related field. Students must receive their academic adviser's approval of the related field.

Program of study for minor: All minors must have an adviser in the department and must successfully complete 18 credit hours that fulfill the following requirements:

1. Philosophy 90, 91 or 113
2. Philosophy 51 or 114
3. Three credit hours to be satisfied by Philosophy 104, 105, 106, 107 or an approved equivalent course.
4. Nine credit hours in philosophy electives
5. No more than nine credit hours in the minor may be in courses numbered below 100.

Physics

Degree options: Bachelor of Arts and Bachelor of Science degrees with a major in physics. Students may choose one of several options in pure and applied physics.

Description of program: The basic physics major is designed for students who are interested in a career in industry, government laboratories and applied science or in further study toward a graduate degree.

For students planning to teach junior or senior high school physics, a cooperative program with the School of Education leads to Iowa secondary certification. Students complete a program of physics and education courses and a professional semester, which includes student teaching experience.

Students planning to enter medical or dental school may complete their undergraduate major in physics. This program includes the appropriate courses in biology and chemistry needed to satisfy medical or dental school entrance requirements.

For students who have an interest outside the present fields of concentration but whose educational goals can be realized through a combination of existing courses, an individualized major may be developed. Faculty members counsel students whose interests lie in this direction. Such individualized majors could include computational physics, geophysics, environmental physics, biophysics, chemical physics or astrophysics.

Additional courses are offered in physics and physical science to familiarize the general student with the current scientific interpretations of the fundamental physical laws that govern the universe.

Program of study for major: The Bachelor of Arts degree requires a minimum of 42 credit hours in physics, and the Bachelor of Science degree requires a minimum of 50 credit hours in physics in a program to be developed by the student and the adviser and approved by the department. All programs include a common core of seven physics courses in the first two years:

First year

- Physics 1 — Introductory Physics I
- Physics 5 — Topics in Physics

Sophomore year

- Physics 2 — Introductory Physics II
- Physics 50 — Modern Physics
- Physics 59 — Advanced Laboratory I
- Physics 61 — Error Theory
- Physics 191 — Physics Seminar I

Minimum degree requirements for the B.A. and B.S. degrees also include:

- Physics 121 — Theoretical Mechanics
- Physics 122 — Introduction to Electromagnetic Theory
- Physics 133 — Electronics
- Physics 182 — Thermodynamics and Statistical Physics
- Physics 192, 193 — Physics Seminar II, III

Requirements for the B.A. include one of the following:

- Physics 149 or 159 — Advanced Laboratory II or III
- Physics 197 or 198 — Research Participation

In addition, the Bachelor of Science degree requires:

- Physics 149 or 159 — Advanced Laboratory II or III
- Physics 181 — Quantum Theory
- Physics 188 — Advanced Classical Physics, and
- one course from the following: Physics 180, 183, 184, 185, 186, 187, 189, 190, 195, 197, 198

A Senior Capstone Experience is required, which may be either an NSF-sponsored REU experience between the junior and senior years, or one of the courses Physics 197 or 198 — Research Participation taken during the senior year.

Requirements for all programs also include General Chemistry I, with laboratory and related courses in mathematics and computer science appropriate to the options chosen by the student.

Depending on the student's career goals, the academic adviser may recommend additional courses chosen from electives.

Program of study for minor: Minimum of 24 credit hours of physics courses: Physics 1, 2 and 5 and Physics 50, 59, 61, 191 and either 133 or 182. All students planning to take a minor in physics must have a minor adviser in the Department of Physics. Students should consult their advisers regarding the mathematics prerequisites for these courses.

Physics/Engineering

The Department of Physics and Astronomy administers a cooperative program in engineering. Two options are available: an informal Two-Two Plan and a formal Three-Two Dual Degree Plan. Students interested in the Dual Degree Plan must consult with the chair of the department before registration.

In the Two-Two Plan, a student spends the first two years at Drake pursuing a program of basic studies, which parallels the standard preparation for engineering study. Successful completion of the basic studies program qualifies a student for admission as a third-year student at most of the engineering colleges in the United States.

In the Three-Two Dual Degree Program, a student completes three years at Drake pursuing a program that combines preparation for engineering study with the basic requirements for a degree from Drake University. Although most students will major in physics, any major compatible with the student's intended field of study in engineering is possible, e.g. a chemistry major for

study in chemical engineering, a computer science major for study in computer engineering. Successful completion of this program qualifies a student for admission to the Seaver Institute of Technology at Washington University, St. Louis, Missouri, for a two-year professional engineering program. The first year of professional study applies toward completion of the Drake degree. Upon successful completion of the program, the student is awarded both a Bachelor of Arts or Bachelor of Science degree from Drake University, and a Bachelor of Science degree in an area of engineering from Washington University

Students are eligible for financial aid at both institutions.

The curriculum for the first two years is typically:

First Year	Credit Hours
COMPUTER SCIENCE 65 — Introduction to Computer Science I	3
MATHEMATICS 50, 70 — Analytic Geometry and Calculus I, II	8
PHYSICS 1 — Introductory Physics I	4
PHYSICS 5 – Introductory Topics in Physics	4
ELECTIVES — Social Science or Humanities	15
TOTAL	34
Second Year	Credit Hours
CHEMISTRY 1, 2 — General Chemistry I, II with labs	8
MATHEMATICS 80 — Linear Algebra	3
MATHEMATICS 100 — Analytic Geometry and Calculus III	4
PHYSICS 2 — Introductory Physics II	4
PHYSICS 50 — Modern Physics	4
PHYSICS 59 — Advanced Laboratory I	2
PHYSICS 61 — Error Theory	1
PHYSICS 191 — Physics Seminar I	1
ELECTIVES — Social Science or Humanities	6
TOTAL	32

Politics

Degree options: Bachelor of Arts degree with majors in Politics and International Relations. (For the latter, see "International Relations" elsewhere in the College of Arts and Sciences section of this catalog.)

Description of program: The Department of Politics and International Relations provides an exceptional learning environment that prepares students for meaningful personal lives, professional accomplishments, and responsible global citizenship. With the liberal-arts focus of the program, students will develop a foundation both for citizenship in a democratic society and for successful training in a career, in a graduate school or in a professional school. Majors will be prepared for entrance into state, local and federal government service, business careers, social work, journalism, teaching and politics; approximately half of Drake's Politics and International Relations majors go to law school or graduate study.

Program of study for major: Minimum of 30 credit hours of politics coursework to be distributed as follows:

Required courses (five: 15 hours):

- POLS 001 – The American Political System
- POLS 065 – Comparative Politics
- POLS 075 – World Politics
- POLS 18x – a course in political theory
- POLS 191 – Senior Seminar in Politics

Elective courses in politics: (five: 15 hours)

Related fields: 12 hours (in 100 level courses), at least 6 in one field, in courses to be chosen with the approval of the adviser from the following disciplines:

- Economics
- History
- Philosophy
- Sociology

Students are cautioned to observe the prerequisites prescribed for some advanced courses, and it is recommended that majors take a course in statistics or research methodology offered by one of the social science departments or by the statistics department.

Politics majors and minors interested in internships should examine the possibilities connected with Politics 193 and 194, Internship in Politics.

Program of study for minor: 18 credit hours of politics coursework distributed as follows:

Required courses (four: 12 hours):

- POLS 001 – The American Political System
- POLS 065 – Comparative Politics
- POLS 075 – World Politics
- POLS 18x – a course in political theory

Elective courses in politics: (two: 6 hours).

Organizations: Students with an overall G.P.A. of at least 3.00 together with a G.P.A. of at least 3.25 in a minimum of 15 credit hours in politics courses may be eligible for induction into Pi Sigma Alpha, the national political science honorary society.

Psychology

Degree options: Bachelor of Arts and Bachelor of Science degrees with a major in psychology.

Description of program: The Department of Psychology provides courses in the fundamental areas of study that comprise the science of behavior. The department recognizes outstanding undergraduate students by presenting annual achievement awards for excellence in academic performance and for significant contributions in experimental and applied psychology.

The undergraduate B.A. degree program is intended for students planning careers in areas other than psychology or related sciences. It is designed to permit the student to develop one or more specific areas of interest within the major and offers considerable flexibility to students wishing to focus their study on human or animal behavior.

A Bachelor of Arts degree in psychology can be completed as part of many pre-professional programs of study, including pre-business, pre-law and pre-social work. Students should work with their advisers to assure selection of courses most compatible with their educational and career objectives. Students also are encouraged to take courses in the arts and sciences that improve their verbal, quantitative and critical reasoning abilities.

The program of study leading to a Bachelor of Science degree with a major in psychology is intended for students who anticipate attending graduate school in psychology or related sciences. The course requirements reflect the breadth and rigor necessary to prepare for the Graduate Record Examinations and graduate study.

Students are encouraged to take courses in the arts and sciences that improve their verbal, quantitative and critical reasoning abilities.

Program of study for major, Bachelor of Arts degree: 33 hours of coursework in the Department of Psychology, which must include:

1. Psychology 1 — Introductory Psychology with lab
2. Psychology 15 — Statistics & Research Methodology
3. Students must pass Psychology 15 with a grade of "C" or better to enroll in some upper-division psychology courses and to complete the B.A. psychology major.
4. One laboratory course from among Psychology 120/121, Conditioning and Learning; 123, Biological Basis of Behavior; 125, Cognitive Psychology; or 130, Experimental Social Psychology
5. At least 12 hours of additional upper division psychology courses and eight hours of psychology electives. Laboratory courses beyond the one course required for the major may be selected to fulfill these requirements.

B.A. Areas of Application and Career Interest

Because career interests vary across students, courses should be selected in consultation with the adviser to compliment those interests. To assist students in thinking about potential courses to take within psychology, some popular areas of career interest and psychology courses recommended for those areas are listed below. This is not intended to be an exhaustive list of areas of interest or course options within those areas; it is intended as a guide to assist students in course planning.

Business and Government

PSY 30 – Social Psych
PSY 85 – Organizational Psych
PSY 130 – Exp. Social
PSY 133 – Psych. Assessment
PSY 134 – Ethnopolitical Conflict
PSY 136 – Prejudice and Discrimination
PSY 182 – Perf. Mgmt.
PSY 183 – Industrial Psych

Applied Research

PSY 111 – Advanced Statistics
PSY 130 – Exp. Social
PSY 133 – Psych. Assessment
PSY 198 – Research Seminar
A Lab Course

Human Services

PSY 42 – Child and Adolescent
PSY 60 – Principles of Behavior
PSY 76 – Abnormal
PSY 80 – Sports Psych.
PSY 81 – Human Sexuality
PSY 124 – Health Psych.
PSY 133 – Psych. Assessment
PSY 136 – Prejudice and Discrimination
PSY 147 – Adult Development and Aging
PSY 165 – Psychology of Gambling
PSY 176 – Psychopathology
PSY 177 – Theories of Psychotherapy

Education

PSY 30 – Social Psych
PSY 42 – Child and Adolescent Psych.
PSY 60 – Principles of Behavior
PSY 76 – Abnormal Psych.
PSY 80 – Sports Psych.
PSY 81 – Human Sexuality
PSY 133 – Psych. Assessment
PSY 95: Perspectives on Intelligence

Health and Medicine

PSY 28 – Drugs and Behavior
PSY 80 – Sports Psych.
PSY 81 – Human Sexuality
PSY 123 – Biological Bases of Behavior
PSY 124 — Health Psych.
PSY 125 – Cognitive Psych.

Program of study for major, Bachelor of Science degree: 34 credit hours of coursework in the Department of Psychology, which must include:

1. Psychology 1 — Introductory Psychology with lab
2. Psychology 15 — Statistics & Research Methodology
3. Students must pass Psychology 15 with a grade of "C" or better to enroll in some upper-division psychology courses and to complete the B.S. psychology major.
4. Psychology 151 — History and Systems of Psychology
5. One course including a laboratory section from among Psychology 120/121, 123, 125 or 130
6. Psychology courses providing at least 12 additional hours of upper division credit. Laboratory courses beyond the one required course may be used to complete the upper division requirements. Also, History and Systems of Psychology (Psy 151) can count toward this upper division requirement, but it cannot be used to replace the requirement of taking one course in each cluster (see below).
7. At least one course must be completed in each of the following three clusters to help assure a broad exposure to the discipline:
 - A. Psychology 23, 28, 120/121, 122, 123, 124, 125
 - B. Psychology 60, 76, 85, 133, 162, 165, 176, 177, 182, 183
 - C. Psychology 30, 42, 130, 132, 134, 136, 137, 147
8. 12 hours of natural science courses outside the Psychology Department, in astronomy, biology, chemistry, computer science, geography/geology, mathematics, physics or environmental science (a science-based course). At least one of these courses must include a laboratory. Mathematics 20, College Algebra, and Mathematics 50, Analytic Geometry and Calculus I, may be selected to complete the 12-hour requirement.

To gain experience in the conduct of research, B.S. students are encouraged to take a research seminar (Psychology 198) and/or independent study (Psychology 190, 191). Courses strongly recommended for B.S. students with grade-point averages of 3.00 and above who are interested in graduate study in psychology include Psychology 111 (Advanced Statistics) and two laboratory courses, one focusing on human behavior and the other on animal behavior.

Program of study for minor: Minimum of 20 credit hours of courses offered by the Department of Psychology, which must include Psychology 1 with lab, Psychology 15 and at least one upper-division course. A minimum grade-point average of 2.00 in psychology courses must be achieved, and courses taken on a credit/no credit basis may not be used for the minor.

A minor in psychology allows students to complement their major field of study with psychology courses and provides formal acknowledgment of the courses completed.

Organizations: Qualified students may join Drake University's chapter of Psi Chi, the national honor society in psychology.

Religion

Degree options: Bachelor of Arts degree with a major in religion.

Description of program: Courses in the Religion program are designed to serve four purposes: (1) to assist the general student in relating religion to other aspects of personality and culture; (2) to prepare a more adequate leadership in the church; (3) to prepare students for seminary and church vocations; and (4) to make available continuing education opportunities in religion for both laypersons and professionals.

Students planning to study in a theological seminary also should follow the guidelines of the American Association of Theological Schools. They call for study in foreign language, history, literature, philosophy, psychology, science and sociology. The department, in cooperation with the University, provides special counseling for pre-seminary students regardless of their major.

Students intending to pursue graduate study in a theological seminary should acquire reading skills in two foreign languages, either biblical or modern. Pre-parish-ministry candidates are well advised to study a language likely to be spoken by those whom they will be called to serve.

Program of study for major: 39 credit hours that include the following requirements (or their equivalents):

1. Religion 1, Introduction to Religious Studies, or Religion 21, Introduction to Religion
2. Philosophy/Religion 91, Contemporary Ethical Problems, or any three-hour upper division ethical topics course, such as Religion 119, Death and Dying.
3. Six credit hours to be satisfied by Religion 10, The Bible in Jewish and Christian Perspective; 51, Old Testament; and/or 52, New Testament; or by any upper division course in biblical studies, such as Religion 147 or 150
4. Three credit hours to be satisfied by Religion 151, Contemporary Religious Thought; Philosophy/Religion 125, Philosophy of Religion; or by any topics course involving in-depth study of a theological era or movement.
5. Three credit hours to be satisfied by one of the following:
Religion 104 — Development of Western Religious Ideas
Religion 111 — Eastern Asian Religions
Religion 112 — Western Asian Religions
Religion 113 — Judaism in the Time of Jesus
Religion 170 — Early Christianity
6. Three credit hours in an independent study project
7. Nine credit hours of religion electives
8. Nine hours in a single related field. Students must receive their academic adviser's approval of the related field.

No more than 15 credit hours in the major may be in courses numbered below 100.

Program of study for minor: 18 credit hours. All minors must have an adviser in the department and must successfully fulfill the following requirements (or their equivalents).

1. Religion 1 or 21
2. Philosophy/Religion 91, 109 or 119
3. Six credit hours to be satisfied by Religion 10, 51 or upper division courses in biblical studies
4. Religion 151 or Philosophy/Religion 125

5. Three credit hours in an upper division religion course

No more than 12 credit hours in the minor may be in courses numbered below 100.

Rhetoric and Communication Studies

Description of program: The Rhetoric and Communication Studies program is devoted to the study of public discourse, with particular emphasis on the role of persuasion in the constitution of civil society and democratic governance. Subjects of study range from political speeches to religious texts, from commercial advertisements to Supreme Court opinions, from classical treatises to postmodern theory. Analysis focuses on individual strategies and techniques as well as larger social and cultural patterns in the production and reception of persuasive texts. Theory and case studies are combined to address perennial concerns about the relationships between language, power, identity and community.

Goals: The primary objective of instruction and advising in the department is to help the student pursue a high-quality liberal arts education. This liberal arts ideal combines study of a broad range of subjects with training in practical reasoning and the analysis of discourse, and it should culminate in the articulate citizen. Rather than preparing students for professional work in a specific career, the department attempts to cultivate qualities of leadership that are common to many areas of professional, social, and political life. Each student's program includes study in a range of arts and sciences, focuses on specific problems of collective life, attends to questions of value and character, and develops analytical and communicative skills.

Courses in Rhetoric and Communication Studies emphasize the analysis of persuasive messages and the development of strong arguments. The student learns how to discover the sources of persuasive appeal in a wide range of settings, and how to use the available means of persuasion in order to compete, cooperate, and work creatively with others. Courses emphasize careful reading of primary texts, argumentative discussion of alternative interpretations, writing of interpretive essays and research papers and oral presentations.

Students who major in the department typically go on to careers in business or public service, or to law school or graduate school in a number of disciplines (including business, communication studies, education and other fields as well). Many of our students also complete other majors or interdisciplinary concentrations, and we encourage such programming.

Requirements: Each student program for a major or minor in the department is developed individually. The major or minor program is designed within a basic disciplinary framework that allows a range of options for addressing the student's educational goals, strengths and weaknesses in coordination with other programming.

A minimum of 30 credit hours are required for the major, and 18 hours are required for the minor.

Upper-level courses from other departments may be included in the major as they fit into the department's curricular categories, contribute to a comprehensive and cohesive program of study and advance the student's educational goals. (For example, a student interested in the relationship between religion and politics might include courses from the political science and religion/philosophy departments.) Courses from other departments should not comprise more than six of the first 30 hours of the major, and all selections must be approved by a committee of the Rhetoric and Communication Studies faculty. Students are responsible for fulfilling any prerequisites for such courses.

Students also develop a supporting program of at least 15 hours; this requirement can be met with another major, minor, or concentration. (For example, a student preparing for a career in business might include courses from the College of Business and Public Administration in

management, marketing, and business law, while a student preparing for a career in secondary education could include the courses in the School of Education taken for certification.) In every case, the complete program of study should provide a sound background in the discipline, a strong liberal arts education and the flexibility needed to complete an educational program that can prepare the student for both specific career goals and responsible leadership in a changing world.

All program decisions for the major or minor must be approved the student's academic adviser in the department.

Departmental majors and minors must take at least one course from each of the four curricular areas listed below.

Curriculum: The departmental curriculum is divided into four divisions: Theory, Criticism, Practice, and Topical Studies. These divisions and their courses are listed below.

Theory identifies foundational concepts, patterns, and problems as they have been developed in the study of effective communication from antiquity to the present. Courses in this area include:

- * Rhetoric as a Liberal Art
- * Philosophy of Dialogue and Interpersonal Communication
- * Communication and Conflict
- * Classical Rhetoric
- * Contemporary Communication and Rhetorical Theory

Criticism focuses on principles of judgment, techniques of analysis and problems of interpretation in the study of discourse, as well as the conditions shaping public discourse, the use of discourse to understand society and the nature of eloquence. Courses in this area include:

- * Rhetorical Criticism
- * Introduction to Philosophical Hermeneutics
- * The Politics of Interpretation
- * History and Criticism of American Public Address

Practice develops skills in persuasive argument and performance. Courses in this area include:

- * Public Speaking
- * Advanced Public Speaking

The department also sponsors student awards for public speaking.

Topical Studies examine specific media, discourses or communicative practices to understand how language operates in major forms of collective experience and why particular ideas or actions appear intelligible, rational or powerful in specific settings. Courses in this area include:

- * Political Communication
- * Communication and Law
- * Communication and Religion
- * Rhetorics of Race
- * Rhetoric and War
- * Aesthetics of Everyday Life
- * Photojournalism and Public Culture

All program planning is done by the student in consultation with a departmental adviser. All courses taught by departmental faculty can be counted toward a major or minor in the

department, as long as other requirements are not annulled. Courses taught outside the department by departmental faculty include courses in the First Year Seminar program, the Law, Politics and Society program, the Honors Program and Paths to Knowledge, among others.

Independent study also is an option, particularly in conjunction with senior thesis requirements in interdisciplinary programs such as the Honors Program or the program in the Critical Study of Culture.

If the capstone experience for the Drake Curriculum is completed within the major, it should be in conjunction with the senior seminars in classical or contemporary theory or with an independent study project.

Internships for credit are available when they can be arranged by the student and involve a component of academic reading and writing. Past internships have included work with political campaigns, in advertising firms and in community organizing.

Sample Curricula

The programs listed below are a few examples of how students can develop individualized programs. We have not listed samples of supporting courses, as there is even greater flexibility allowed there. The programs are listed in four-year sequences, although they can be completed in less time. As most of our majors enter the University with no declared major, or transfer from other majors, they typically are beginning the program in their second or third year of study. There are no prerequisites or required sequences of study, although it is assumed that educational benefit and student success is most likely to occur when the student follows a developmental sequence of courses.

Majors:

Major Program A:

- Rhetoric as a Liberal Art
- Public Speaking
- Philosophies of Dialogue and Interpersonal Communication
- History and Criticism of American Public Address
- The Politics of Interpretation
- Rhetorics of Race
- Communication and Law
- Rhetoric and War
- Classical Rhetoric
- Contemporary Communication and Rhetorical Theory

30 hours total

Major Program B:

- Rhetoric as a Liberal Art
- Public Speaking
- FYS: Popular Trials
- History and Criticism of American Public Address
- Law, Politics, and Society
- POLS 181: Modern Political Theory
- The Politics of Interpretation
- Rhetorics of Race
- Communication and Law
- Classical Rhetoric
- POLS 190: Seminar in Constitutional Law

33 hours total

Major Program C:

Rhetoric as a Liberal Art
Public Speaking
FYS: Love and Friendship from Plato to Buddy Movies
Introduction to Hermeneutics
REL 108: 20th Century American Religion
Communication and Religion
Rhetorics of Race
PHIL 123: Ethical Theory
REL 149: Religion of the New Testament
Classical Rhetoric
Contemporary Communication and Rhetorical Theory
33 hours total

Major Program D:

Rhetoric as a Liberal Art
Public Speaking
FYS: American Character and Society
The Politics of Interpretation
SCSS 133: Sociological Theory
Communication and Conflict
Rhetorics of Race
SCSS 172: Wealth, Discourse, and Power
The Aesthetics of Everyday Life
Classical Rhetoric
Contemporary Communication and Rhetorical Theory
33 hours total

Major Program E:

Rhetoric as a Liberal Art
Public Speaking
History of American Public Address
Rhetorical Criticism
Photojournalism and Public Culture
The Aesthetics of Everyday Life
ENG 70: Introduction to Film Study
Classical Rhetoric
Contemporary Communication and Rhetorical Theory
ENG 124: Topics in Cultural History
30 hours total

Minors:

Departmental minor programs involve only courses taught by faculty in the department. There still is considerable flexibility for individual planning, as the following samples suggest.

Minor Program A:

Rhetoric as a Liberal Art
Public Speaking
Rhetoric and War
Rhetorics of Race
The Politics of Interpretation
Classical Rhetoric
18 hours total

Minor Program B:

Rhetoric as a Liberal Art

Public Speaking
Paths to Knowledge (six credit interdisciplinary course)
The Aesthetics of Everyday Life
Photojournalism and Public Culture
18 hours total

Minor Program C:

Rhetoric as a Liberal Art
Public Speaking
Political Communication
History and Criticism of American Public Address
The Politics of Interpretation
Classical Rhetoric
Contemporary Communication and Rhetorical Theory
21 hours total

Selection and scheduling will be done to optimize coordination with the student's other areas of study (e.g., another major, concentrations in Women's Studies or other interdisciplinary programs) and with other educational opportunities such as study abroad. In accord with our commitment to the liberal arts education, we encourage students to participate in additional disciplinary, interdisciplinary or international programs.

Students or prospective students are welcome to contact the faculty at any time if they have questions regarding a degree program.

Sociology

Degree option: Bachelor of Arts degree with a major in sociology.

Description of program: The study of sociology enables students to appreciate and engage the complexities of social life. The program in sociology is designed as a central component of the curriculum in the college of arts and sciences and in the university.

As a result of taking classes in sociology, students should develop an awareness of how sociologists produce knowledge, of the nature of that knowledge and of the relevance of sociological inquiry in society. Students should develop sociological imaginations and an ability to appreciate and articulate the connection between personal biography, social structure and human history, and they should be able to bring this imagination to focus in the effort to understand local national and global communities. Students must be intellectually and personally stimulated by their classroom experiences, must be able to think critically about those experiences and about the larger social arena in which their work has relevance, and gain a sense of the moral and ethical implications of the production and application of sociological knowledge.

The sociology major prepares students for careers in contemporary society and for graduate study in sociology and in other professional fields. Additionally, the sociology major enhances student preparation for effective participation in the community and society at large.

Program of study for major: Minimum of 34 credit hours in sociology that include the following:

1. One entry-level course. SCSS 1-25.
2. Two theory-intensive courses*. Choose from SCSA 101, SCSS 70, SCSS 133, SCSS 151, SCSS 170, SCSS 174, SCSS 175, SCSS 176
3. Two methodology-intensive courses*. Choose From SCSA 156, SCSS 156, SCSS 158, SCSS 159
4. One Senior Capstone Experience* (4 credit hours). SCSS 199 - 1 credit and Senior Experience Course – 3 credits

5. An additional five elective courses (15 hours) in sociology. Up to six hours of anthropology courses may be used to satisfy this elective requirement.

*Transfer courses may not be used to fulfill the theory-intensive, methods-intensive or capstone requirements.

Anthropology courses taken to fulfill the methods- or theory-intensive requirement for the sociology major may be taken in addition to the 6-hour allowance for anthropology courses.

To graduate with a sociology major, students must earn grades of "C" or higher in each core course. Students completing the sociology major may not earn a major in the anthropology and sociology major.

Honors: Qualified students are invited to receive departmental honors, and sociology majors are eligible for membership in state, regional and national academic associations.

Program of study for minor: Minimum of 18 hours of coursework in sociology to include one entry-level course and an additional 15 hours of sociology courses. Specific courses are planned by the student in consultation with an academic adviser to complement the major and/or future career and educational goals. A maximum of six hours in anthropology courses may be part of the 18 hours required for the minor. A maximum of 9 hours of transfer credit may be applied toward the sociology minor.

Study of Culture and Society

Degree option: Bachelor of Arts degree with a major in the interdisciplinary study of culture and society (SCS).

Description of program: The Study of Culture and Society (SCS) is an interdisciplinary major focusing on the study of cultural practices, social institutions and knowledge. The major focuses on contemporary critical social and cultural theories, as well as modes of cultural research and criticism, including textual and discourse analysis, ethnography, interviewing, media critique and other practices. The orientation of the major is reflexive, and places strong emphasis on students developing a sense of themselves as knowers. Courses in the major stress the recognition of the contested and changing character of cultural categories, the relationship between knowledge and power and the influence of social location and identity on the creation of knowledge.

The major requires two core courses: SCS 110 "Culture, Knowledge, Power" and SCS 120, "Modes of Cultural Inquiry," which will introduce students to current questions, debates, theories and methodological practices in cultural research. Students will also take two courses in each of three topic areas: Cultural Difference and Diversity, Public Culture and Gender and Sexuality. Students will then specialize in one of these topic areas, taking an additional two courses in their chosen area. The major is designed to require students to gain breadth in each of these areas as well as focusing more intensively on one area in their studies.

Program of study for major: Minimum of 37 credit hours that include the following:

1 entry level course	3
SCS 110 Culture, Knowledge, Power*	3
SCS 120 Modes of Cultural Inquiry*	3
2 courses in each of three areas	18
Cultural Difference and Diversity*	(6)

Choose from SCSG 192, SCSR 114, SCSS 130, SCSS 156, SCSS 167, SCS 143, SCS 146	
Public Culture*	(6)
Choose from SCSR 144, SCSR 128, SCSR 134, HONR 144, HONR152	
Gender and Sexuality*	(6)
Choose from WS 195/HONR 151, SCSS 174, WS 90/ENG 86	
2 additional courses in one area:	6
Senior Capstone*	4
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Total	37

*Transfer courses may not be used to fulfill the core course or capstone requirements.

Entry level courses cannot also count as one of the topic area courses; other courses (non-entry-level) may count for only one area.

Students may count one lower-level course for each of the three topic areas; all others must be upper-level (100 and above).

Students may double major in Sociology and SCS; however, only one theory- and one methods-intensive course (from the sociology or anthropology/sociology majors) can count toward the SCS major, and only 9 elective credits will be allowed to count for both majors. Students who double major must complete a separate capstone for each major.

Honors: Qualified students are invited to receive departmental honors.

PROGRAM OPTIONS

In addition to the major and minor fields of study, the College of Arts and Sciences offers many programs to enhance the undergraduate educational experience. See subsequent sections of this catalog for details on each of these program options.

Teacher Education Programs

The specific requirements and descriptions of teacher education programs can be found in the School of Education section of this catalog.

Description of program: Arts and sciences students who are planning careers in teaching enroll in the College of Arts and Sciences and complete a program for teaching license in the School of Education. This enrollment applies to secondary education programs only. Elementary education is offered only in the School of Education.

Program of study for secondary education: 30-credit-hour teacher license sequence and an academic major as summarized below:

Professional education courses	32
Teaching endorsement area (minimum)	30
Arts and sciences general education requirements plus second teaching endorsement and/or electives	62-64
<hr/>	
Total	124

Accelerated M.B.A. Program

The College of Arts and Sciences and the College of Business and Public Administration offer a combined program leading to a bachelor's degree in arts and sciences and a Master's in Business Administration degree (M.B.A.). The Accelerated M.B.A. Program takes five years to complete. (Note: Students intending to pursue the Accelerated M.B.A. Program should make their plans known, as early as possible, to their faculty adviser and the director of graduate programs in the College of Business and Public Administration.)

Students interested in the program spend the first three years in arts and sciences, completing the Drake Curriculum requirements and meeting the requirements of their major field. During the third year of study, application is made to the M.B.A. program. Applicants must meet M.B.A. admission requirements.

If admitted, a student enters the M.B.A. phase of the Accelerated M.B.A. Program in the fourth year of study at Drake University. The requirements for the major must be completed by the end of the fourth year. After successful completion of the first year of the M.B.A. program, the student may petition the dean of the College of Arts and Sciences to be awarded the undergraduate degree.

Arts and Sciences/Law School 3+3 Program

The College of Arts and Sciences offers students the option of a 3+3 Joint Degree program with the Drake University Law School. Under the 3+3 option, qualified Drake University students in the College of Arts and Sciences may complete both undergraduate and J.D. degrees in six years. Because careful planning is necessary to complete the program, students interested in the program must complete all undergraduate work in at least one major field in Drake's College of Arts and Sciences and Drake general education requirements during the first three years of enrollment, and must be admitted to the Drake University Law School. Interested students should contact the College of Arts and Sciences for information about additional requirements and for procedures for application.

Independent Study

Each department in the College of Arts and Sciences, as faculty time permits, offers independent study according to the needs and interests of students. These courses, open to students with the consent of the instructor, adviser and department chair, provide an opportunity for directed or independent study and research in selected topics. They typically involve a program of reading or research in a well-defined area.

Individualized Major or Minor

Students with well-defined educational goals that lie outside the major fields listed may submit a proposal to pursue a combination of existing courses as an individualized major or minor. The formal proposal must set forth: (1) the objectives the student hopes to achieve by pursuing an individualized major or minor; (2) a list of the courses to be included in the program of study; and (3) a statement of how these courses will lead to the realization of the objectives. The proposed program of study must form an integrated whole. The major must include a minimum of 32 hours of coursework, of which 20 hours must be of the junior-senior level. The minor must include a minimum of 18 hours of coursework, of which nine must be of the junior-senior level.

The proposal is considered by a committee consisting of the associate dean, the major adviser and a second adviser from another discipline. If the proposed individualized major or minor is approved, the student would complete the major or minor program under the direction of these advisers. After the program has been accepted, any change must be approved by the committee,

which may require a program of directed study or reading or the preparation of an essay to synthesize the coursework.

Individualized majors must be planned and approved before the second semester of the student's junior year. Any exceptions to this must be approved by the associate dean, especially for transfer students.

All other requirements for a degree from the College of Arts and Sciences, such as general education requirements and number of upper level hours, must be met in every student's overall academic program.

For further information and the form to complete for this major, contact the Arts and Sciences Dean's Office.

Iowa Lakeside Lab Program

Drake University is a member of the Iowa Lakeside Lab Consortium, a small group of academic institutions with affiliation to Iowa Lakeside Lab — a biological field station in northwest Iowa. This association provides opportunities for Drake students to enroll in a variety of field biology courses, many of which are not available on the Drake campus. Lakeside offers students a unique educational experience. Courses are small (10 or less) and full-immersion (one course at a time) and are taught within a community learning environment. All courses meet all day (8 a.m. to 5 p.m.) from Monday through Friday. Weather permitting, students in all Lakeside courses normally spend at least part of each day doing fieldwork in any number of the many local natural areas. Most courses are taught at the undergraduate level and last for four weeks. There are also a variety of shorter courses and courses for teachers that typically last only one or two weeks. The summer session is divided into three terms of about five classes each. Lakeside's 140-acre campus is located on the west shore of West Okoboji Lake north of Milford, Iowa. The entire shoreline of Little Miller's Bay is Lakeside property, and the bay and adjacent uplands and wetlands are used as a natural classroom in Lakeside courses.

All courses are offered for Drake credit (LLAB courses). That means that Drake students can enroll and take courses at Lakeside Lab and receive Drake credit directly. Students will need to provide their own transportation to the Lab and pay for room and board while staying at the Lab. Room and board ranges between \$195 to \$379 per week depending on the style of housing. Lakeside courses provide wonderful learning experiences for students: "the study of nature in nature." Give it a try! For more information contact the Drake Lakeside Lab Coordinator (Thomas Rosburg in Biology) or visit the Lakeside Web site: <http://www.ag.iastate.edu/centers/lakeside/index.html>

Minors in Business Studies and Marketing

Students completing B.A. or B.S. degrees with a major in the College of Arts and Sciences may augment their program with the addition of a minor in business studies or in marketing. Students selecting the minor in business studies complete a minor curriculum of integrated courses from the College of Business and Public Administration. Those selecting the marketing minor complete the curriculum defined within that program.

INTERDISCIPLINARY CONCENTRATIONS

These multidisciplinary programs are not majors but are designed to complement and add depth to majors offered by Drake University.

Latin American Studies

The Latin American Studies Concentration is a multidisciplinary program that offers students a regional focus to complement their disciplinary focus. The concentration provides a coherent framework for the study of Latin America. The concentration is designed to prepare students for careers requiring specialized knowledge of the peoples, cultures and social systems of Latin America.

The Latin American Studies Concentration requires 18 hours of coursework, 9 hours of which must be taken at Drake. Latin American Studies concentrators must demonstrate second language competence equivalent to one year of college study. Study abroad in Latin America is strongly advised. There are two options for study abroad: 1) a semester or year abroad with an affiliated program in Latin America; and 2) the Latin American Studies two-week travel seminar during the May interim term. The concentration offers an optional three-hour Integrative Independent Study ideally undertaken in the student's senior year and serving as a capstone experience.

The distribution of courses comprising the concentration is determined by the student in consultation with his or her Latin American Studies adviser. Together, student and adviser design a multidisciplinary program with courses chosen from at least three different disciplines. Courses chosen to complete the concentration should complement the student's major as well as fulfill the goals of the Latin American Studies Program. Students are encouraged to develop a special thematic or regional interest (for example, human rights in Latin America, the U.S.-Mexico border region) and to pursue that interest through a relevant cluster of courses.

In choosing courses, major emphasis should be given to courses with a Latin American regional focus (including transfer credit from study abroad programs):

- ECON 175 — Economic Development
- ENG 164 — Latino/a Literature
- ENG 165 — Postcolonial Literature: The Américas
- HIST 125 — Colonial Latin America
- HIST 126 — Modern Latin America
- HIST 170 --- Sex & Power in Aztec Empire
- HIST 170 --- Sport & Culture in Latin America
- POLS 164 — Government and Politics in Latin America

For further information, contact the director of Latin American Studies.

Women's Studies

The Women's Studies Concentration is a multidisciplinary program that focuses on the totality of women's experiences, with attention to the social construction of gender identity and gender relations, and the intersection of gender with other categories of analysis and structure, namely, race, class and sexuality. Women's Studies programs promote the comparative study of women and women's issues from a global perspective. The concentration is not a major but is compatible with many majors.

Women's Studies concentrators choose from many disciplines to complete their concentration requirements, only 6 credits of which can be selected from the same academic discipline.

The concentration consists of 21 hours of coursework, distributed as follows:

1. WS 1/ENG 75/SCSS 75 — Introduction to Women's Studies
2. Nine hours chosen from the following core courses:
 - WS 3/FYS 1 Women's Health & Re/creation
 - WS 4/FYS 31 Space Matters: Readings in Science Fiction
 - WS 5/FYS 17 Diversity in the U.S.

WS 6/FYS 14	Masculinities in Film
WS 15/ENG 77	Women and Literature
WS 16/ENG 66	American Multicultural Literature
WS 17/SCSS 10	Gender and Culture
WS 90/ENG 86	Reading and Writing Sexuality
WS 99	Special Topics
WS 105/ENG 105	Race, Gender and Poverty
WS 111/ENG 164	Latino/a Literature
WS 112/ENG 112	Reading and Writing Autobiography
WS 113/ENG 160	Theories of Language and Discourse
WS 117/ENG 165	Postcolonial Literature
WS 126/ENG 124	Salem Witch Trials
WS 130/HIST 99	Introduction to Women's History
WS 131/HIST 139	The New Woman: 1890-1945
WS 132/HIST 156	Women in Revolutionary Europe: 1789-1848
WS 133/HIST 157	Sex and Power in Peasant Society
WS 135/ENG 135	Adolescent Literature
WS 136/ENG 136	Adolescence in American Literature
WS 140/REL 155	Liberation Theologies
WS 143/HONR 142	Speaking with Many Voices
WS 145	Special Topics
WS145/SCSA 150	Women in the Global Factory
WS 146/HONR 145	Gender and Culture in Islam
WS 150/POLS 112	Women and Politics
WS 151/REL 151	Sexuality and the Sacred
WS 152/ENG 152	Early American Women Writers
WS 153/PHIL 153	Feminist Ethics
WS 159/HIST 159	American Women's History to 1850
WS 160/PSY 137	Psychology of Gender
WS 170/SCSS 183	Gender Inequality
WS172/SCSS 137	Women, Madness and Culture
WS 173/SCSS 176	Documenting Lives
WS 174/SCSS 174	Feminist Theories of Subjectivity
WS 175/SCSA 101	Feminist Anthropology: Gender, Culture and Power
WS 176/POLS 176	Gender and World Politics
WS 177/SCSS 177	Gender and Violence
WS 181/REL 151	Women and the Hebrew Scriptures

3. Three hours of a Related Course. One course chosen from:

ENG 126	World Cinema
ENG 168	Storytelling as a Social Practice
ENG 178	Race Mixture in American Literature
PSY 095	Science Ethics and Diversity (1 credit)
REL/PHIL 91	Contemporary Ethical Problems
REL 151	Race, Religion and Civic Culture
SCSA 002	Introduction to Cultural Anthropology
SCSA 150	Postcolonial South Asia
SCSR 134	Rhetorics of Class
SCSS 130	Contemporary Chinese Society
SCSS 150	Sociology of the Family
SCSS 150	Global Citizenship
SCSS 156	Representing Race
SCSS 161	Race and Ethnicity
SCSS 167	Sociology of the Afro-American Experience
SCSS 180	Social Movements

4. Three hours of Senior Seminar: Topics in Women's Studies (seniors only). One course chosen from:

WS 195	Space Matters II
WS 195	Voices of Resistance
WS 195/ENG 180	Literary Theory: Feminism
WS 195/LAW 301	Women and the Law
WS 195/LAW 330	Sexuality and the Law
WS 195/HIST 166	Women in the Western Intellectual Tradition
WS 195/HONR 151	Science, Cyborgs and Monsters
WS 195/EDUC 198	Educational Equity and Social Justice
WS 195/EDUC 199	Feeding the Hunger Within: Global Perspectives in Spirituality and Learning

5. Three hours of Practicum/Praxis:

WS 192	Independent Study OR
WS 191	Internship

Prerequisite: Minimum nine credit hours completed in women's studies and approval of a women's studies faculty adviser.

For more information, contact the director of the Women's Studies Program.

Pre-professional Study and Combined Degree Programs

The requirements for entrance into schools of dentistry, law, medical technology, medicine, mortuary science, optometry, osteopathic medicine, physical therapy, physician's assistant, podiatry, religious education, theology, social work, veterinary medicine, chiropractic and other professional schools are not uniform. This makes the early selection of a specific professional school advisable. The student's pre-professional study program can then be correlated with the entrance requirements of that institution.

Students who achieve the objectives of a liberal education are well qualified to pursue professional study. A widely diversified program is recommended to develop competence in communication and inquiry and an awareness of human values, social institutions and the physical environment. A faculty adviser works closely with each student to develop a program fitted to the student's interests and needs.

A number of professional schools admit students who have attained senior standing and have completed general requirements for graduation and requirements in their major field of concentration to pursue a combined degree program. With faculty approval, arts and sciences students admitted to such an accredited program in dentistry, law or medicine may apply the first year of professional study toward graduation. Contact the Office of the Dean for further information on combined degree programs.

Medicine and Allied Fields

Schools of dentistry, medicine and allied fields recognize the importance of a broad education — a strong foundation in the natural sciences (biochemistry, cell and molecular biology, biology, chemistry, mathematics, physics), highly developed communication skills and a solid background in the social sciences and humanities. Most applicants for professional schools have majored in one of the sciences; however, a student may select a major from any discipline that represents a field of personal interest in which high academic achievement can be realized while at the same time completing required science courses. Such qualities as leadership, dedication and diversity of interests should be developed during a pre-professional program.

Pre-Medicine/Pre-Dentistry

Medical and dental schools designate certain required courses as prerequisites for admission, among which are eight to 20 credit hours of biology, 16 to 20 hours of chemistry, four to eight hours of mathematics and eight hours of physics. Some schools require study in rhetoric, foreign language, behavioral sciences, social sciences and others.

Students plan a pre-medical or pre-dental program in consultation with faculty advisers. The early selection of a professional school presents the opportunity to effectively plan for the completion of required courses for professional school, while at the same time developing a major in the student's choice of discipline.

Typical pre-medical and pre-dental programs are listed below. Students with majors in other disciplines should consult with faculty advisers for details of such programs.

Pre-Medical Program with a Major in Biochemistry, Cell and Molecular Biology

Two degree options: Bachelor of Arts or Bachelor of Science.

Both options consist of a minimum of 124 credit hours and must include the college-wide requirements in general education.

Pre-Medical Biochemistry, Cell and Molecular Biology leading to a Bachelor of Arts degree

First Year	Credit hours
BIOLOGY 1, 18 or 12, 13— Biological Sciences	8
CHEMISTRY 1/3-2/4 — General Chemistry	8
FIRST YEAR SEMINAR	3
GENERAL EDUCATION ELECTIVES	9
INFORMATION SYSTEMS 44	3
TOTAL	31

Second Year	Credit hours
BCMB 99 — Professional Development	3
BIOLOGY 165 — Cell Biology	4
BIOLOGY 105 — Genetics	3
CHEMISTRY 107/109-108/110 — Organic Chemistry	8
BCMB 99 — Professional Development	3
GENERAL EDUCATION ELECTIVES	9
STATISTICS	3
TOTAL	33

Third Year	Credit hours
BCMB 199 — Research	2
BIOLOGY 103 — Microbiology	5
BIOLOGY 129 — Physiology	5
BIOLOGY 150 — Proficiency Symposium	2
CHEMISTRY 130 — 133 — Biochem and Adv Biochem	8
PHYSICS 11-12 — General Physics	8
TOTAL	30

Fourth Year	Credit hours
BCMB 137 — Advanced Molecular Life Sciences Lab	3
BCMB 199 — Research	2
BCMB 195 — Seminar	1
BIOLOGY 186/187 — Molecular Biology	4
GENERAL EDUCATION ELECTIVES	6
GENERAL ELECTIVES	9

Writing	3
TOTAL	31

Pre-Medical Biochemistry, Cell and Molecular Biology Major leading to a Bachelor of Science degree

First Year	Credit hours
BIOLOGY 1, 18 or 12, 13 — Biological Sciences	8
CHEMISTRY 1/3-2/4 — General Chemistry	8
First Year Seminar	3
GENERAL EDUCATION ELECTIVES	3
Mathematics 50 — Calculus	4
Information Systems 44	3
TOTAL	29

Second Year	Credit hours
BCMB 99 — Professional Development	3
BIOLOGY 165 — Cell Biology	4
BIOLOGY 126 — Developmental Biology	4
CHEMISTRY 107/109-108/110 — Organic Chemistry	8
CHEMISTRY 81 — Quantitative Analysis	4
GENERAL EDUCATION ELECTIVES	6
Statistics	3
TOTAL	32

Third Year	Credit hours
BCMB 199 — Research	2
BIOLOGY 103 — Microbiology	5
BIOLOGY 150 — Proficiency Symposium	2
CHEMISTRY 130 – 133 — Biochem and Adv Biochem	8
PHYSICS 11-12 — General Physics	8
GENERAL EDUCATION ELECTIVES	9
TOTAL	31

Fourth Year	Credit hours
BCMB 137 — Advanced Molecular Life Sciences Lab	3
BCMB 199 — Research	2
BCMB 195 — Seminar	1
BIOLOGY 186/187 — Molecular Biology	4
BIOLOGY 105 — Genetics	3
BIOLOGY 129 — Physiology	5
CHEM 182 — Advanced Analytical	4
GENERAL EDUCATION ELECTIVES	9
TOTAL	33

Pre-Medical Program with a Major in Biology

First Year	Credit hours
BIOLOGY 12/12L and 13/13L — Biological Sciences	8
BIOLOGY 15 — Introduction to Biology	1
CHEMISTRY 1/3 and 2/4 — General Chemistry	8
MATHEMATICS 20 — College Algebra	4
Calculus, Computer Science 65 or Statistics	4
FIRST YEAR SEMINAR	3
GENERAL EDUCATION ELECTIVES	3
TOTAL	31

Second Year	
BIOLOGY 165 — Cell Biology or BIOLOGY 101/101L — Comparative Anatomy	4
BIOLOGY 126/126L — Developmental Biology or BIOLOGY 121/121L — Parasitology	4
BIOLOGY 105 — Genetics	3
CHEMISTRY 107/109 and 108/110 — Organic Chemistry	8
ETHICS	3
GENERAL EDUCATION ELECTIVES	6
GENERAL ELECTIVES	3
TOTAL	31

Third Year	
BIOLOGY 103/103L — Microbiology	5
BIOLOGY 129/129L — Physiology	5
BIOLOGY 99 — Biological Research and Statistical Methods	3
PHYSICS 11/12 — General Physics	8
GENERAL EDUCATION ELECTIVES	6
GENERAL ELECTIVES	4
TOTAL	31

Fourth Year	
BIOLOGY 106L — Genetics Lab	3
BIOLOGY 117/117L — Ecology	4
BIOLOGY 186 — Molecular Biology	3
BIOLOGY 187L — Cell/Molecular Biology Lab	2
BIOLOGY 191 — Seminar in Biology	1
BIOLOGY 192 — Seminar in Biology	1
BIOLOGY 197 — Undergraduate Research	2
BIOLOGY 199 — Capstone	3
GENERAL EDUCATION ELECTIVES	6
GENERAL ELECTIVES	6
TOTAL	31
	31

Pre-Medical Program with a Major in Chemistry

Two degree options: Bachelor of Arts or Bachelor of Science. Both options consist of a minimum of 124 credit hours and must include the college-wide requirements in general education.

Pre-Medical Chemistry Major leading to a Bachelor of Arts degree (37 or more credit hours in chemistry)

First Year Credit hours	
CHEMISTRY 1 and 3/2 and 4 — General Chemistry	8
BIOLOGY 1 and 18 — Biological Sciences	8
MATHEMATICS 50 and 70 — Calculus I, II	8
FIRST-YEAR SEMINAR	3
GENERAL EDUCATION COURSES	3
TOTAL	30

Second Year	
CHEMISTRY 81 — Quantitative Chemical Analysis	4
CHEMISTRY 107 and 109, 108 and 110 — Organic Chemistry	8
PHYSICS 1-2 or PHYSICS 11-12 — General Physics	8

GENERAL EDUCATION COURSES and/or GENERAL ELECTIVES	12
TOTAL	32

Third Year

CHEMISTRY 141 and 142 — Junior Seminar in Chemistry	1
CHEMISTRY 165 — Physical Chemistry	4
BIOCHEMISTRY or other ADVANCED CHEMISTRY ELECTIVE*	4
BIOLOGY 129 or 103 — Physiology or Microbiology and/or	5
GENERAL ELECTIVES	18
TOTAL	32

Fourth Year

CHEMISTRY 192 — Seminar in Chemistry	1
CHEMISTRY 199 — Research in Chemistry	3
ADVANCED CHEMISTRY ELECTIVES	4
BIOLOGY 103 or 129 — Microbiology or Physiology	5
GENERAL EDUCATION COURSES and/or	9
GENERAL ELECTIVES	19
TOTAL	32

*Advanced chemistry electives consist of at least eight credit hours of courses selected from the following: Chemistry 130-131, 155, 166, 180, 182 and 190. See the online course catalog for information on these courses.

Pre-Medical Chemistry Major leading to a Bachelor of Science degree

First Year	Credit hours
CHEMISTRY 1 and 3, 2 and 4 — General Chemistry	8
BIOLOGY 1 and 18 — Biological Sciences	8
MATHEMATICS 50 and 70 — Calculus I, II	8
FIRST-YEAR SEMINAR	3
GENERAL EDUCATION COURSES	3
TOTAL	30

Second Year

CHEMISTRY 81 — Quantitative Chemical Analysis	4
CHEMISTRY 107 and 108, 109 and 110 — Organic Chemistry	8
PHYSICS 1-2 or 11-12 — General Physics	8
GENERAL EDUCATION COURSES	12
TOTAL	32

Third Year

CHEMISTRY 141 and 142 — Junior Seminar in Chemistry	1
CHEMISTRY 165 and 166 — Physical Chemistry and Intermediate Physical Chemistry	8
BIOCHEMISTRY or other ADVANCED CHEMISTRY ELECTIVE*	4
BIOLOGY 129 — Physiology	5
BIOLOGY 103 — Microbiology OR	
CHEMISTRY 182 — Advanced Analytical Chemistry	4 or 5
GENERAL EDUCATION COURSES	9
TOTAL	31-32

Fourth Year	
CHEMISTRY 192 — Seminar in Chemistry	1
CHEMISTRY 199 — Research in Chemistry	3
CHEMISTRY 180 — Advanced Inorganic Chemistry	4
CHEMISTRY 182 — Chemical Instrumentation and Methods of Analysis	
OR BIOLOGY 103 — Microbiology	4 or 5
GENERAL EDUCATION COURSES and/or	
GENERAL ELECTIVES	20
TOTAL	32-33

*Advanced chemistry electives consist of at least eight credit hours of courses selected from two of the following:

- Chemistry 130-131 and 132-133
- Chemistry 155
- Chemistry 190

It is recommended that pre-medical students take Chemistry 130-131, Biochemistry. See the online course catalog for information on these courses.

Physics/Engineering

The Department of Physics and Astronomy administers a cooperative program in engineering. Two options are available: an informal Two-Two Plan and a formal Three-Two Dual Degree Plan. Students interested in the Dual Degree Plan must consult with the chair of the department before registration.

In the Two-Two Plan, a student spends the first two years at Drake pursuing a program of basic studies which parallels the standard preparation for engineering study. Successful completion of the basic studies program qualifies a student for admission as a third-year student at most of the engineering colleges in the United States.

In the Three-Two Dual Degree Program, a student completes three years at Drake pursuing a program that combines preparation for engineering study with the basic requirements for a degree from Drake University. Although most students will major in physics, any major compatible with the student's intended field of study in engineering is possible, e.g. a chemistry major for study in chemical engineering, a computer science major for study in computer engineering. Successful completion of this program qualifies a student for admission to the Seaver Institute of Technology at Washington University, St. Louis, Missouri, for a two-year professional engineering program. The first year of professional study applies toward completion of the Drake degree. Upon successful completion of the program, the student is awarded both a Bachelor of Arts or Bachelor of Science degree from Drake University, and a Bachelor of Science degree in an area of engineering from Washington University

Students are eligible for financial aid at both institutions.

The curriculum for the first two years is typically:

First Year	Credit hours
MATHEMATICS 50, 70 — Analytic Geometry and Calculus I, II	8
PHYSICS 1 — Introductory Physics I	4
PHYSICS 5 — Introductory Topics in Physics	4
COMPUTER SCIENCE 65 — Introduction to Computer Science I	3
ELECTIVES — Social Science or Humanities	15
TOTAL	34

Second Year		
MATHEMATICS 80 — Linear Algebra		3
MATHEMATICS 100 — Analytic Geometry and Calculus III		4
PHYSICS 2 — Introductory Physics II		4
PHYSICS 50 — Modern Physics		4
PHYSICS 59 — Advanced Laboratory I		2
PHYSICS 61 — Error Theory	1	
PHYSICS 191 — Physics Seminar I	1	
CHEMISTRY 1, 2 — General Chemistry I, II with labs		8
ELECTIVES — Social Science or Humanities		6
TOTAL		32

Pre-Law

To prepare for the study and practice of law, students must develop two kinds of knowledge. First, they must learn to think analytically and critically, read widely and well, and communicate effectively. Second, students must develop an understanding of social institutions and practices. In both areas of knowledge, pre-law students benefit most from a challenging curriculum comprised of rigorous courses that demand strong critical reasoning skills and a lot of reading and writing, and engages different kinds of texts, skills, concepts and theories.

While the grade-point average is important in law school admission review, even more important are indicators that the student has engaged in rigorous undergraduate study. According to one top law school, "If we were to sum up our advice in a phrase, it would be, 'Study something interesting and hard.' " Law school admission committees are more impressed by a lower GPA achieved in difficult and demanding courses than by a higher GPA in less rigorous courses.

The recommended Pre-law Curriculum provides guidance and support for students who seek such preparation at Drake University. In sum:

Select an academic major that is of interest to you. Any academic major can provide appropriate preparation for the study of law.

Enrich your education with a curriculum that emphasizes written and oral communication, critical reasoning, quantitative literacy and foreign languages.

Take courses that provide a solid educational grounding such as literature, philosophy, history, rhetoric, the fine arts and the physical sciences.

- Courses that focus on social institutions and practices include anthropology, economics, history, political science, psychology and sociology.
- Analytical and critical thinking can be enhanced by courses in many areas. Particularly helpful may be courses in science, mathematics, English, philosophy and rhetoric.
- Also important are courses that provide topical focus such as social philosophies, social critiques, political institutions, international studies and specifically law-related courses. Small, discussion-oriented courses such as First Year Seminars and Honors courses are likely to be particularly helpful.

Pre-law students may be interested in the 3 + 3 Program. (See Program Options)

Pre-law students also are encouraged to take advantage of several learning opportunities offered by the Drake Law School:

The Dwight D. Opperman Lecture in Constitutional Law brings U.S. Supreme Court justices and other nationally prominent speakers to campus each year to discuss significant constitutional issues.

The Constitutional Law Center, one of four such centers in the nation to be endowed by Congress, is a valuable resource for students, scholars and legal professionals. Drake's center

sponsors an annual national symposium that explores constitutional issues, community law forums and the Constitutional Law Speaker Series.

Intercollegiate Mock Trial teaches students about the legal process as they develop important critical thinking and public speaking skills. The Law School hosts the annual National Intercollegiate Mock Trial Tournament, which attracts teams from more than 100 colleges and universities.

Teacher Education Programs

The specific requirements and descriptions of teacher education programs can be found in the School of Education section of this catalog.

Description of program: Arts and sciences students who are planning careers in teaching enroll in the College of Arts and Sciences and complete a program for teaching license in the School of Education. This enrollment applies to secondary education programs only. Elementary education is offered only in the School of Education.

Program of study for secondary education: 30-credit-hour teacher license sequence and an academic major as summarized below:

Professional education courses	32
Teaching endorsement area (minimum)	30
Arts and sciences general education requirements plus second teaching endorsement and/or electives	62-64

Arts and Sciences Organizations

The Drake University College of Arts and Sciences has a chapter of PHI BETA KAPPA national honorary society. Other national honorary and professional societies in the College of Arts and Sciences include:

- ALPHA EPSILON DELTA, Pre-Medical Honor Society
- ALPHA KAPPA DELTA, Honorary Sociology
- BETA BETA BETA, Honorary Biology
- STUDENT AFFILIATE CHAPTER, American Chemical Society
- GENERAL FRANCIS MARION DRAKE COMPANY OF THE MILITARY SCIENCE
DEPARTMENT, Association of the United States Army
- KAPPA MU EPSILON, Honorary Mathematics
- LAMBDA ALPHA, Honor Society in Anthropology
- PHI KAPPA LAMBDA
- PI ALPHA ALPHA, Honorary Public Affairs and Administration
- PI SIGMA ALPHA, Honor Society in Political Science
- PSI CHI, Honorary Psychology
- SIGMA PI SIGMA, Physics Honor Society
- SIGMA XI, Honorary Scientific Research Society of Physics Students
- SPS, Society of Physics Students

Arts and sciences students are eligible for election to membership in Phi Kappa Phi.

Arts and Sciences Scholarships

The following scholarships and grants are available to students in the College of Arts and Sciences. Please contact the department within the College of Arts and Sciences for information on scholarships and grants.

Arts and sciences students also may be eligible for scholarships, loans and other financial aid listed in the financial aid section of this catalog. Inquiries should be addressed to the Director of Student Financial Planning, Drake University, Des Moines, Iowa 50311.

ARMY ROTC TWO- AND THREE-YEAR GENERAL SCHOLARSHIPS are awarded in all majors and to those students who meet the eligibility requirements for an Army ROTC scholarship.

EFFIE E. CAMERON SCHOLARSHIP is awarded to needy and worthy students majoring in science and mathematics at Drake University.

HOLMES COWPER SCHOLARSHIP IN ASTRONOMY. The recipient must be a junior or senior student majoring in astronomy. (Some assistance in the Observatory is required.)

CRUSINBERRY FAMILY ENDOWED SCHOLARSHIP is awarded to an undergraduate student who has demonstrated continuing interest and outstanding scholarship in the fields of physics or astronomy.

MARY E. DOWNING SCHOLARSHIP IN HISTORY is for a senior student majoring in history.

PSYCHE M. GOODEN FUND. A former student and director of student employment at Drake University, Mrs. Gooden established this fund in her will. As stated there, "I have always had a keen interest in the training of young men for the ministry and have found that young men are sometimes hesitant to undertake the extensive training required for that service for lack of funds and therefore feel that the major portion of my property should be permanently dedicated to that purpose."

PAUL S. HELMICK AND DOROTHY H. HELMICK PHYSICS SCHOLARSHIP is awarded to a student who has demonstrated continuing interest and scholarship in the field of physics. The scholarship is in recognition of the 41 years of continuous service and dedication of Paul S. and Dorothy H. Helmick to Drake University and was established by their family.

LILLIE M. HOUGHTON SCHOLARSHIP was established for the purpose of aiding student ministers in attending Drake University.

HARLAND AND OLIVE HURD MINISTERIAL SCHOLARSHIP was established by Dr. Cuthbert C. Hurd to honor his parents, Harland and Olive Hurd, both of whom have served the Disciples of Christ Church as ordained ministers. This scholarship is awarded to students studying for ministry, chaplaincy, missions, religious teaching or any special work in spreading the Christian gospel under the support of the church. Preference is given, but not limited to, members of the Disciples of Christ Church.

WINIFRED M. KELLEY ENDOWED SCHOLARSHIP FUND is intended to provide financial support to a full-time or part-time student wishing to study organ at Drake University.

CHARLES NOYES KINNEY SCHOLARSHIP IN CHEMISTRY was established by LaVerne K. Clark. Recipients must be sophomores, juniors or seniors majoring in chemistry. Students with financial need who show diligence in their endeavors and a genuine interest in the science of chemistry are eligible.

J.W. LAIRD MEMORIAL SCHOLARSHIP FUND. This scholarship is awarded to men and women preparing for the Christian ministry at Drake University.

LEWIS J. McNURLEN SCHOLARSHIP. Named in honor and memory of a Drake graduate and long-time faculty member, this scholarship is given annually by the Department for the Study of Culture and Society to a student judged to be the most outstanding junior sociology major. The scholarship recognizes distinctive academic performance and extracurricular activity while at Drake.

DR. AND MRS. B.H. MILLER SCHOLARSHIP FOR THE COLLEGE OF THE BIBLE OF DRAKE UNIVERSITY. In his last will and testament, Dr. Benjamin Hall Miller (1884-1939) made provision for a scholarship fund: "The income thereof to be given as scholarships to young men students for the ministry, as the Dean or other head, or heads, of said College of the Bible shall deem worthy and dependable."

MINISTRY-RELATED SCHOLARSHIPS. A College of the Bible (later known as the Divinity School) began with the formation of the University. In 1945, an undergraduate program was organized as the Department of Religion. In 1968, the Divinity School was discontinued, and some of its functions were taken over by the Department of Religion. Since that time, funds have been made available on a University-wide basis to students preparing for the Christian ministry. Because of Drake's church-related tradition, adequate scholarship support is available for those who are recognized by their denominations as bona fide ministers or ministerial candidates, both for undergraduate and graduate study. A few of the larger funded scholarships are listed below; others are available. Applications should be made through normal University channels.

I. FRANK NEFF SCHOLARSHIPS. Two substantial four-year scholarships are awarded annually from the bequest of Virginia Neff Chase, honoring her father, I. Frank Neff, chairman of Drake's Mathematics Department from 1900 to 1944.

KATIE NOURSE SCHOLARSHIP FUND. Katie Taylor Nourse (1909-1964) attended Drake University for two years studying to become a missionary. Her education was interrupted by the Great Depression in 1931. Following her death, her husband, Mr. Archie B. Nourse, established this memorial fund to assist students who are studying to be either missionaries or ministers. Annual awards are made to a man or woman engaged in such a program of preparation.

BETH W. PETERSEN SCHOLARSHIP AWARD is granted by the English Department to a student of writing, open to majors and non-majors, first-year through seniors. This award was established by Webster T. Petersen, a Drake alumnus, in memory of Beth Walters Petersen.

PHI BETA KAPPA SCHOLARSHIP. The \$300 scholarship is awarded to a first-year student from a Des Moines area high school.

CHARLES AND MARY RITCHEY SCHOLARSHIP is awarded every third year, if merited, to an outstanding junior history major for use during the senior year.

LEROY SHIELDS MINISTERIAL SCHOLARSHIPS are available to junior, senior or graduate students studying for ministry, chaplaincy, missions, religious teaching, or any special work in spreading the Christian gospel under the support of the church. One-half to full tuition.

RICK SKIDMORE MEMORIAL SCHOLARSHIP is awarded annually to a sophomore or junior biology major. The tuition scholarship is awarded on the basis of financial need with preference given to students unable to qualify for other scholarships. Selection is made by a biology faculty committee.

JOHN F. AND MARY M. STUBBS MINISTERIAL SCHOLARSHIP FUND was established by Marjorie A. Stubbs in memory of her parents, both graduates in religion at Drake University. It is awarded to undergraduate pre-ministerial or religious education students.

ETHEL R. TAYLOR SCHOLARSHIP is awarded to a sophomore or junior English or secondary education/ English major with an interest in a career in teaching or creative writing, open to full time students with a 3.0 grade-point average or better. The scholarship is applied by the Office of Student Financial Planning, upon recommendation from the English Department, toward the recipient's tuition and fees. Although the financial need of the student may be taken into consideration as a criteria for selection, financial need shall not be considered as the primary consideration. This award is funded by a bequest from Ethel R. Taylor.

DR. JOHN P. WAKEFIELD SCHOLARSHIP IN HUMAN ECOLOGY is awarded annually to a student who is especially interested in understanding the relationship of humans to their environment. The scholarship is open to students of any major at the sophomore level or above. The scholarship is administered jointly by the departments of Biology, Geography and Geology, and Sociology.

L.I. & G. SAYLOR WILSON SCHOLARSHIP FUND provides awards to students in the College of Arts and Sciences with a high school or Drake GPA of at least 3.00. Scholarships are awarded annually to four or more students preparing for the Christian ministry.

Arts and Sciences Awards

THE AMERICAN BIBLE SOCIETY AWARD is presented annually (when merited) to the outstanding student on the basis of academic excellence.

THE OUTSTANDING BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY FRESHMAN AWARD is awarded annually to a first year student for outstanding performance, interest and aptitude in Biochemistry, Cell and Molecular Biology.

THE BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY APPRENTICE AWARD is awarded annually to a student demonstrating interest, aptitude and outstanding first year performance in Biochemistry, Cell and Molecular Biology research.

THE BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY MENTOR AWARD is awarded annually to a senior who has served as an outstanding mentor to novice molecular life science researchers.

THE OUTSTANDING BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY SENIOR AWARD is awarded annually to a senior for achievements in Biochemistry, Cell and Molecular Biology.

THE AMERICAN CHEMICAL SOCIETY, DIVISION OF ANALYTICAL CHEMISTRY AWARD is given to an outstanding junior with an aptitude for analytical chemistry.

THE DEPARTMENTAL OUTSTANDING SENIOR AWARD is given annually to the outstanding senior majoring in chemistry.

THE APPLIED PSYCHOLOGY AWARD is presented annually to the outstanding senior psychology major whose studies have emphasized applied psychology.

THE CENTRAL IOWA MINERAL SOCIETY STUDENT AWARD IN GEOLOGY is awarded annually to a junior or senior majoring in earth science who demonstrates unusual promise as a professional earth scientist.

CLASS OF 1915 AWARD is a medal given to the arts and sciences senior judged to have made the greatest contribution to the University.

THE CRC PRESS FIRST YEAR CHEMISTRY ACHIEVEMENT AWARD is presented to the outstanding student in the general chemistry course

THE DEPARTMENTAL AWARD IN ORGANIC CHEMISTRY is given to the outstanding student in the organic chemistry course.

THE C. WALTER CLARK AWARD is given to an outstanding senior in politics.

THE DR. WILLIAM HOMER COPPOCK CHEMISTRY RESEARCH AWARD is awarded annually to an outstanding junior who shows promise of becoming a significant researcher in chemistry.

THE THOMAS DUNN ENGLISH SCHOLARSHIP AWARD is granted by the English Department to a junior major on the basis of demonstrated promise of a superior record of achievement. This award was established by former students of Professor Thomas Dunn, a longtime English faculty member, to recognize his years of service as a teacher and scholar.

THE OUTSTANDING SENIOR AWARD is granted to a senior major on the basis of academic record and related accomplishments — e.g., writing workshop tutor, contributions to literary magazine, university and/or community service, and so on. This award was established by the English Department, to be supported by its discretionary fund.

THE EXPERIMENTAL PSYCHOLOGY AWARD is presented annually to the outstanding senior psychology major whose studies have emphasized experimental psychology.

THE GOVERNOR'S CUP AWARD is presented annually by the governor to the outstanding military science student.

THE PAUL S. HELMICK AWARD is awarded annually, on the recommendation of the Physics Department, to an outstanding student in physics. This award was established by the Department of Physics and the family and friends of the late Dr. Paul S. Helmick in recognition of his 41 years of devoted service to the University as professor and head of the department.

THE GEORGE C. HUFF FRESHMAN BIOLOGY AWARD is presented to a first-year student majoring in biology in recognition of academic excellence and promise of success in biology.

THE KEACH JOHNSON AWARD is presented annually to an outstanding senior majoring in history.

KAPPA MU EPSILON MATHEMATICS AWARDS are given jointly by KME and the Department of Mathematics and Computer Science for achievement on the annual Basil E. Gillam Mathematics Examination.

MATHEMATICS AND COMPUTER SCIENCE AWARDS. Three awards annually, one in mathematics, one in mathematics education and one in computer science, are given to students selected by the faculty of the Department of Mathematics and Computer Science.

THE LEWIS J. MCNURLEN AWARD. Named in honor and memory of a Drake graduate and long-time faculty member, this award is given annually by the Department for the Study of Culture and Society to a student judged to be the most outstanding senior sociology major. The award is given for distinctive performance in both academic and extracurricular work while at Drake.

THE OUTSTANDING JUNIOR IN PSYCHOLOGY AWARD is presented annually to an outstanding junior psychology major who has shown exceptional promise for a career in psychology.

THE RELIGION DEPARTMENT AWARD is presented annually by the Department of Religion to its outstanding senior.

THE RESEARCH CONTRIBUTION SPECIAL AWARD is presented to exceptional cross-disciplinary students who have made outstanding research contributions in the field of psychology.

THE CHARLES RITCHEY AWARD is presented annually to the undergraduate student submitting the best research paper prepared for a history course during the preceding two semesters.

THE FRANCES ROGERS STUDENT-RESEARCH HONOR LECTURE is an invited seminar presentation given by a biology major for outstanding research in biology.

LUTHER SHERMAN ROSS BIOLOGY AWARD is presented annually, on the recommendation of faculty, to a student majoring in the biological sciences.

THE NORMA RUSSELL AWARD, selected by the English Department, is granted to a junior English or journalism major with an interest in poetry, open to full-time junior majors with a 3.0 grade-point average or better. Submission of writing sample is required. This award was established by ARAG/Midwest Legal Services to honor Norma Russell, a dedicated employee who loved and wrote poetry.

THE FAE M. SHAWHAN FINE FORCEPS AWARD IN ANATOMY is presented annually to a Biology major for outstanding achievement in anatomy.

THE FAE M. SHAWHAN PRE-MEDICAL AWARD is presented to a senior completing a pre-medical program at Drake University in recognition of academic excellence and promise of success in the practice of medicine.

MARY CARPENTER SHRECK CONTEST. This advocacy speaking contest is an annual event sponsored by the Rhetoric and Communication Studies Department. Participation is open to all undergraduate students. The format consists of a six-minute speech of advocacy followed by a four-minute period of cross-examination by the audience. Monetary awards are presented to the most effective advocates.

THE PAUL J. WAITE STUDENT AWARD IN ATMOSPHERIC STUDIES is given annually to a student with an outstanding record in both physical geography and basic meteorology classes.

THE MARGUARITE WILSON SCHOLARSHIP IN CHEMISTRY FUND provides support to a first- or second-year chemistry major to perform undergraduate research.

THE ANTHONY C. WESTERHOF AWARD is presented annually to the outstanding senior student in psychology.

THE ELSWORTH P. WOODS AWARD is presented spring semester to the outstanding junior student majoring in international relations, in honor of the late Elsworth P. Woods, former professor emeritus of political science and former dean of the College of Arts and Sciences. The recipient is selected by a faculty committee on the basis of demonstrated academic achievement and promise of success in a career in international affairs.

SCHOOL OF FINE ARTS

Graduation Requirements

Candidates for the Bachelor of Arts degree within the School of Fine Arts must satisfy the Drake Curriculum requirements of the College of Arts and Sciences.

Each department within the School of Fine Arts has established its own graduation requirements for professional degree candidates. A description of those requirements may be found under the individual departmental listings.

Academic Regulations

The following regulations must be observed by students enrolled in the Drake University School of Fine Arts:

1. Students are assigned faculty advisers who guide them in their program selection. However, the student alone is ultimately held responsible for the selection of the proper course in the proper sequence to fit the selected degree program.
2. A fine arts student may take a maximum of 12 hours of work on a credit-no credit basis. For details, see the Credit-No Credit Program in the General Information section of this catalog.
3. Thirty hours of credit by examination may be applied toward degrees in the School of Fine Arts. These credits may be for any University course within the fine arts degree program except for major area courses, defined as art for the art major, music for the music major, or theatre arts for the theatre arts major. The final 30 hours of any degree must be in coursework completed at Drake University.

Additional hours of credit by examination beyond 30 hours or exceptions to the above rules may be allowed on the degree program when approved by a committee composed of the department chair, the student's adviser and a faculty member representing the area of study in which the additional hours or exceptions are sought.

HENRY G. HARMON FINE ARTS CENTER

The Henry G. Harmon Fine Arts Center houses the larger part of the School of Fine Arts, including the Music Department, the Theatre Arts Department and the Department of Art and Design.

The Hall of the Performing Arts, seating 460, is a central feature of the center, where faculty and student recitals, ensemble programs, opera and theatre productions take place. The Holtkamp Concert Organ, consisting of a three-manual console controlling 3,000 pipes comprising 39 stops and 51 ranks, is utilized for recitals and teaching. Unique acoustical control and structural modifications, a three-section pit elevator and professional quality lighting and sound control booth contribute to the flexibility of the hall. The Studio Theatre is an alternate flexible space for the production of plays. The Monroe Recital Hall is a multipurpose space for rehearsals of large ensembles and recitals.

The center includes 22 major classroom areas for specialized teaching in the arts. Extensive rehearsal facilities for choral, instrumental and operatic ensembles, theory and music education classrooms, 26 applied studios and 58 practice studios comprise the music area.

The Anderson Gallery provides a generous space for curated art exhibitions as well as for regular student and faculty shows. The Carl and Edith Weeks Gallery in the lobby of the Performing Arts Hall provides additional exhibition space. A display case, intended primarily for exhibition of classroom work, is in the Schloss Lounge.

The center also includes an art history lecture room and specialized studio areas for painting, design and drawing.

A digital design laboratory, makeup room, dressing rooms and a movement room equipped with dance bars, mirrors and special flooring are used by the Theatre Arts Department.

The Dickson Media Resource Center provides individual and group listening/viewing stations utilizing cassette and reel audio tapes, VHS/Beta format video tapes, CDs and DVDs, records and slides. The center contains a music library as well as materials for art and theatre.

The center's lounge areas for students and faculty serve as areas for study, reflection and relaxation. The administrative offices of the College of Arts and Sciences and the School of Fine Arts and departmental offices also are located in the center.

EVERETT A. SHESLOW AUDITORIUM

Sheslow Auditorium in Old Main, a 1900 structure that was renovated in 1992, is an excellent performance hall for concerts and recitals presented on the Jordan Stage by the Department of Music. The Jordan Stage was made possible by Alice Jordan, a Des Moines composer whose choral works are performed in churches throughout the country, and her late husband, Frank, who served as dean of Drake's College of Fine Arts and professor of organ from 1942 to 1963. He then was professor of organ and church music until his retirement in 1972. The auditorium, which seats 774, is known for its exceptional acoustics.

Sheslow Auditorium is named after Everett A. Sheslow, a 1951 Drake alumnus, in honor of his \$2 million gift to the renovation of the historic facility and his longtime dedication to his alma mater. The auditorium also is the site of lectures, conferences and presentations of various kinds. The availability of the auditorium has made it possible for the Department of Theatre Arts to have greater access to the Hall of Performing Arts in the Harmon Fine Arts Center.

Department of Art and Design

OBJECTIVES

The mission of the Department of Art and Design has four complementary purposes for undergraduate students: to develop their ability to create art skillfully and intelligently, to instill in them a knowledge of the history of art, to educate them in various art and design professions and to offer quality elective course work for all students at Drake University and interested citizens within the surrounding community.

The Department of Art and Design in the School of Fine Arts is an accredited institutional member of the National Association of Schools of Art and Design.

FACILITIES

The Department of Art and Design has studios and classrooms in the Harmon Fine Arts Center as well as studios in the Studio Arts Hall and the Design Center in Carnegie Hall.

The Anderson Gallery is located within the Harmon Fine Arts Center. The Anderson Gallery promotes innovations in art and design and aims to enrich the cultural life of Drake University and the Des Moines community. The gallery is committed to excellence and exhibits contemporary and historical art as well as the work produced by the faculty and students of Drake's Department of Art and Design.

The Des Moines Art Center is an important resource three miles from the Drake University campus. The permanent collection, changing exhibitions, visiting artists, studios and staff are frequently utilized by Drake University students and instructors. The center's library is open to students and faculty by appointment.

SPECIAL ACTIVITIES

Visiting artists and scholars of national and international reputation are invited to campus each year to present lectures and workshops.

EXHIBITIONS

The Department of Art and Design holds exhibitions of work by students, faculty and invited artists during the school year. Among the regularly scheduled exhibitions are the Annual Juried

Student Exhibition and the Faculty Show. Exhibition space is available in the Anderson Gallery and in the Carl and Edith Weeks Gallery.

FIELD TRIPS

Field trips are organized to take advantage of major collections and exhibitions that occur during the year in such cities as Chicago and Kansas City. Individual classes make regular use of the exhibition program offered by the Des Moines Art Center.

DEGREES AND AREAS OF EMPHASIS

To meet the challenges of the many fields of the visual arts, the Department of Art and Design offers two undergraduate degree programs.

A minimum of 124 credit hours is required for all undergraduate art and design degrees. Each degree program with its areas of emphasis is summarized below.

BACHELOR OF FINE ARTS (Graphic Design, Studio Art). This professional degree is for students who wish to enter an intensive studio art or design program. Professional skills and a personal aesthetic philosophy are achieved while concentrating in graphic design or studio art. Students must possess an exceptionally strong commitment to their work.

BACHELOR OF ARTS (Art History, Graphic Design, Studio Art). This program provides students with training in art history, graphic design or studio art combined with a significant academic component based on the Drake Curriculum and allowing for concentrated course work or a second major in another academic field.

First-year Program

The first-year program is designed to give students fundamental instruction in art and includes course in art history, drawing, and two- and three-dimensional design. Students are challenged to develop essential artistic skills and to become aware of the various career opportunities in the visual arts. Exceptions include art history majors who are required to take either Art 13 or Art 14, but not both, and graphic design majors who must take Art 21 their second semester.

First Semester	Credit hours
ART 13 or 14 — 2D or 3D Design	3
ART 15 — Drawing	3
ART 75 — Survey of Western Art History I	3
First Year Seminar	3
Drake Curriculum	3
TOTAL	15

Second Semester	
ART 13 or 14 — 2D or 3D Design	3
ART 16 — Drawing	3
ART 76 — Survey of Western Art History II	3
Drake Curriculum	3
Drake Curriculum	3
TOTAL	15

*Graphic Design majors would take Art 21

Degree Requirements for Majors in Art and Design

Art History

The art history program consists of 28 credit hours of art history supplemented by basic experience in the studio arts. Familiarity with a foreign language, preferably French or German, is

recommended. The capstone experience is a major independent research paper on a subject of the student's choosing.

Bachelor of Arts Degree

	Credit hours
ART	
FIRST-YEAR PROGRAM — Art 13 or 14, 15 and 16	9
Basic Studio – Painting, Printmaking or Sculpture	3
ART HISTORY	
FIRST-YEAR PROGRAM — Art 75 and 76	6
Modern or Contemporary Art – Art 109 or 110	3
Art History Electives	15
Senior Project – Art 197 and 198	4
TOTAL ART AND ART HISTORY HOURS	40
ACADEMIC	
Drake Curriculum and electives (may be art)	
TOTAL ACADEMIC HOURS	84

Graphic Design

Bachelor of Fine Arts Degree

The B.F.A. in Graphic Design is a specialized four-year undergraduate program, which prepares students specifically in the common body of knowledge and skills required for a career as a graphic designer. It is a professional degree with the majority of credits dedicated to design or design-related course work. Faculty advising directs students to general studies that support their study in design such as mass communication, writing, psychology, sociology, anthropology and business. Beginning with the junior year, the students take part in the B.F.A. reviews that are held at the end of each semester. The senior capstone experience is a senior exhibition or a portfolio presentation.

	Credit hours
ART	
FIRST-YEAR PROGRAM – ART 13, 14, 15, 16, 75, 76	18
BASIC STUDIO – Painting, Printmaking, Sculpture	9
GRAPHIC DESIGN – Art 21, 51, 52, 115, 116, 155, 156	21
GRAPHIC DESIGN ELECTIVES	12
STUDIO MINOR (three courses above basic studio courses)	9
MODERN OR CONTEMPORARY ART – Art 109 or 110	3
ART ELECTIVES (may include art history)	6
ART HISTORY ELECTIVE	6
TOTAL ART HOURS	84
ACADEMIC	
Drake Curriculum and electives (may be art history)	
Academic concentrations can be achieved with careful planning.	
TOTAL ACADEMIC HOURS	40

Graphic Design
Bachelor of Arts Degree

The Bachelor of Arts degree program allows student to major in graphic design within the context of a liberal arts curriculum. It also allows the student considerable flexibility in developing a course of study. The capstone experience is the presentation of a graphic design portfolio.

ART	Credit hours
FIRST-YEAR PROGRAM — Art 13, 14, 15, 16, 75, 76	18
BASIC STUDIO — Painting, Printmaking or Sculpture	3
GRAPHIC DESIGN — Art 21, 51, 52, 114, 115, 116	18
GRAPHIC DESIGN ELECTIVE	3
ART HISTORY ELECTIVE	3
TOTAL ART HOURS	45
ACADEMIC	
Drake Curriculum and electives (may include art or art history)	
TOTAL ACADEMIC HOURS	79

Studio Arts
Bachelor of Fine Arts Degree

(with emphasis in drawing, painting, printmaking or sculpture)

This professional degree is for students who wish to enter an intensive studio art program. The B.F.A. degree program is recommended for those students who plan to continue their education at the graduate level. Professional skills and a personal aesthetic philosophy are achieved with an emphasis in drawing, painting, printmaking or sculpture. Beginning with the junior year, students take part in the B.F.A. reviews that are held at the end of each semester. The capstone experience is a senior exhibition.

ART	Credit hours
FIRST-YEAR PROGRAM — Art 13, 14, 15, 16, 75, 76	18
BASIC STUDIO — Painting, Printmaking, Sculpture	9
STUDIO MINOR (three courses above basic studio)	9
STUDIO EMPHASIS (beyond basic studio requirement)	15
SENIOR STUDIO REVIEW — Art 175-176	4
SENIOR STUDIO PROBLEMS — Art 183-184	6
SENIOR SEMINAR — Art 199	3
MODERN OR CONTEMPORARY ART – Art 109 or 110	3
ART HISTORY ELECTIVES	6
ART ELECTIVES (may include art history)	12
TOTAL ART HOURS	85
ACADEMIC	
Drake Curriculum and electives (may include art history) Academic concentration can be achieved with careful planning.	
TOTAL ACADEMIC HOURS	39

Studio Arts
Bachelor of Arts Degree

The Bachelor of Arts degree program allows the student to major in art within the context of a liberal arts curriculum. It also allows the student considerable flexibility in developing a course of study. The capstone experience is a project that includes both written and visual components.

ART	Credit hours
FIRST-YEAR PROGRAM — Art 13, 14, 15, 16, 75, 76	18
BASIC STUDIO — Painting, Printmaking, Sculpture	9
STUDIO AREA OF EMPHASIS (beyond Basic Studio requirements)	15
ART HISTORY ELECTIVE	3
TOTAL ART HOURS	45

ACADEMIC	
Drake Curriculum and electives (may include art or art history)	
TOTAL ACADEMIC HOURS	79

Academic Minor in Art

The minor in art is designed for those students outside the Department of Art and Design who want basic training in art history graphic design or studio art. The minor of 21 credit hours generally consists of the following courses and chosen in consultation with an art and design faculty adviser.

FOUNDATION	Credit hours
ART 13 or ART 14 – Design	3
ART 15 – Drawing	3
ART 75-76 – Survey of Art History	6

AREAS OF CONCENTRATION

Art History, Graphic Design and Studio Art (Drawing, Painting, Printmaking, Sculpture)	
Select sequence of three courses from one of the above areas	9
TOTAL	21

Department of Music

The Department of Music in the School of Fine Arts is an accredited institutional member of the National Association of Schools of Music. The requirements for entrance and for graduation, as set forth in this catalog, are in accordance with the published regulations of this association.

The Music Department offers courses leading to the following degrees:

BACHELOR OF MUSIC (with majors in applied music, or with elective studies in business)

BACHELOR OF MUSIC EDUCATION. Completion of this degree qualifies the student for a State of Iowa Teaching Certificate. Music education students achieve specialization in one of the following two areas: choral/ general music emphasis or instrumental/general music emphasis.

BACHELOR OF ARTS WITH MAJOR IN MUSIC. For students wishing to balance music training with other academic courses. The degree comprises 56 credit hours in music and 68 credit hours in the arts and sciences.

The Music Department also offers a Concentration in Jazz Studies, a Minor in Piano Pedagogy, and an Academic Minor in Music. These non-degree programs are not intended to be substitutes for any of the professional degrees offered by the department. See the listings for these programs below for required courses.

Music Department Regulations

1. Students desiring a major in music must have the approval of the Music Department prior to registration. An audition is required before consent can be granted. Applicants should contact the Music Department to arrange for an audition or to obtain permission to submit a tape, compact disc or video tape recording in lieu of an on-campus audition.

2. The applicant for admission to the Music Department is invited to enclose with the application a brief statement of musical experience and education to date along with the names and addresses of one or more music teachers who can provide information about the applicant's musical competencies.
3. Majors in all music degree programs receive one 60-minute applied lesson per week. Students not majoring or minoring in music who are recipients of music scholarships will receive one 30-minute applied lesson per week
4. Degree students are assigned to ensemble groups by the ensemble director and the department chair. Each student enrolled in the B.A. and B.M. programs is required to participate in one major ensemble (band, choir or orchestra) during each semester of full-time enrollment. Students enrolled in the B.M.E. program are required to participate in one major ensemble (band, choir or orchestra) during each semester of full-time enrollment until the eighth semester in the program. Certain scholarship conditions may require students to participate in ensembles beyond the minimum degree requirements. Because of the educational and professional needs of the student and the Music Department, a student may be required to participate in more than one ensemble during a given semester. Usually, the ensemble assignment is in the area of the student's major (or minor) applied study.
5. Private lessons missed by students may not be made up unless satisfactory arrangements are made in advance with the instructor.
6. Attendance at events listed under Music 21 (Recitals) is required of music students in all degree programs for a total of eight semesters, except for Music Education majors, for whom the requirement is seven semesters. A list of approved programs is posted at the beginning of each semester, and the attendance requirement is 15 recitals each semester, with double penalty for arrears, to be made up within the next semester. No more than one semester in arrears is allowed.
7. Students in the Bachelor of Applied Music and the Bachelor of Music Education programs must receive departmental approval before being classified as juniors or seniors within the Music Department.
8. All majors enrolled in Bachelor of Music and Bachelor of Music Education programs must demonstrate acceptable keyboard skills. Majors with little or no keyboard skills are required to enroll in the four-semester piano laboratory sequence (MUS 6, 7, 49 and 50). Other students are placed in this sequence based on a proficiency exam given during their first semester. Keyboard majors and students with strong keyboard skills who pass this keyboard proficiency exam must enroll in an applied minor instrument or voice for four semesters.

University Musical Organizations

CHORAL MUSIC

The DRAKE CHOIR is a 50-voice select ensemble that performs at least four times annually. The choir tours regionally on an annual basis and internationally every four years.

The CHAMBER CHOIR, the University's most select ensemble, consists of 20 students chosen by audition from the Drake Choir. The Chamber Choir performs on each choral concert and is the featured ensemble for the yearly madrigal dinners. The choir tours annually throughout the region and internationally every four years.

The DRAKE CHORALE is a select women's ensemble offering both on-campus performance opportunities, as well as collaborative concerts with area ensembles.

DRAKE UNIVERSITY/COMMUNITY CHORUS is a large ensemble of students, faculty, staff and singers from the Greater Des Moines area. The chorus performs at the end of each semester.

All four choruses rehearse and perform a major choral/orchestral work in each year.

OPERA

OPERA THEATRE produces fully staged operas as well as one-acts and scenes each spring. Recent productions include Mozart's "The Marriage of Figaro," Donizetti's "The Night Bell" and Copland's "The Tender Land." Auditions are held in September.

UNIVERSITY BANDS

Drake University Bands include two concert organizations (Wind Symphony and Concert Band), the Marching Band, Bulldog Brass Athletic Band and chamber wind ensembles. Membership in Drake University Bands is open to students in all colleges and schools of the University. Contact the director of bands for more information.

The WIND SYMPHONY is Drake's select wind performance group, whose members are chosen by audition. The group has released several compact discs and alternates recording and touring each year. Repertoire includes the most challenging and contemporary works for band and chamber winds.

The CONCERT BAND is selected by auditions each fall. Its repertoire includes a broad variety of compositions of university and professional caliber. The Concert Band follows a full schedule of public performances, and is open to all students.

The MARCHING BAND performs at all home football games and is an active participant in the Drake Relays and other University-sponsored events. The group is open to all students, whether or not they participate in any other band programs.

The BULLDOG BRASS ATHLETIC BAND performs at most of the men's and women's home basketball games and also attends the Missouri Valley Conference tournaments for both groups each season. The group is optional and is open to all students, whether or not they participate in any other band programs.

The DRAKE JAZZ ENSEMBLE makes numerous public appearances, including participation in regional, national and international jazz festivals. In recent years, the ensemble has appeared with Ryan Kisor, Dick Oatts and Bob Mintzer.

ORCHESTRA

THE DRAKE SYMPHONY ORCHESTRA is open to any qualified University student. The orchestra presents a regular series of concerts on campus, one of which annually features the winners of the Young Artists Auditions. Artist faculty often appear as soloists as well. In addition, the orchestra performs with various choral organizations and in productions of operas and musicals. It has received several awards from ASCAP for its performances of contemporary music and has been heard on National Public Radio in a nationwide broadcast.

CHAMBER MUSIC ENSEMBLES

(Under faculty supervision)

WIND ENSEMBLES are established each semester with various combinations of instruments.

STRING ENSEMBLES (quintets, quartets, trios) are composed of qualified students.

PERCUSSION ENSEMBLE offers students playing experience in all areas of percussion performance. Repertoire covers a wide variety of musical experience from marimba ensemble transcriptions of Bach to the latest music of Stockhausen, Cage and others.

The CHAMBER CHOIR provides additional opportunity for selected students to gain choral experience in performing literature especially suited to smaller ensembles. The choir, composed of 24 singers, tours with the Drake Choir.

Other Music Activities

COMMUNITY SCHOOL OF MUSIC

In addition to the college-level applied music program, the School of Fine Arts maintains the Community School of Music. It offers private instruction to those who wish training without University credit.

WORKSHOP PROGRAMS

Workshop programs are offered for both students and non-Drake musicians in the areas of music education, band, chamber music, piano, organ, strings, and voice. Such programs include an All-State preparation clinic, a jazz festival, an honor band festival, an invitational choral festival and professional conferences.

An endowment donated by Drake alumnus Edwin Earle Ferguson provides funds for a biennial residency by an internationally prominent musical artist.

Master classes are offered by nationally and internationally-renowned musicians throughout the year.

Recent clinicians have been Sherill Milnes (Drake Alumnus), Stanford Olson and Dawn Upshaw, voice; Frederic Chiu and Jon Nakamatsu, piano; Marina Piccinini, flute; Richard Stoltzman and Robert Spring, clarinet; Jean-Marie Londeix, saxophone; Tokyo String Quartet; The Seoul Women's Chorus; the king'singers; Libby Larsen, David Berger, Maria Schneider and David Holsinger; composers and the principal players of the Amsterdam Concertgebouw Brass.

Each summer, the Music Education Area sponsors an intensive Music Education Workshop Institute. The institute offers master teacher workshops in Kodaly and Orff-Schulwerk certification, music literacy in the choral rehearsal, vocal pedagogy in the choral rehearsal and the Iowa Comprehensive Musicianship Project.

DRAKE MIDI STUDIO

This fully equipped MIDI studio houses synthesizers and tone generators. Software is Macintosh-based. The studio is open to students who have taken MIDI courses.

DICKSON MEDIA RESOURCE CENTER

The center is a 900-square-foot facility containing individual and group listening/viewing stations as well as the fine arts library of CDs, records, tapes and slides.

COMPUTER LABORATORY

Macintosh computers and MIDI keyboards are housed in the computer laboratory.

DES MOINES SYMPHONY ORCHESTRA

In the community, the Des Moines Symphony Orchestra presents a regular subscription series of concerts each year. Students may audition for membership in this outstanding civic orchestra.

Music Charges

There is a charge of \$250 per semester for private lessons for music majors who are enrolled full-time, unless the student registers for more than three lessons per week. In this case, the extra lessons are charged at the part-time day tuition rate.

Non-majors also may enroll for private lessons for a charge of \$250 per semester. Studio lessons for non-majors are available only with permission of the instructor and department chair.

Academic Credit for Private Lessons

Credit for applied music study is allocated as follows:

1. Two to six hours of credit for one-hour weekly lessons in major areas, depending on the degree program.
2. One hour of credit per one-half hour weekly lesson in minor and elective areas.
3. One hour of credit for all non-major lessons.

Instructors for Private Music Lessons

Ashley Sandor-Sidon	cello
Clarence Padilla	clarinet
Leslie Marrs	flute
Robert Meunier	percussion
Nicholas Roth	piano
Rika Uchida	piano
James Romain	saxophone
Andrew Classen	trumpet
Lin He	violin, viola
Leanne Freeman-Miller	voice
Ann Cravero	voice

Additional teaching artists offer lessons in baritone horn, jazz drums, guitar, jazz guitar, harp, French horn, string bass, tuba, and voice.

Applied Music

Candidates for the Bachelor of Music degree with a major in applied music are prepared for full-time or part-time work as performers, as leaders of community choral or instrumental groups, as studio teachers or as teachers of applied music in private schools or colleges. The candidate must complete a minimum of 124 credit hours.

The instrumental major (piano, harpsichord, organ, strings, wind and percussion instruments) in the Bachelor of Music curriculum takes 39 to 40 hours in the applied major and minor, 31 to 34 hours in music theory and history-literature and eight hours of ensemble, plus the Drake Curriculum and free electives. (Hours vary according to each instrument; students should consult with advisers for specific number of hours.)

The vocal major in the Bachelor of Music curriculum takes 43 hours in applied music, 33 hours in music theory and history-literature, and eight hours of ensemble, plus the Drake Curriculum and free electives. Fulfillment of the foreign language requirement for the vocal major is to be approved by the student's adviser.

An acceptable senior recital of approximately one hour's duration in the student's major applied music field is required.

APPLIED INSTRUMENTAL

The program of study for students majoring in applied instrumental music is outlined below.

	Credit hours
First Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 6 — Piano Laboratory I or Applied Music Minor	1
MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
MUSIC 5 — Intro. to Music Literature	3
FIRST YEAR SEMINAR	3
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

First Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music III	3
MUSIC 52 — Materials of Music III	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music IV	3
MUSIC 54 — Materials of Music IV	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music I	3
MUSIC 114 — Studio Teaching Procedures	2
MUSIC 161 — Conducting	2
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1

MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 112 — Music History II	3
INSTRUMENTAL LITERATURE:	
MUSIC 106 — Symphonic Literature OR	
MUSIC 116 — String Literature OR	
MUSIC 130 — Directed Independent Study	2
MUSIC 181 — Chamber Ensemble	1
DRAKE CURRICULUM or FREE ELECTIVES	7
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Senior Year — First Semester	
APPLIED MUSIC MAJOR	4
DRAKE CURRICULUM or FREE ELECTIVES	10 or 11
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15 or 16

Senior Year — Second Semester	
APPLIED MUSIC MAJOR	4
DRAKE CURRICULUM or FREE ELECTIVES	9
ENSEMBLE — MUSIC 148 or 150 — Band or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
SENIOR RECITAL (Required)	Cr.
TOTAL	14

APPLIED PIANO

The program of study for the student majoring in applied piano is outlined below.

First Year — First Semester	Credit hours
APPLIED MUSIC MAJOR	4
APPLIED MUSIC MINOR	1
MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
MUSIC 5 — Intro. to Music Literature	3
FIRST YEAR SEMINAR	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

First Year — Second Semester	
APPLIED MUSIC MAJOR	4
APPLIED MUSIC MINOR	1
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	4
APPLIED MUSIC MINOR	1
MUSIC 51 — Materials of Music III	3
MUSIC 52 — Materials of Music III	1
MUSIC 109 — Piano Literature to 1800	2
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	4
APPLIED MUSIC MINOR	1
MUSIC 53 — Materials of Music IV	3
MUSIC 54 — Materials of Music IV	1
MUSIC 92 — Advanced Keyboard Skills ¹	
MUSIC 110 — Piano Literature from 1800 to the Present	2
DRAKE CURRICULUM	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 112 — History of Music I	3
MUSIC 161 — Conducting	2
DRAKE CURRICULUM	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 112 — History of Music II	3
MUSIC 113 — Piano Studio Teaching Techniques	2
DRAKE CURRICULUM	3
FREE ELECTIVE	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Senior Year — First Semester	
APPLIED MUSIC MAJOR	4
DRAKE CURRICULUM or FREE ELECTIVES	10
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15

Senior Year — Second Semester	
APPLIED MUSIC MAJOR	4
DRAKE CURRICULUM or FREE ELECTIVES	8 or 9
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.

SENIOR RECITAL (Required)	Cr.
TOTAL	13 or 14

APPLIED VOCAL

The program of study for the student majoring in applied vocal music is outlined below.

First Year — First Semester	Credit hours
APPLIED MUSIC MAJOR	4
MUSIC 6 — Piano Laboratory I or Applied Music Minor	1
MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
MUSIC 75 — Diction I	2
FIRST YEAR SEMINAR	3
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15

First Year — Second Semester	
APPLIED MUSIC MAJOR	3
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
MUSIC 5 — Intro. to Music Literature	3
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 76 — Diction II	2
DRAKE CURRICULUM	3
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music III	3
MUSIC 52 — Materials of Music III	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music IV	3
MUSIC 54 — Materials of Music IV	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music I	3
MUSIC 163 — Choral Conducting	2
MUSIC 154 --- Vocal Pedagogy	2

ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 112 — History of Music II	3
DRAKE CURRICULUM OR FREE ELECTIVES	6
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	14

Senior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 140 – Vocal Literature	2
MUSIC ELECTIVE	3
DRAKE CURRICULUM OR FREE ELECTIVES	9-10
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Senior Year — Second Semester	
APPLIED MUSIC MAJOR	4
DRAKE CURRICULUM OR FREE ELECTIVES	6 or 7
ENSEMBLE — MUSIC 149 — Choir	1
MUSIC 21 — Recitals (Required)	Cr.
SENIOR RECITAL (Required)	Cr.
TOTAL	13 or 14

Bachelor of Music with Elective Studies in Business

Candidates for the Bachelor of Music degree with elective studies in business are prepared for full-time work in the field of music business with a concentration in marketing/retailing. The candidate must complete a minimum of 132-133 credit hours: 20 hours in applied music, 30 hours in music theory/history, 27 hours in business, and eight hours in ensemble, plus the Drake Curriculum and free electives.

A professional internship is required during the junior or senior year. There are excellent opportunities in the greater Des Moines area for these internships.

No recital is required for this degree; however, with the approval of the instructor and applied faculty in the area, the student may elect to give a 25-minute senior recital.

The program of study for this degree is outlined below.

First Year — First Semester	Credit hours
APPLIED MUSIC MAJOR	2
MUSIC 6 — Piano Laboratory I or Applied Music Minor	1
MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
ECONOMICS 1 — Principles of Macroeconomics	3
FIRST YEAR SEMINAR	3
DRAKE CURRICULUM	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

First Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
MUSIC 5 — Intro. to Music Literature	3
ECONOMICS 2 — Principles of Microeconomics	3
DRAKE CURRICULUM	4
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music III	3
MUSIC 52 — Materials of Music III	1
ACCOUNTING 41 — Introduction to Accounting I	3
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music IV	3
MUSIC 54 — Materials of Music IV	1
ACCOUNTING 42 — Introduction to Accounting II	3
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Junior Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music I	3
MUSIC 161 — Instrumental Conducting OR MUSIC 163 — Choral Conducting	2
DRAKE CURRICULUM	3
STATISTICS 71 — Statistics I	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recital (Required)	Cr.
TOTAL	17

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 112 — History of Music II	3
MARKETING 101 — Marketing Principles	3
BUSINESS LAW 60	3
DRAKE CURRICULUM OR FREE ELECTIVES	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Senior Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 165 — Professional Internship in Music	3
MANAGEMENT 110 — Management Process and Behavior	3
DRAKE CURRICULUM OR FREE ELECTIVES	5 or 6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	14 or 15

Senior Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC ELECTIVE	2
FINANCE 101* — Corporate Finance	3
DRAKE CURRICULUM OR FREE ELECTIVES	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	14

*Finance 101 will substitute for Finance 95 for a minor in business from the College of Business.

Music Education

Completion of the program leading to the Bachelor of Music Education degree qualifies the candidate for a State of Iowa Teaching Certificate. Applicants who qualify for certificates in other states are recommended for those certificates by the School of Education.

Candidates for this degree must complete a total of 131-134 credit hours: 14 hours in applied music, 19 hours in music theory, 12 hours in music history-literature, 16 to 19 hours of music education and methods courses, 26 hours of professional education and seven hours of ensemble, plus the Drake Curriculum.

The student qualifies for ensemble/general classroom music teaching in the public schools upon completion of the degree requirements. The student at the same time achieves specialization in one of two areas: instrumental/general music or choral/general music. Degree programs vary depending upon student interest in the above areas.

All candidates for the Bachelor of Music Education degree must satisfy minimum keyboard proficiency requirements specified for choral or instrumental music teachers. A detailed description of these requirements is available from the Music Education Area head. The required four-semester keyboard sequence helps prepare students to take the proficiency examination.

Students choosing a keyboard instrument as the major applied area must complete four credit hours of wind, percussion or string instrument for an instrumental emphasis or four credit hours of applied voice study for a choral emphasis.

At the end of the sophomore year, students in the Bachelor of Music Education degree program are subject to a progress review by members of the music faculty. Results of the review are used to advise students concerning continuation in the Music Education Program. A similar review is required for all transfer students in the Bachelor of Music Education degree program at an appropriate time in their study.

The basic program of study for the music education major is outlined below.

Instrumental/General Classroom Emphasis

First Year — First Semester	
APPLIED MUSIC MAJOR	2

MUSIC 6 — Piano Laboratory I or Applied Music Minor	1
MUSIC 1 — Materials of Music 1	3
MUSIC 2 — Materials of Music 1	1
MUSIC 5 — Introduction To Music Literature	3
FIRST YEAR SEMINAR	3
DRAKE CURRICULUM	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

First Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 3 — Materials of Music 1	3
MUSIC 4 — Materials of Music 1	1
DRAKE CURRICULUM	9
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music 1	3
MUSIC 52 — Materials of Music 1	1
Music 62 — Voice Methods and Materials	1
INSTRUMENTAL METHODS*	1
DRAKE CURRICULUM	4
EDUC 103 — Foundations	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music 1	3
MUSIC 54 — Materials of Music 1	1
MUSIC 81 — World Music	3
DRAKE CURRICULUM	6-7
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Junior Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music 1	3
MUSIC 146 — Techniques in Jazz Performance	2
INSTRUMENTAL METHODS*	1
MUSIC 156 — Elementary Vocal/General/Music Education	3
EDUC 106 — Human Development and Learning	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 112 — History of Music II	3
INSTRUMENTAL METHODS*	2
MUSIC 159 — Instrumental Performance In the Junior and Senior High School	3
DRAKE CURRICULUM	3
SPED 120 — Introduction to Exceptional Children And Adults	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

By the completion of the junior year, music education students must have completed EDUC 103, 106, and SPED 120. At that time they must apply for entrance into the Teacher Education Program.

Senior Year — First Semester	
APPLIED MUSIC MAJOR	2
*INSTRUMENTAL METHODS	2
MUSIC 134 — Marching Band Technique	2
MUSIC 161 — Instrumental Conducting	2
MUSIC 162 — Planning and Assessment in Music Education	1
DRAKE CURRICULUM	3
EDUC 164 — PERSP RACE, ETHN, GNDR	3
EDUC 142 — Secondary Reading & Interdisciplinary Curriculum	2
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Senior Year — Second Semester	
EDUC 166 — Student Teaching: Elementary	5
EDUC 167 — Student Teaching Seminar	1
EDUC 168 — Student Teaching: Secondary	6
TOTAL	12

***INSTRUMENTAL METHODS COURSES:** These are methods and materials courses for instrumental/general music education majors. The goal of these courses is to introduce instrumental music education majors to the instruments and the appropriate pedagogy necessary for successful teaching. Five or six are to be selected from the following options:

- Music 61 String Methods and Materials
- Music 65 High Brass Methods and Materials
- Music 66 Low Brass Methods and Materials
- Music 67 Single Reed and Flute Methods and Materials
- Music 68 Double Reed Methods and Materials
- Music 71 Percussion Methods and Materials

Choral/General Classroom Emphasis

First Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 6 — Piano Laboratory I or Applied Music Minor	1
MUSIC 1 — Materials of Music 1	3
MUSIC 2 — Materials of Music 1	1
MUSIC 5 — Introduction To Music Literature	3

MUSIC 75 — Diction for Singers I	2
FIRST YEAR SEMINAR	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

First Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 3 — Materials of Music 1	3
MUSIC 4 — Materials of Music 1	1
MUSIC 76 — Diction for Singers II	2
MUSIC 81 — World Music	3
DRAKE CURRICULUM	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music 1	3
MUSIC 52 — Materials of Music 1	1
DRAKE CURRICULUM	10
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music 1	3
MUSIC 54 — Materials of Music 1	1
EDUC 103 Foundations in Education	3
DRAKE CURRICULUM	6
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Junior Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music 1	3
MUSIC 156 — Elementary Vocal/General Music Education	3
MUSIC 163 — Choral Conducting	2
EDUC 106 — Human Development and Learning	3
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	2
MUSIC 112 — History of Music II	3
MUSIC 158 — Secondary Vocal/General Music Education	3
MUSIC 166 — Advanced Choral Conducting	2
SPED 120 -Introduction to Exceptional Children And Adults	3

DRAKE CURRICULUM	2
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
FREE ELECTIVE	2
TOTAL	18

By the completion of the junior year, music education students must have completed EDUC 103, 106, and SPED 120. At that time they must apply for entrance into the Teacher Education Program.

Senior Year — First Semester	
APPLIED MUSIC MAJOR	2
MUSIC 154 — Vocal Pedagogy	2
MUSIC 162 — Planning and Assessment in Music Education	1
DRAKE CURRICULUM	6 – 7
EDUC 164 — PERSP RACE, ETHN, GNDR	
EDUC 142 — Secondary Reading & Interdisciplinary Curriculum	2
ENSEMBLE — Music 148, 149 or 150 Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17 or 18

Senior Year — Second Semester	
EDUC 166 — Student Teaching: Elementary	5
EDUC 167 — Student Teaching Seminar	1
EDUC 168 — Student Teaching: Secondary	6
TOTAL	12

Bachelor of Arts Degree, Music Major

Candidates for the Bachelor of Arts degree (Music) are prepared for graduate studies in music (particularly in musicology, music theory, ethnomusicology, or music therapy) or interdisciplinary fields that emphasize musical knowledge or related skills (such as music criticism or library science). This degree is particularly well-suited for students wishing to pursue a double major in music and another field, for those interested in pursuing academic research in music or for those looking for a wide-ranging liberal arts curriculum that emphasizes studies in music. The candidate must complete a minimum of 124 credit hours: 56 in music and 68 in the arts and sciences. The completion of a senior thesis on a topic in music of the candidate's choice is required during the senior year.

The Bachelor of Arts degree in Music is not intended to be a substitute for any of the professional degrees offered by the Department of Music.

See the course description section in the back of this catalog for information on courses listed below.

REQUIRED COURSES	Credit hours
APPLIED MUSIC	8
MUSIC 148, 149, or 150	8
MUSIC 1, 2, 3, 4	8
MUSIC 5	3
MUSIC 81	3
MUSIC 51, 52, 53, 54	8
MUSIC 107	3
MUSIC 111, 112	6
MUSIC LITERATURE/MUSIC THEORY ELECTIVES	6
MUSIC 167 – Junior Research Seminar	1

MUSIC 168 – Senior Thesis	2
TOTAL	56

1. An audition is required in the applied area.
2. The required two years of study in applied music must be in the same instrument/voice.
3. Eight semesters of Music 21, Recitals, are required.
4. Sixty-eight credit hours are to be taken in courses outside of music.

DRAKE CURRICULUM REQUIREMENTS: See the description of the Drake Curriculum in this catalog. An Artistic Experience course outside of music is required.

Minor in Music

The minor in music is intended for students with musical skills who do not wish to pursue careers in music. This program does not satisfy the requirement for certification in a minor teaching area. The minimum requirement for the minor is 24 credit hours. Music history/ literature and music electives must be chosen in consultation with a designated music faculty adviser. An audition is required in the applied music area.

REQUIRED COURSES	Credit hours
APPLIED MUSIC (four semesters)	4
MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
MUSIC 5 — Intro. to Music Literature	3
MUSIC HISTORY/LITERATURE —	
MUSIC 10, 73, 78, 81, 95, 96, 106, 109, 110, 111, 112, 120, 122, 124 or 140	3-4
MUSIC ELECTIVES (Any music course for which the student is qualified. No more than two ensemble or six additional applied music hours apply toward the minor requirement.)	5-6
TOTAL	23-24

Minor in Piano Pedagogy

This program is intended to be a supplemental area of study for the piano performance major with an interest in acquiring basic training in piano pedagogy. This program is not intended to be a substitute for any of the professional degrees offered by the Department of Music and does not satisfy the requirement for certification in a minor teaching area.

See the course description section in the back of this catalog for information on courses listed below.

REQUIRED COURSES	Credit hours
MUS 113 – Piano Studio Teaching Techniques and Materials	3
MUS 117 – Literature for Teaching Piano	3
MUS 135 – Studio Teaching of Piano	4
EDUC 103 – Foundations in Education	3
EDUC105/EDUC 106 – Human Development	3
TOTAL	16

Concentration in Jazz Studies

The Concentration in Jazz Studies is intended to train students to have marketable skills for working as professional jazz and studio musicians. The Concentration in Jazz Studies is not intended to be a substitute for any of the professional degrees offered by the Department of Music.

Students may receive the Concentration in Jazz Studies with any major degree program offered through the University.

See the course description section in the back of this catalog for information on courses listed below.

REQUIRED COURSES	Credit hours
MUSIC 10 — Jazz History	2
MUSIC 12 — Jazz Theory and Keyboard	2
MUSIC 55 — Jazz Improvisation I	2
MUSIC 56 — Jazz Improvisation II	2
MUSIC 133 — Jazz Arranging and Composition	2
MUSIC 144 — Studio Recording Techniques	2
MUSIC 145 — Jazz Ensemble (2 semesters)	2
MUSIC 181 — Chamber Ensemble (Jazz Combo) (2 semesters)	2
*Applied Jazz (2 semesters). Prerequisites: Jazz Improvisation II or permission of instructor	2
TOTAL	18

*Applied Jazz courses are selected from the following, each worth one credit hour:

- MUSIC 183 — Jazz Piano
- MUSIC 184 — Jazz Bass
- MUSIC 196 — Jazz Guitar
- MUSIC 197 — Jazz Drums
- MUSIC 198 — Jazz Wind Instruments

Church Music

Candidates for the Bachelor of Music degree with a major in church music are prepared for full-time or part-time work as directors of church music, ministers of music, or college teachers in this field. The course of study is open to students whose major interest in applied music falls into the areas of organ or voice. The curriculum is designed to acquaint the student with a broad spectrum of worship traditions.

The candidate must complete a minimum of 124 credit hours, including courses in history of hymnody, chant-liturgics, church music literature and choral conducting, ensembles and the Drake Curriculum. Other courses are tailored to the specific needs of the organ or vocal applied areas. One course in religion and one course in philosophy also are required.

Organists are required to give a senior recital of approximately one hour's duration. Singers may either present a full recital or conduct an equivalent amount of choral music in public performances.

Students may earn a Bachelor of Music Education degree or a Bachelor of Music degree with elective studies in business, in addition to the Bachelor of Music in church music, by pursuing a consolidated curriculum. This program usually requires a minimum of four academic years with some summer school study.

Students in the church music program have opportunities for internship experiences through part-time positions as organists and/or directors in greater Des Moines area churches.

The program of study for this degree is outlined below.

First Year — First Semester	Credit hours
APPLIED MUSIC MAJOR	4
MUSIC 6 — Piano Laboratory I or Applied Music Minor	1

MUSIC 1 — Materials of Music I	3
MUSIC 2 — Materials of Music I	1
MUSIC 5 — Intro. to Music Literature	3
FIRST YEAR SEMINAR	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

First Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 7 — Piano Laboratory II or Applied Music Minor	1
MUSIC 3 — Materials of Music II	3
MUSIC 4 — Materials of Music II	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Sophomore Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 49 — Piano Laboratory III or Applied Music Minor	1
MUSIC 51 — Materials of Music III	3
MUSIC 52 — Materials of Music III	1
MUSIC 129 — Practicum in Church Music	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	17

Sophomore Year — Second Semester	
APPLIED MUSIC MAJOR 4	
MUSIC 50 — Piano Laboratory IV or Applied Music Minor	1
MUSIC 53 — Materials of Music IV	3
MUSIC 54 — Materials of Music IV	1
MUSIC 121 — Conducting from the Console	1
MUSIC 163 — Choral Conducting	2
DRAKE CURRICULUM	3
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	16

Junior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 107 — Analysis of Post-Tonal Music	3
MUSIC 111 — History of Music I	3
MUSIC 127 — Service Playing	1
DRAKE CURRICULUM	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	18

Junior Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 112 — History of Music II	3
MUSIC 125 — Chant-Liturgics	2
MUSIC 126 — Organ Improvisation	1

DRAKE CURRICULUM	4
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15

Senior Year — First Semester	
APPLIED MUSIC MAJOR	4
MUSIC 120 — History of Hymnody	2
DRAKE CURRICULUM OR FREE ELECTIVES	8 or 9
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
TOTAL	15 or 16

Senior Year — Second Semester	
APPLIED MUSIC MAJOR	4
MUSIC 122 — Church Music Literature	2
DRAKE CURRICULUM OR FREE ELECTIVES	6
ENSEMBLE — MUSIC 148, 149 or 150 — Band, Choir or Orchestra	1
MUSIC 21 — Recitals (Required)	Cr.
SENIOR RECITAL (Required)	Cr.
TOTAL	13

Certification in Church Music

The Certification in Church Music is not intended to be a substitute for any of the professional degrees offered by the Department of Music.

REQUIRED COURSES	Credit hours
APPLIED MUSIC (MUS 172 — Organ OR MUS 170 — Voice)	8
MUSIC 121 — Conducting from the Console	1
MUSIC 122 — Church Music Literature	2
MUSIC 129 — Practicum in Church Music	1
MUSIC 125 — Chant and Liturgics	2
MUSIC 120 — History of Hymnody	2
MUSIC 126 — Organ Improvisation	1
MUSIC 127 — Service Playing	1
One course in religion	3
TOTAL	21

Department of Theatre Arts

A student enrolled in the Department of Theatre Arts may earn the Bachelor of Fine Arts or the Bachelor of Arts degree by following one of the basic programs:

BACHELOR OF FINE ARTS IN THEATRE

BACHELOR OF FINE ARTS IN MUSICAL THEATRE

BACHELOR OF FINE ARTS IN THEATRE WITH A TEACHING CERTIFICATE

BACHELOR OF ARTS IN THEATRE

The degrees Bachelor of Fine Arts and Bachelor of Arts require 124 credit hours.

The Bachelor of Fine Arts in theatre arts curriculum requires a minimum of 65 credit hours in theatre arts. A maximum of 76 hours is accepted toward the degree. The curriculum is arranged so that a student can emphasize one of the following areas: acting, directing, or technical theatre and design.

The Bachelor of Fine Arts in musical theatre curriculum requires 52 credit hours in theatre arts and 25 credit hours in music.

The Bachelor of Arts in theatre arts curriculum requires completion of the general education curriculum of the College of Arts and Sciences, a minimum of 42 credit hours in theatre arts, and 18 to 32 hours in a second academic field.

The Bachelor of Fine Arts in theatre with a teaching certificate program requires 145 credit hours. Both degree programs include certification to teach speech and English as well as theatre.

Each program includes basic courses required by the school of all students for graduation as well as those required for the particular program selected within the department. The curricula of all degree programs provide a flexibility that allows the student to emphasize areas of interest within each degree program. In addition, a varying number of elective subjects may be taken in other subject areas and other colleges of the University. This flexible framework allows for a development of needs, interests and abilities.

Part of this flexibility is the possibility of theatre majors accumulating a strong area of secondary emphasis. These include programs in business and journalism.

The degree programs in theatre are supported by various productions staged in the Hall of Performing Arts and in the Studio Theatre, both in the Harmon Fine Arts Center. Additionally, a number of student-produced plays are staged in an experimental performance space.

THE UNIVERSITY THEATRE

Recent productions of the University Theatre have included such works as Tennessee Williams' "A Streetcar Named Desire;" Peter Shaffer's "Equus;" Shakespeare's "Hamlet" and "Romeo and Juliet;" and A.R. Gurney's "The Dining Room" and "Sylvia." Musical productions of recent years include Kurt Weill's "The Three Penny Opera;" Stephen Sondheim's "Into the Woods" and "Company" and "Cabaret."

Drake was the first university in the United States to produce a repertory bill of original plays as a part of the Eugene O'Neill Foundation's Second Step program for playwrights. The department still has a close tie with the O'Neill Center and sends students to the center each semester for intensive training.

Original productions of short and full-length plays by both faculty and students also are presented. These original plays and other productions have been entered in the American College Theatre Festival when possible.

Theatre Arts

General Education Requirements

Bachelor of Arts: Theatre arts majors pursuing the Bachelor of Arts degree must complete the general education requirements of the College of Arts and Sciences, described elsewhere in this catalog.

Theatre Arts Requirements

The following courses are required of all students pursuing degrees in the Department of Theatre Arts with a few variations, depending on the degree chosen. Additional requirements for each degree program are available in the Theatre Arts Office.

Credit hours	
THEATRE ARTS 3 — Acting I	3
THEATRE ARTS 5 — Readings in Theatre	2
THEATRE ARTS 14 — Movement I	2
THEATRE ARTS 20 — Voice I	1
THEATRE ARTS 30 — Stagecraft I (including lab)	4
THEATRE ARTS 31 — Costuming (including lab)	4
THEATRE ARTS 32 — Makeup	2
THEATRE ARTS 103 — Directing I	3
THEATRE ARTS 120 — Theatre History I	3
THEATRE ARTS 121 — Theatre History II	3
THEATRE ARTS 124 — Tech Practicum (scene or costume)	1
THEATRE ARTS 160 — Stage Management	3
THEATRE ARTS 190 — Senior Capstone Experience	1
TOTAL	32

Theatre Arts with a Teaching Certificate

This curriculum meets the requirements for the Secondary Teaching Certificate. A teaching endorsement in theatre arts, English and speech communication may be obtained by coupling the English minor (24 hours) and a speech communication emphasis (12 hours) to the 54 hours in theatre arts. For a full explanation of the programs, contact the chair of the Theatre Arts Department.

Bachelor of Fine Arts in Musical Theatre

Listed below is a sample schedule of just one of the four areas of concentration for a Bachelor of Fine Arts in Theatre. Students pursuing degrees with an acting, directing or theatre design emphasis will have somewhat different requirements. For more information, please contact the Department of Theatre Arts.

The Bachelor of Fine Arts degree in musical theatre requires 56 credit hours in theatre arts, 15 hours in music, and the Drake Curriculum.

First Year — First Semester		Credit hours
THEATRE ARTS 3 — Acting I		3
THEATRE ARTS 14 — Movement I		2
THEATRE ARTS 20 — Voice I		2
THEATRE ARTS 30 — Stagecraft I or		
THEATRE ARTS 31 — Costuming		4
FIRST YEAR SEMINAR		3
MUSIC 11 — Fundamentals of Music		3
TOTAL		17

First Year — Second Semester		
THEATRE ARTS 4 — Acting II		3
THEATRE ARTS 15 — Movement II		2
THEATRE ARTS 30 — Stagecraft II or		
THEATRE ARTS 31 — Costuming		4
DRAKE CURRICULUM REQUIREMENT		6
MUSIC 171 — Voice		1
TOTAL		16

Sophomore Year — First Semester	
THEATRE ARTS 55 — Acting III	3
One of THEATRE ARTS 57-60 — Dance or the Theatre	3
THEATRE ARTS 32 — Makeup	3
MUSIC 171 — Voice	1
MUSIC 148-150 — Ensembles	1
MUS 6 or MUS 49 — Piano 1	
DRAKE CURRICULUM REQUIREMENT	3
TOTAL	15

Sophomore Year — Second Semester	
One of THEATRE ARTS 57-60 — Dance for the Theatre	3
THEATRE ARTS 131-138 — Problems in Acting	3
MUSIC 171 — Voice	1
MUSIC 148-150 — Ensembles	1
MUS 7 or MUS 50 — Piano	1
DRAKE CURRICULUM REQUIREMENT	7
TOTAL	16

Junior Year — First Semester	
THEATRE ARTS 5 — Readings in Theatre	3
THEATRE ARTS 103 — Directing	3
THEATRE ARTS 120 — Theatre History I	3
THEATRE ARTS 131-138 — Problems in Acting	2
MUSIC 148-150 — Ensembles	1
MUSIC 171 — Voice	1
DRAKE CURRICULUM REQUIREMENT	3
TOTAL	16

Junior Year — Second Semester	
THEATRE ARTS 121 — Theatre History II	3
THEATRE ARTS ELECTIVE	2
MUSIC 171 — Voice	1
ENGLISH LITERATURE	3
DRAKE CURRICULUM REQUIREMENT	6
TOTAL	15

Senior Year — First Semester	
THEATRE ARTS 17 — Choreography	3
THEATRE ARTS 160 — Stage Management	3
MUSIC 148-150 — Ensembles	1
MUSIC 171 — Voice	1
DRAKE CURRICULUM REQUIREMENT	6
TOTAL	14

Senior Year — Second Semester	
THEATRE ARTS 123 — American Musical	3
DRAKE CURRICULUM REQUIREMENT	6
SENIOR CAPSTONE EXPERIENCE	1
ENGLISH LITERATURE	3
TOTAL	13

Bachelor of Arts in Theatre Arts

The Bachelor of Arts degree in theatre arts requires a total of 124 credit hours, including a minimum of 42 credit hours in theatre arts, 18 hours in a second academic field and a minimum of 42 credit hours taken outside the School of Fine Arts.

	Credit hours
First Year — First Semester	
THEATRE ARTS 3 — Acting I	3
THEATRE ARTS 14 — Movement I	2
THEATRE ARTS 20 — Voice I	2
THEATRE ARTS 30 — Stagecraft I or THEATRE ARTS 31 — Costuming	4
FIRST YEAR SEMINAR	3
DRAKE CURRICULUM REQUIREMENT	3
TOTAL	17

First Year — Second Semester	
THEATRE ARTS 30 — Stagecraft I or THEATRE ARTS 31 — Costuming	4
DRAKE CURRICULUM REQUIREMENT	6
THEATRE ARTS ELECTIVES	3
MINOR REQUIREMENT	3
TOTAL	16

Sophomore Year — First Semester	
THEATRE ARTS 5 — Readings in Theatre	3
THEATRE ARTS 120 — Theatre History I	3
DRAKE CURRICULUM REQUIREMENT	6
MINOR REQUIREMENT	3
TOTAL	15

Sophomore Year — Second Semester	
THEATRE ARTS 32 — Makeup	3
THEATRE ARTS 121 — Theatre History II	3
DRAKE CURRICULUM REQUIREMENT	6
MINOR REQUIREMENT	5
TOTAL	17

Junior Year — First Semester	
THEATRE ARTS 160 — Stage Management	3
THEATRE ARTS 103 — Directing	3
THEATRE ARTS 124 — Technical Practicum	1
DRAKE CURRICULUM REQUIREMENT	6
MINOR REQUIREMENT	3
TOTAL	16

Junior Year — Second Semester	
THEATRE ARTS 124 — Technical Practicum	1
THEATRE ARTS ELECTIVES	6
MINOR REQUIREMENT	3
DRAKE CURRICULUM REQUIREMENT	5
TOTAL	15

Senior Year — First Semester	
THEATRE ARTS ELECTIVES	5
MINOR REQUIREMENT	6
DRAKE CURRICULUM REQUIREMENT	5
TOTAL	16

Senior Year — Second Semester	
THEATRE ARTS ELECTIVES	6
MINOR REQUIREMENT	5
SENIOR CAPSTONE EXPERIENCE	1
TOTAL	12

Minor in Theatre Arts

For B.A. students wishing to minor in theatre arts, the following courses are suggested by the department.

	Credit hours
THEA 3 — Technique of Acting I	3
THEA 4 — Technique of Acting II	3
THEA 14 — Movement I	2
THEA 20 — Voice I	2
THEA 30 — Stagecraft I	4
THEA 31 — Costuming I	4
THEA 32 — Make-up	3
THEA 76 — Introduction to the Theatre	3
THEA 120 or 121 — Theatre History I or II	3
TOTAL	27

Honorary and Professional Organizations: School of Fine Arts

THE AMERICAN INSTITUTE OF GRAPHIC ARTS (AIGA) is a national, nonprofit organization, founded in 1914, that conducts an interrelated program of competitions, exhibitions, publications, educational activities and projects in the public interest to promote the advancement of graphic design. AIGA, in which Drake's Department of Art and Design has a departmental membership, has a Code of Ethics and seeks to heighten awareness of the function and importance of graphic design, and of the graphic designer, in creating effective communications.

ART DIRECTORS ASSOCIATION OF IOWA is a nonprofit fraternal organization of professionals engaged in the field of commercial art. ADAI strives to maintain and further the profession, assist others interested in entering the field and encourage high standards of competence. ADAI also awards scholarships to students in commercial art and graphic design at seven Iowa colleges and universities, and it holds a design exhibition in May to recognize outstanding work by professionals and students. Drake's Department of Art and Design has a departmental membership in ADAI.

MU PHI EPSILON is a national professional music sorority. It was founded nationally in 1903 and at Drake University in 1917. Membership is based on scholarship, musicianship, character and personality.

PHI BETA is a national professional fraternity for the performing and creative arts. The Drake chapter, which was founded in 1989, is the first chapter intended primarily for the visual arts. Membership is based on talent, scholarship and character.

PI KAPPA LAMBDA, originated in 1918, is the oldest musical society in the United States. Seniors who rank in the upper fifth of their class, juniors who rank in the upper tenth of their class, and graduate music students who have distinguished records are eligible for membership. Outstanding performance and leadership are the other chief qualifications. MU chapter at Drake University, established in 1928, has about 250 members.

PHI MU ALPHA SINFONIA fraternity is a national organization of professional musicians founded in 1898. Alpha Beta chapter was organized at Drake University in 1922. It selects men with

musical ability who are interested in promoting music in America. The organization has a chorus and many ensemble groups and soloists.

SIGMA ALPHA IOTA is the oldest professional music fraternity for women in the United States. Sigma Alpha Iota is professional in character, upholding the highest musical standards and ideals. The Drake University chapter was founded in 1920.

Scholarships, Grants and Loans: School of Fine Arts

The awards listed here are available to students engaged in fine arts activities. Application for these scholarships and grants should be addressed to the dean of the College of Arts and Sciences, Drake University, Des Moines, Iowa 50311. Fine arts students also may be eligible for the scholarships, loans and other financial aid listed in the financial aid section of this catalog.

SCHOOL OF FINE ARTS HONOR SCHOLARSHIPS. A limited number of scholarships are available in the School of Fine Arts for students who have displayed unusual proficiency in the fields of art and design, music or theatre arts. A First Year applicant for this scholarship must be in the upper one-third of the graduating class.

SCHOOL OF FINE ARTS BAND, ORCHESTRA AND CHORAL GRANTS. Drake University, through its School of Fine Arts, awards a limited number of band, orchestra and choral grants to persons evidencing unusual talent in these fields.

THE DR. ALLAN LEHL SCHOLARSHIP FUND provides scholarships to students majoring in music with an emphasis in church music, voice, choral music or organ. Recipients are selected near the end of their first year, and the scholarship is continued through the recipient's senior year if the individual maintains an adequate academic record as a music major. Preference is given to students who show an interest in participating in the church music program at First Christian Church.

THE CENTRAL IOWA BAND ASSOCIATION SCHOLARSHIP, established by the association, is awarded to a band instrument major. The amount is variable.

CHRISTIAN SCIENCE CAMPUS ORGANIZATION SCHOLARSHIP. This \$100 scholarship is for a fine arts student who is a member of the First Church of Christ Scientist of Boston, Massachusetts, or a branch church. If there are no worthy applicants in the fine arts area, the scholarship becomes available to a Christian Science student attending any of the other colleges or schools of the University. The award is made by the president of the University and the dean of the College of Arts and Sciences.

THE EDITH M. BUNDY FISK MUSIC MEMORIAL SCHOLARSHIP FUND, established by Walter Fisk, provides scholarship funds to talented music students in need of financial assistance. The dean of the College of Arts and Sciences selects the recipients, and the stipends vary depending upon endowment income.

THE JAMES J. FIDERLICK MEMORIAL AWARD is an outside scholarship presented annually by the Drake Alumni Theatre Association to honor the memory of Professor Fiderlick, founder of the Drake University Theatre. This scholarship, initiated in 1986, is given to theatre arts juniors or seniors who have demonstrated merit in their work. The award is made each spring.

THE EDWIN B. GARRIGUES FOUNDATION SCHOLARSHIP is awarded annually to a music major, based on talent and need. The amount is variable.

THE GODWIN MEMORIAL ENDOWMENT FUND, established by Iris Godwin in memory of John Godwin, provides scholarships for music students who are outstanding students and superior performers.

THE DANIEL B. GOLDBERG THEATRE ARTS SCHOLARSHIP was established in 2000 by Dorothy H. Goldberg in memory of her son, Daniel B. Goldberg, a Drake theatre graduate. This renewable scholarship is awarded to a current theatre arts student based on talent, contributions to the department and financial need. The stipend varies depending on endowment income.

THE DOUGLAS WEBB RIDDLE FOUNDATION SCHOLARSHIP FUND was established by the Douglas Webb Riddle Foundation Inc. to ensure that excellent high school band students are able to obtain an education in the School of Fine Arts at Drake. Preference for the scholarships is given on the basis of talent and the need for appropriate balance within the band program. Recipients are selected by the director of bands and the dean of the College of Arts and Sciences.

THE ELIZABETH MILLER VETTER MUSIC SCHOLARSHIP is awarded to deserving music students, determined by the University's Office of Student Financial Planning. The stipend varies depending on endowment income up to the amount of tuition.

THE FRANCIS GRAMENZ MEMORIAL SCHOLARSHIP is awarded to a junior or senior music major with a minimum grade-point average of 3.30 who shows exceptional talent in either the fields of music history or piano performance and who, through decency, kindness, thoughtfulness and generosity of human spirit contributes to the greater good of other music students.

THE HAROLD AND LORETTA (JUSTICE) NOLIN SCHOLARSHIP is awarded to juniors or seniors demonstrating special talent in theatre arts.

THE HAZEL BETTS LOONEY SCHOLARSHIP FUND is used to provide scholarships for deserving music students of good academic standing.

THE HAZEL S. HAGEDORN LOAN FUND provides loans to full-time students in the Department of Music. Loans are made to students with need. Repayment is deferred until graduation and/or withdrawal from the University.

THE HULSHIZER MUSIC EDUCATION SCHOLARSHIP was established by Mrs. Emily Hulshizer in memory of Stan Hulshizer, former director of choral activities at Drake University. This scholarship is awarded to junior and/or senior music education majors who demonstrate outstanding musical and performing talents.

JUDITH SMITH MEMORIAL AWARD is given to a senior art and design student to assist the student in purchasing supplies necessary for continuation of their creative activities during their senior year. The award is granted annually.

THE MILDRED ALLISON HORAN SCHOLARSHIP FUND, established by the estate of Mildred Allison Horan, FA'14, provides scholarship assistance to vocal music majors who demonstrate outstanding musical talent and document financial need.

THE MILTON GLASER SCHOLARSHIP FOR THE STUDY OF GRAPHIC DESIGN. This award amount is variable and is based on merit. Two awards are granted annually to an entering first year student and a transfer student.

MONROE BAND SCHOLARSHIPS, established by the Monroe Company of Colfax, Iowa, are for band instrument majors in any stage of training. Talent and need are considered in making the awards.

MU PHI EPSILON SCHOLARSHIPS. The Des Moines alumnae chapter of Mu Phi Epsilon offers annual scholarship awards to selected students of Omega chapter. In addition, a loan fund is available for members of the sorority.

THE FRANK NOYES ANNUAL VIOLIN SCHOLARSHIP MEMORIAL FUND provides an annual award to an outstanding violinist in memory of Frank Noyes, former violin teacher and conductor of the Drake Symphony Orchestra.

THE PHI MU ALPHA FRANCIS J. PYLE SCHOLARSHIP, awarded to male music majors, was established by Alpha Beta chapter (Drake) of Phi Mu Alpha Sinfonia. Musical talent, general academic ability and financial need are considered in awarding this scholarship.

PRESSER FOUNDATION SCHOLARSHIPS IN MUSIC are granted to music students selected by the dean of the College of Arts and Sciences and the president of the University. Students planning to become music teachers are given preference.

SIGMA ALPHA IOTA SCHOLARSHIP. The Des Moines Alumnae Chapter of Sigma Alpha Iota established the Kathleen Davison Scholarship, awarded annually to a full-time music major for use in paying tuition for the following school year.

WYONA FARGO SCOTT MEMORIAL SCHOLARSHIPS are offered to worthy students who are specializing in the fields of theatre arts/speech. The stipends vary depending upon endowment income.

JUDITH SMITH MEMORIAL AWARD

This award is given to a senior art history, graphic design or studio art student to assist in purchasing supplies necessary for continuation of their creative activities during their senior year. The award is granted annually.

YOUNG ARTISTS' AUDITIONS AWARDS. Winners selected from five categories (strings, winds, voice, keyboard and groups of two or more) perform with the Drake Symphony Orchestra during one of its regular concerts.

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