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The College of Arts and Sciences

Mission Statement

By pursuing excellence in research and scholarship, we educate our students to become ethical professionals and citizens with knowledge of and appreciation for the fundamental interactions among the humanities and the sciences in a fast-changing, challenging, and diverse world.

About the College of Arts and Sciences

The College of Arts and Sciences was established on July 1, 1990, with the merger of the College of Sciences and the College of Humanities and Social Sciences. The educational objectives of the college encompass a wide range of goals: to provide general educational courses for the University's undergraduates; to provide disciplinary study in the arts and sciences for our Bachelor of Science and Bachelor of Arts majors; to offer Master of Science and Doctoral programs in selected areas of faculty and research strength; to promote research, scholarships, and creative activities which expand disciplinary boundaries and to enhance faculty expertise and the quality of the university's instruction; and to improve the quality of life for the University's community through co-curricular programming in the arts and sciences.

Each undergraduate major offered by the College of Arts and Sciences combines disciplinary study with broad and useful preparation for a variety of careers as well as for further study in graduate or professional school. Each combines arts and sciences coursework with an emphasis on new and emerging technologies related to their respective fields.

All undergraduate majors in the college offer co-operative education program options, with special opportunities relating academic study to work experience, or internships.

The college is open to transfer students, but (for undergraduate students) transfer after the seventh term is not recommended. Applicants from another Drexel college may be admitted in any term of the academic year if they meet program requirements. Students should consult the Assistant Deans of the College of Arts and Sciences for further information. The College's dedicated staff of professional advisors work to enhance a student's educational journey through a comprehensive academic advising program.

For additional information, visit the The College of Arts and Sciences web site.



The College of Arts and Science

Bachelor of Arts Degree Programs

The Bachelor of Arts degree provides a broad-based liberal education while allowing students the option of practical application of their studies through Drexel's well-established cooperative education program. (In some cases, four-year options or alternatives to the co-op experience are available.)

The BA degree continues the Drexel focus on critical reasoning, a strong grounding in arts and sciences, and effective development of communication skills. The degree is intended to provide a solid liberal arts background for graduate study as well as for professional degrees in such areas as law, public history, foreign service, education, counseling, social work, public health, and medicine.

While the BA degree requires more liberal arts courses than the Bachelor of Science degree, it also allows more varied choices in the fulfillment of math and science requirements. The BA degree prepares students for an ever changing and culturally diverse world and will provide them with the tools they will need to be leaders in industry, arts, government, and human services.

Bachelor of Science Degree Programs

The College offers Bachelor of Science degrees in the natural and social sciences. The BS degree is similar to the Bachelor of Arts degree, but requirements more focused coursework in the sciences than the BA

In several majors both a BS and a BA are available. Both degrees provide the same foundation in the discipline. The BS is a more structured approach, while the BA allows for more flexibility. Drexel's strong advising program helps students learn more about the degree options and which option matches each student's long-term goals.

Curricular Organization for Science and Mathematics Majors

All Students in the majors in biological sciences, chemistry, mathematics, and physics study similar subjects during the freshman year. This recognizes the fundamental knowledge common to those disciplines; it also allows for transfer between majors at the end of the freshman year without loss of time.

Upper-class students in those disciplines are given the opportunity to take electives in liberal, scientific, and technically related fields.

The flexibility available in the elective programs and the opportunity to complete an academic minor permit students to prepare for continuing studies in graduate or professional school, for work in government or industry, or for a change in educational goals.

Generally the basic requirements in each major are completed prior to the senior year. Thus, for science and mathematics majors, the technical electives in the last year may be selected in some advanced specialty within the specific major, and free electives may be used for enrichment or to prepare for a change of field. Each student's elective program must be approved by an adviser from his or her major department.

Curricular Organization for Humanities and Social Science Majors

Students majoring in the humanities and social sciences complete similar sets of courses in the first two years. Some of these courses may be identical (the

freshmen year English sequence) while others will vary by discipline, such as the math and science requirements in the BA and BS options.

Students in the Communication major will take at least one course in their proposed concentration of Public Relations, Global Journalism, or Technical Communication during the freshman year. More intensive work in the concentration begins in the sophomore year, as do elective options.

All humanities and social science students have a significant degree of flexibility, allowing them to complete disciplinary requirements, and, through free electives, to take a minor or perhaps another major to prepare for entry into graduate or professional school.

Majors in Science or Mathematics with Secondary and Elementary Teacher Certification

The School of Education offers innovative and science-intensive curricula that combine academic majors with appropriate coursework and experiences to satisfy state requirements for certification in biology, chemistry, earth and space sciences, mathematics, physics, and elementary education. Students interested in the teacher education programs should contact the director of the School of Education.

Accelerated Program and Bachelor's/Master's Dual Degree Program

The Accelerated Program of the College of Arts and Sciences provides opportunities for highly talented and strongly motivated students to complete both an undergraduate degree and a master's degree in one field in five years. Students generally enroll in a five year co-op program, but replace the third six month co-op with courses to complete the graduate degree requirements. Students enrolled in this program may take advantage of the five-year Bachelor's/Master's Dual Degree Program described in the Academic Regulations section.

Preprofessional Programs

Students wishing to prepare for admission to professional schools of medicine, veterinary medicine, or dentistry may obtain preprofessional counseling and assistance in making application from the Office of Preprofessional Programs, 215-895-2437. For law school admission assistance, students may call 215-895-1632.

Degree Requirements

Certification for graduation is provided by the individual department or program according to the requirements for each major, which are set forth in subsequent pages. The minimum number of credits required for the degrees of Bachelor of Arts and Bachelor of Science varies from one department and program to another but in no case does it exceed 192 credits of academic work with two to six terms of cooperative experience.

Writing-Intensive Course Requirements

In order to graduate, all students must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.



Anthropology

About the Major

Students majoring in anthropology broaden their understanding of the diversity of cultures and ways of life in the global environment through theoretical courses, content area courses, and specialized courses in field techniques and methodology.

The core of the major is an internship program and corresponding seminar (ANTH 390) taken each year for a total of 12 credits. The seminar requires presentation of research and facilitates the transformation of field experiences into ethnographic writing, films and other products. The class is restricted to anthropology majors and has been designed to provide students with the opportunity to be mentored by faculty and to establish peer-mentoring relationships with other students both within and outside of formal classes. This seminar is a place where fieldwork can be planned and issues of participant observation that come up in other courses can be discussed and analyzed.

For more information about the Anthropology major, visit the Culture and Communication department's Anthropology web site.

Anthropology

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

Conoral requi	iromonto	31.0 -
General requi	rements	35.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Two Mathematics courses	6.0-8.0
	Two Science courses	6.0-8.0
Foreign langı	age courses	
	A minimum of two consecutive language courses*	8.0
* At least one	foreign language course must be at the 200-level.	
Humanities a	nd Fine Arts	12.0 Credits
LING 102	Language and Society	3.0
COM 150	Mass Media and Society	3.0
	Two Humanities and Fine Arts courses	6.0
Social and Be	Phavioral sciences	12.0 Credits
ANTH 110	The Human Past: An Introduction to Physical Anthropology and Prehistoric Archaeology	3.0
ANTH 330	Media Anthropology	3.0
COM 355	Ethnography of Communication	3.0
SOC 101	Introduction to Sociology	3.0
International	Studies	6.0 Credits
ANTH 310	Societies in Transition	3.0
	International Studies elective	3.0
Studies in Div	versity	6.0 Credits
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
ANTH 215	Anthropology of Gender	3.0
	Anthropology of Gender v requirements	36.0 36.0 Credits
Community R	esearch Theory of Applied and Community Sociology	3.0
ANTH 370	Ethnographic Methods	
ANTH 370 ANTH 390		3.0
AN I 🗆 390	Seminar in Ethnography	12.0

31.0 -

Methods Sequence

COM 220	Qualitative Research Methods	3.0
SOC 250	Research Methods I	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
Theory Seque	nce	
	A	
COM 210	Communication Theory	3.0
SOC 260 WI	Communication Theory Classical Social Theory	3.0 3.0

Anthropology Program Requirements Students select 30.0 credits from the following list:		30.0 Credits
ANTH 120	Biblical Archaeology	3.0
ANTH 210	Worldview: Science, Religion, Magic	3.0
ANTH 212	Topics in World Ethnography	3.0
ANTH 220	Aging in Cross-Cultural Perspectives	3.0
ANTH 240	Urban Anthropology	3.0
ANTH 255	Psychological Anthropology	3.0
ANTH 312	Approaches to Intercultural Behavior	3.0
ANTH 355	Anthropology of Cyberspace	3.0
ANTH 360	Culture and the Environment	3.0
ANTH 365	Family and Kinship	3.0
ANTH 380	Special Topics in Anthropology	3.0
COM 345	Intercultural Communication	3.0
COM 360	International Communication	3.0
SOC 125	Sociology of the Aging	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 220	Wealth and Power	3.0
SOC 335	Sociology of Education	3.0

Electives	45.0 - 49.0 Credits
Free electives	45.0 - 49.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

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Recommended Plan Of Study

BA Anthropology 4 YR UG Co-op Concentration

Term 1 ANTH 101 ENGL 101 UNIV 101	Introduction to Cultural Diversity Expository Writing and Reading The Drexel Experience Foreign language course Math elective Term Credits	Credits 3.0 3.0 1.0 4.0 3.0-4.0 14.0-15.0
Term 2 ANTH 110 ENGL 102 UNIV 101	The Human Past Persuasive Writing and Reading The Drexel Experience Foreign language course Math elective Term Credits	Credits 3.0 3.0 1.0 4.0 3.0-4.0 14.0-15.0
Term 3 ANTH 390 ENGL 103 SOC 101 SOC 260 SOC 270	Seminar in Ethnography Analytical Writing and Reading Introduction to Sociology Classical Social Theory Theory of Applied and Community Sociology Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 15.0
Term 4 ANTH 215 COM 150 COM 220	Anthropology of Gender Mass Media and Society Introduction to Communication Humanities/Fine Arts elective Lab Science elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 15.0
Term 5 ANTH 370 COM 210 SOC 250	Ethnographic Methods Theory and Models of Communication Research Methods I Humanities/Fine Arts elective Lab Science elective Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0
Term 6 ANTH 310 ANTH 390 LING 101 SOC 364	Societies in Transition Seminar in Ethnography Introduction to Linguistics Computer-Assisted Data Analysis I Anthropology program requirement (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0
Term 7 ANTH 330	Media Anthropology Free electives Term Credits	Credits 3.0 12.0 15.0

Term 8 ANTH 390	Seminar in Ethnography Anthropology program requirements (See degree requirements) Free elective	Credits 3.0 6.0 4.0
٠	Term Credits	13.0
Term 9		Credits
	Anthropology program requirements (See degree requirements)	6.0
	Free electives Term Credits	6.0 12.0
Term 10		Credits
ANTH 410 COM 355	Cultural Theory Ethnography of Communication	3.0 3.0
l .	Anthropology program requirements (See degree	
	requirements)	6.0
•	Free electives Term Credits	6.0 18.0
Term 11		Credits
•	Anthropology program requirements (See degree requirements)	6.0
	Free electives Social and Behavioral Sciences elective	12.0 3.0-4.0
•	Term Credits	21.0-22.0
Term 12		Credits
<u>ANTH 390</u>	Seminar in Ethnography	3.0
	Anthropology program requirement (See degree requirements)	3.0
	Free electives Term Credits	9.0 <i>15.0</i>
	Total Credits (minimum)	182.0-185.0
	Total Greates (Illillillian)	102.0-103.0

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Minor in Anthropology

ANTH 380

The anthropology minor provides students in other fields with a cross-cultural awareness that will enable them to interact with a variety of people in a wide range of situations. By giving students a respect for and understanding of the basis of cultural variation, the minor can facilitate working in international settings. Even for students working within the United States, anthropology offers increased sensitivity to ethnic and population diversity. Medicine, law, counseling, nursing, and nutrition are only a few of the fields in which clients and professionals may come from different parts of our heterogeneous society.

Required (core) courses **ANTH 101 Cultural Diversity: Introduction to Cultural Anthropology** 3.0 The Human Past: An Introduction to Physical **ANTH 110** 3.0 Anthropology and Prehistoric Archaeology **ANTH 210** 3.0 Worldview: Science, Religion, Magic **ANTH 370 Ethnographic Methods** 3.0 **ANTH 410** 3.0 **Cultural Theory** Three of the following courses 9.0 **ANTH 215 Anthropology of Gender** 3.0 **ANTH 330** Media Anthropology 3.0 **ANTH 120** 3.0 Biblical Archaeology ANTH 212 Topics in World Ethnography 3.0 **ANTH 220** 3.0 **Aging in Cross-Cultural Perspectives ANTH 240 Urban Anthropology** 3.0 **ANTH 310** 3.0 Societies in Transition **ANTH 312** Approaches to Intercultural Behavior 3.0 **ANTH 355** Anthropology of Cyberspace 3.0 **ANTH 360 Culture and the Environment** 3.0 ANTH 365 **Family and Kinship** 3.0

Special Topics in Anthropology

3.0

Biological Sciences

The biological sciences encompass many areas of study. Biologists study the structure and functions of living organisms from the individual cell to the full organism, and collectively to the community level. Discoveries in the biological sciences influence many aspects of our daily lives and have become the foundation of most new developments of the new century. In the past two decades, advances in molecular biology and genetics have been rapid, opening many new, exciting career opportunities in the fields of biotechnology and genetic engineering. Biologists can pursue a variety of options including careers in medicine, dentistry, veterinary medicine or other health-related areas; in research or commercial laboratories; in various private and government agencies; and in teaching. In fact, more than 100 different occupations have been listed for biologists.

The biological science resides in the Department of Biology. Students earn a bachelor's degree in the biological sciences and are prepared for technical careers in research or commercial laboratories, or for professional schools or graduate study. Graduates in the biological sciences are in demand and enjoy a high placement rate with competitive salaries. Graduates with a degree in the biological sciences work for pharmaceutical companies, medical research laboratories, or biotechnology companies, or in government laboratories.

The course requirements identifes required support courses in chemistry, physics, mathematics, humanities, and science and human affairs. With proper selection of electives, students can meet teacher certification requirements or complete a minor in another field. Students are encouraged to consult frequently with their academic adviser for curriculum planning.

Co-op/internship employment is an option for biological science students. The major offers three distinct plans:

Five-year option with co-op/internship experience: This option allows for the greatest amount of employment experience, with three distinct six-month periods of employment included with studies. After the start of the sophomore year, students study or work through all terms, including summer.

Four-year option with one co-op/internship experience: The degree includes just one six-month period of full-time employment. After the start of sophomore year, students study or work through all terms, including summer.

Four-year option without co-op experience: The degree can be completed in four years without co-op/internship employment. Students are not required to pursue studies during any of the summer terms.

Biological Sciences

Bachelor of Science: 187.5 credits

Degree requirements (incoming students, 2009/2010)

Bioscience required courses

BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5
BIO 123	Organismal Diversity and Ecology	4.5
BIO 201	Human Physiology I	4.0
BIO 203	Human Physiology II	4.0
BIO 214	Principles of Cell Biology	3.0
BIO 215	Techniques of Cell Biology	2.5
BIO 218	Principles of Molecular Biology	3.0
BIO 219	Techniques of Molecular Biology	2.5
BIO 270	Developmental Biology	3.0
BIO 311	Metabolism	4.0
BIO 460	Evolution	3.0
BIO 471	Seminar in Biological Science	2.0
BIO 472	Seminar in Biological Science	2.0
BIO 473	Seminar in Biological Science	2.0
ENVS 230	General Ecology	3.0
	Bioscience electives*	32.0

^{*}Students must select at least four laboratory courses and eight lecture courses, with at least one from each area of the following areas: (1) Organismal, Cellular and Molecular Biology; (2) Ecology and Environmental; and (3) Nutrition and Foods.

Mathematics and statistics courses

MATH 410	Scientific Data Analysis I	3.0
MATH 411	Scientific Data Analysis II	3.0
One of the fol	llowing math sequences:	
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0
MATH 239	Mathematics for the Life Sciences	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
Physical scie	nces courses	
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0

CHEM 243	Organic Chemistry III	3.0
CHEM 244	Organic Chemistry I Laboratory	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
PHYS 152	Introductory Physics I	4.0
PHYS 153	Introductory Physics II	4.0
PHYS 154	Introductory Physics III	4.0
Humanities an	d social science courses	
-		
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
COM 230	Techniques of Speaking	3.0
COM 310 WI	Technical Writing	3.0
PHIL 251	Ethics	3.0
UNIV 101	The Drexel Experience	2.0
	Humanities and social sciences electives	6.0
	Science, technology, and human affairs elective	3.0
Other courses		
	Free electives*	15.0

Free electives*	15.0

^{*} Students can choose from a variety of course offerings to best meet their academic interests. The program also provides opportunities for qualified students to take research credits (through permission of department), allowing them to carry out a research project with a faculty member.

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

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Recommended Plan Of Study

BS Biological Sciences 5 YR UG Co-op Concentration

Term 1		Credits
BIO 121	Physiology and Nutrition	4.5
CHEM 101	General Chemistry I	3.5
ENGL 101	Expository Writing and Reading	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
MATH 121	Calculus I	4.0
or MATH 101	Introduction to Math Analysis I	4.0
	Term Credits	16.0
	Term Oreans	70.0
Term 2		Credits
BIO 122	Cells and Genetics	4.5
CHEM 102	General Chemistry II	4.5
ENGL 102	Persuasive Writing and Reading	3.0
UNIV 101	The Drexel Experience	1.0
MATH 122	Calculus II	4.0
or		
MATH 102	Introduction to Math Analysis II	4.0
•	Term Credits	17.0
Term 3		Credits
BIO 123	Organismal Diversity and Ecology	4.5
<u>CHEM 103</u>	General Chemistry III	5.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 239	Mathematics for the Life Sciences	4.0
Or MATH 122	0.1.1.1	4.0
MATH 123	Calculus III	4.0
	Term Credits	16.5
Term 4		Credits
BIO 218	Principles of Molecular Biology	3.0
BIO 219	Techniques in Molecular Biology	2.5
CHEM 241	Organic Chemistry I	4.0
ENVR 230	General Ecology	3.0
PHYS 152	Introductory Physics I	4.0
1	Term Credits	16.5
		76.5
Term 5		Credits
BIO 214	Principles of Cell Biology	3.0
BIO 215	Techniques in Cell Biology	2.5
CHEM 242	Organic Chemistry II	4.0
CHEM 244	Organic Chemistry Laboratory I	3.0
PHYS 153	Introductory Physics II	4.0
	Term Credits	16.5
Term 6		Credits
BIO 201	Human Physiology I	4.0
CHEM 243	Organic Chemistry III	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
PHYS 154	Introductory Physics III	4.0
i.	Humanities/Social Science elective	3.0
	Term Credits	17.0
Tours 7		One all the
Term 7		Credits

BIO 203 PHIL 251	Human Physiology II Ethics	4.0 3.0
Ī	Biology laboratory requirement course (See degree requirements)	2.0
i	Bioscience elective	3.0
•	Free elective	3.0
·	Term Credits	15.0
Term 8		Credits
BIO 270	Development Biology	3.0
BIO 311 COM 230	Metabolism	4.0
COW 230	Techniques of Speaking Biology laboratory requirement course (See degree	3.0
	requirements)	2.0
•	Humanities/Social Science elective	3.0
•	Term Credits	15.0
Term 9		Credits
COM 310	Technical Communication	3.0
•	Science, Technology and Human Affairs elective (Any HIST course 281-294)	3.0
	Two biology laboratory requirement courses (See degree requirements)	4.0
•	Bioscience elective	3.0
•	Free elective	3.0
	Term Credits	16.0
Term 10		Credits
BIO 460	Evolution	3.0
BIO 471	Seminar in Biological Science	2.0
MATH 410	Scientific Data Analysis I	3.0
•	Bioscience electives Term Credits	6.0 14.0
Term 11		Credits
BIO 472	Seminar in Biological Science	2.0
MATH 411	Scientific Data Analysis II	3.0
1	Bioscience electives	6.0
•	Free elective	3.0
	Term Credits	14.0
Term 12		Credits
<u>BIO 473</u>	Seminar in Bioscience	2.0
•	Bioscience electives	6.0
•	Free electives Term Credits	6.0 <i>14.0</i>
	remi Oreans	14.0
	Total Credits (minimum)	187.5

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Minor in Biological Sciences*

The minor biological sciences is designed for students who whish to become acquainted with the life sciences while pursuing a major in another area. This option should be particularly useful for students majoring in areas such as chemistry, engineering, physics, or psychology who are interested in admission to medical schools or graduate programs. Students interested in the minor should consult with an academic adviser in the department for help with course selections.

For the minor in Biological Sciences, students must complete 33.5 credits of coursework as follows:

Required courses

BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5
BIO 123	Organismal Diversity and Ecology	4.5
BIO 214	Principles of Cell Biology	3.0
BIO 215	Techniques of Cell Biology	2.5
BIO 218	Principles of Molecular Biology	3.0
BIO 219	Techniques of Molecular Biology	2.5
BIO 306	Biochemistry Laboratory	2.0
BIO 311	Metabolism	4.0
BIO 460	Evolution	3.0

*Note: The department also offers a minor in Bioinformatics specifically designed for students majoring in biomedical engineering, biological science, computer science, information systems, or mathematics.

Minor in Bioinformatics

The bioinformatics minor examines the application of computer technology and programming to biological fields such as genomics or proteomics. This multidisciplinary program is designed for students majoring in biomedical engineering, bioscience, computer science, information systems, or mathematics. Combination with other majors is possible through consultation with the program director. The minor is divided among courses in biology, programming and computation, human-computer interface design, databases, and statistics.

Students must complete a minimum of 24 credits of coursework as follows:

Core courses

	Two senior research project courses*	6.0
BIO 332	Bioinformatics II	3.0
BIO 331	Bioinformatics I	3.0

^{*} Until research project courses are developed specifically for this minor, the department will accept whatever research project(s) the student has taken as part of their major under the number for that major.

Area-specific courses

In each of the following five areas, the requirements of a student's major cover some of the competencies for Bioinformatics, while the remaining requirements will be fulfilled within the minor itself.

A plan of study is determined by an Advisor in the Department of Biology based on the student's major field of study. Thus, the requirements for completing the minor are determined on a case-by-case basis. Possible options for area-specific courses include the following:

Bioscience

BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	2.5
BIO 449	Recombinant DNA Laboratory	5.0
NFS 400	Nutritional Chemistry	3.0
NFS 401	Nutritional Chemistry Laboratory	1.0

Programming and Computation

CS 171	Computer Programming I	3.0
CS 172	Computer Programming II	3.0
CS 260	Data Structures	3.0
INFO 102	Introduction to Information Systems	3.0

Human/Computer Interface Design

CS 337	Human-Computer Interaction	3.0
INFO 110	Human-Computer Interaction I	3.0

Databases

CS 461	Database Systems	3.0
INFO 200	Systems Analysis I	3.0
INFO 210	Database Management Systems	3.0
Statistics		
MATH 310	Introduction to Probability and Statistics	4.0
MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0
MATH 410	Scientific Data Analysis I	3.0
MATH 411	Scientific Data Analysis II	3.0

Chemistry

Drexel's Department of Chemistry offers a BS degree certified by the American Chemical Society Committee on Professional Training and a BA degree for those interested in following their undergraduate educations in chemistry with professional school, such as law or medicine.

Each student plans a course of study and selects electives in consultation with an advisor in the Chemistry Department. Students who show initiative and laboratory ability are encouraged to select a research problem and/or other advanced courses in chemistry during the junior and senior years. Most graduate courses in chemistry are open to qualified seniors. Prerequisites and descriptions of available graduate courses appear in the graduate catalog.

Both a five year co-op degree and a four-year non-co-op degree are offered.

Facilities

There are seven undergraduate learning laboratory environments in the department: three freshman Chemistry labs, an advanced Organic Chemistry lab, a Physical Chemistry lab, an instrumentation laboratory and a combined Analytical/Inorganic Chemistry lab. The freshman and Organic labs were recently renovated to be state-of-the-art facilities.

Mass Spectrometry Laboratory

Finnigan LCQ LC-MS mass spectrometer equipped with an electrospray ionization source, a Waters Autospec M high resolution mass spectrometer, and a Bruker Autoflex LRF MALDI mass spectrometer.

Magnetic Resonance Laboratory

Varian INNOVA 300 MHz superconducting FT-NMR spectrometer, Varian INNOVA 500 MHz superconducting FT-NMR spectrometer, and a Varian X-band 12" EPR spectrometer.

Analytical Instrumentation Laboratory

The newly renovated and open-access departmental Analytical Instrumentation Laboratory includes two Perkin-Elmer (PE) Spectrum One Fourier-transform infrared absorption spectrometers each with a universal diamond ATR accessory, a PE Lambda-35 UV/visible spectrometer, a PE Lambda-950 UV/visible/NIR spectrometer with a 60-mm-diameter diffuse reflectance integrating sphere, a PE model 343 polarimeter, a PE LS55B luminescence spectrometer, a PE Clarus 500 capillary-column GC with dual FID detectors, a Clarus 500 capillary-column GC/MS system (with electron impact capability), a PE Series 200 Quaternary HPLC development system with UV/visible photodiode array detector, a PE Series 200 binary HPLC system equipped with a Sciex 2000 triple quadrupole MS detector, a PE Series 2000 binary gel permeation chromatography system with refractive index detector, and a Varian AA240FS flame atomic absorption spectrometer equipped with a GTA 120 graphite furnace accessory.

Other Departmental Facilities

The department has a VEECO INNOVA N3 Multimode scanning probe microscope and also maintains a computational chemistry laboratory equipped with nine Dell Optiplex 620 computers running Hyperchem v 7.5. Research laboratories for each of the department faculty members are located in Disque and Stratton Halls. Instrumentation available in the research laboratories is described on individual faculty web pages. Additional full-time support includes an instrument specialist (for NMR and MS), a glassblower (Chemistry Department), two electronics specialists (College of Arts & Sciences Electronics Shop), and four machinists (Drexel University Machine Shop).

Chemistry

Bachelor of Arts Degree: 184.5 credits

Degree requirements (incoming students, 2009/2010)

General education requirements*		43.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Humanities and arts electives	6.0
	International studies electives	6.0
	Social and behavioral studies electives	6.0
	Studies in diversity electives	6.0
	Language requirements courses	8.0

Chemistry requirements		49.0 Credits
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
CHEM 230	Quantitative Analysis	3.0
CHEM 231 WI	Quantitative Analysis Laboratory	2.0
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0
CHEM 243	Organic Chemistry III	3.0
CHEM 244	Organic Chemistry Laboratory I	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
CHEM 252	Physical Chemistry I	3.0
CHEM 357 WI	Physical Chemistry I Laboratory	2.5
CHEM 358	Physical Chemistry II Laboratory	2.5
CHEM 367	Chemical Information Retrieval	3.0
CHEM 421	Inorganic Chemistry I	3.0
CHEC 353	Physical Chemistry and Applications III	4.0

Chemistry electives	6.0 Credits
Chemistry electives**	6.0

^{**}Courses with CHEM prefix, although ENVS chemistry courses can also fulfill this requirement.

Biology requirements		13.5 Credits
BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5

Mathematics requirements		12.0 Credits
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0

Organismal Diversity and Ecology

Calculus III

4.5

4.0

Physics requirements		12.0 Credits
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 201	Fundamentals of Physics III	4.0

Free electives	53.0 Credits
Free electives	53.0

* Categories of Electives:

Humanities and arts electives

Designated courses in art, art history, communication studies, foreign languages (300-level or above), history, literature, music, philosophy, religion, and theatre arts.

International electives

BIO 123

MATH 123

Designated courses in anthropology, art history, history, literature, music, politics and sociology. Courses with an international focus may be used to fulfill requirements in other categories as well.

Social and behavioral studies electives

Designated courses in anthropology, economics, international relations, history, politics, psychology and sociology.

Studies in diversity electives

Africana studies, women's studies or designated cross-listed courses in anthropology, art, art history, history, literature, music, philosophy, politics and sociology.

Language requirement

Students may satisfy the language course requirements in two ways: (1) taking two terms of sequential study of a foreign language (or placement at the exit level of 103 or above); or (2) taking two terms of a computer language or placement out as determined by the Department of Computer Science.

Recommended Plan Of Study

BA Chemistry 4 YR UG No Co-op Concentration

Term 1		Credits
BIO 121	Physiology and Nutrition	4.5
CHEM 101	General Chemistry I	3.5
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
<u>UNIV 101</u>	The Drexel Experience	1.0
•	Term Credits	16.0
Term 2		Credits
BIO 122	Cells and Genetics	4.5
CHEM 102	General Chemistry II	4.5
ENGL 102	Persuasive Writing and Reading	3.0
MATH 122	Calculus II	4.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Term Credits	17.0
Term 3		Credits
BIO 123	Organismal Diversity & Ecology	4.5
ENGL 103	Analytical Writing and Reading	3.0
MATH 123	Calculus III	4.0
CHEM 103	General Chemistry III	5.0
	Term Credits	16.5
Term 4		Credits
CHEM 230	Quantitative Analysis	3.0
CHEM 231	Quantitative Analysis Laboratory	2.0
CHEM 241	Organic Chemistry I	4.0
•	Free electives	6.0
	Term Credits	15.0
Term 5		Credits
CHEM 242	Organic Chemistry II	4.0
CHEM 244	Organic Chemistry Laboratory I	3.0
CHEM 252	Physical Chemistry I	3.0
PHYS 101	Fundamentals of Physics I	4.0
	Term Credits	14.0
Term 6		Credits
CHEM 243	Organic Chemistry III	3.0
CHEM 245	Organic Chem Lab II	3.0
PHYS 102	Fundamentals of Physics II	4.0
	Chemistry elective	3.0
	Humanities elective	3.0
	Term Credits	16.0
Term 7		Credits
CHEM 357	Physical Chemistry Lab I	2.5
CHEM 367	Chemical Information Retrieval	3.0
CHEM 421	Inorganic Chemistry I	3.0
PHYS 201	Fundamentals of Physics III	4.0
•	Language course	4.0
	Term Credits	16.5

Term 8		Credits
CHEC 353	Physical Chemistry and Applications III	4.0
CHEM 358	Physical Chemistry Lab II	2.5
	Diversity studies elective	3.0
	International studies elective	3.0
	Language course	4.0
	Term Credits	16.5
Term 9		Credits
•	Chemistry elective	3.0
	Diversity studies elective	3.0
•	Humanities elective	3.0
•	International studies elective	3.0
	Social and Behavioral Sciences elective	3.0
•	Term Credits	15.0
Term 10		Credits
•	Free electives	12.0
•	Social and Behavioral Sciences elective	3.0
•	Term Credits	15.0
Term 11		Credits
1	Free electives	15.0
•	Term Credits	15.0
Term 12		Credits
•	Free electives	12.0
•	Term Credits	12.0
	Total Credits (minimum)	184.5

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Chemistry

Bachelor of Science Degree: 192.0 credits

Degree requirements (incoming students, 2009/2010)

General education requirements		23.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
HIST 281	History of Science II	3.0
	Technical electives*	6.0
	Liberal studies electives*	3.0

^{*}Technical electives are defined as 200+ level courses from Science, Mathematics, Business, Engineering or Information Studies. Liberal studies electives are defined as courses (at any level) from all other areas.

Chemistry requirements		87.5 Credits
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
CHEM 230	Quantitative Analysis	3.0
CHEM 231 WI	Quantitative Analysis Laboratory	2.0
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0
CHEM 243	Organic Chemistry III	3.0
CHEM 244	Organic Chemistry Laboratory I	3.0
CHEM 245	Organic Chemistry Laboratory II	3.0
CHEM 252	Physical Chemistry I	3.0
CHEM 346	Qualitative Organic Chemistry	5.5
CHEC 353	Physical Chemistry and Applications III	4.0
CHEM 355	Physical Chemistry IV	3.0
CHEM 357 WI	Physical Chemistry I Laboratory	2.5
CHEM 358	Physical Chemistry II Laboratory	2.5
CHEM 367	Chemical Information Retrieval	3.0
CHEM 420	Molecular Symmetry and Group Theory Applied to Chemistry	3.0
CHEM 421	Inorganic Chemistry I	3.0
CHEM 422	Inorganic Chemistry II	3.0
CHEM 425	Inorganic Chemistry Laboratory	4.0
CHEM 430	Analytical Chemistry I	3.0
CHEM 431 WI	Analytical Chemistry II	4.0
CHEM 493	Senior Research Project	9.0

7.5 Credits

BIO 122	Cells and Genetics	4.5
BIO 214	Principles of Cell Biology	3.0
Biochemistry re	equirements	6.0 Credits
	one lecture and one lab course from the choices below. ake the two lecture courses (BIO 404 and BIO 311) rathery combination.	•
Biochemistry le	ecture options:	
BIO 404	Structure and Function of Biomolecules	4.0
or BIO 311	Metabolism	4.0
Biochemistry la	boratory options:	
BIO 306	Biochemistry Laboratory	2.0
BIO 406	Computational Biochemistry Laboratory	2.0
Computer/math	ematics requirements	23.0 Credits
PHYS 160	Computer Programming	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
or MATH 210	Differential Equations	4.0
Physics require	ements	12.0 Credits
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 201	Fundamentals of Physics III	4.0
Free electives		33.0 Credits

Free electives

33.0

Recommended Plan Of Study

BS Chemistry, 5-Year Co-Op 5 YR UG Co-op Concentration

Term 1 CHEM 101 ENGL 101 HIST 281 MATH 121 UNIV 101	General Chemistry I Expository Writing and Reading History of Science II Calculus I The Drexel Experience Term Credits	Credits 3.5 3.0 3.0 4.0 1.0
Term 2 CHEM 102 ENGL 102 MATH 122 PHYS 101 UNIV 101	General Chemistry II Persuasive Writing and Reading Calculus II Fundamentals of Physics I The Drexel Experience Term Credits	Credits 4.5 3.0 4.0 4.0 1.0
Term 3 CHEM 103 ENGL 103 MATH 123 PHYS 102	General Chemistry III Analytical Writing and Reading Calculus III Fundamentals of Physics II Term Credits	Credits 5.0 3.0 4.0 4.0 16.0
Term 4 CHEM 230 CHEM 231 CHEM 241 MATH 200 PHYS 201	Quantitative Analysis Quantitative Analysis Lab Organic Chemistry I Calculus IV Fundamentals of Physics III Term Credits	Credits 3.0 2.0 4.0 4.0 4.0 17.0
Term 5 BIO 122 CHEM 242 CHEM 244 CHEM 252 MATH 210 Or MATH 201	Cells and Genetics Organic Chemistry II Organic Chemistry Lab I Physical Chemistry I Differential Equations Linear Algebra Term Credits	Credits 4.5 4.0 3.0 3.0 4.0 4.0
Term 6 BIO 214 CHEM 243 CHEM 245 CHEM 357	Principles of Cell Biology Organic Chemistry III Organic Chemistry Lab II Physical Chemistry Lab I Free electives Term Credits	Credits 3.0 3.0 3.0 2.5 6.0 17.5
Term 7 CHEC 353 CHEM 358	Physical Chemistry & Applications III Physical Chemistry Lab II Free electives	Credits 4.0 2.5 6.0

	Technical elective (200+ level, see degree requirements) Term Credits	3.0 15.5
Term 8		Credits
CHEM 367	Chemical Infomation Retrieval	3.0
CHEM 421	Inorganic Chemistry I	3.0
CHEM 430	Analytical Chemistry I	3.0
PHYS 160	Introduction to Scientific Computing	3.0
ı	Free elective	3.0
•	Term Credits	15.0
Term 9		Credits
CHEM 420	Molecular Symmetry and Group Theory-Chemistry	3.0
CHEM 431	Analytical Chemistry II	4.0
ı	Free electives	6.0
	Technical elective (200+ level, see degree requirements)	3.0
•	Term Credits	16.0
Term 10		Credits
CHEM 346	Qualitative Organic Lab	5.5
CHEM 493	Senior Research Project	3.0
BIO 404 Or	Structure and Function of Biomolecules	4.0
BIO 311	Metabolism	4.0
	Free elective	3.0
	Term Credits	15.5
Term 11		Credits
CHEM 493	Senior Research Project	3.0
BIO 406 Or	Computational Biochemistry Lab	2.0
BIO 306	Biochemistry Laboratory	2.0
•	Free electives	6.0
•	Liberal studies elective	3.0
•	Term Credits	14.0
Term 12		Credits
CHEM 355	Physical Chemistry IV	3.0
CHEM 422	Inorganic Chemistry II	3.0
CHEM 425	Inorganic Chemistry Lab	4.0
CHEM 493	Senior Research Project	3.0
•	Free elective	3.0
	Term Credits	16.0
	Total Credits (minimum)	192.0

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Recommended Plan Of Study

BS Chemistry, 4-Year Non-Co-Op 4 YR UG No Co-op Concentration

Term 1 CHEM 101 ENGL 101 HIST 281 MATH 121 UNIV 101	General Chemistry I Expository Writing and Reading History of Science II Calculus I The Drexel Experience Term Credits	Credits 3.5 3.0 3.0 4.0 1.0
Term 2 CHEM 102 ENGL 102 MATH 122 PHYS 101 UNIV 101	General Chemistry II Persuasive Writing and Reading Calculus II Fundamentals of Physics I The Drexel Experience Term Credits	Credits 4.5 3.0 4.0 4.0 1.0 16.5
Term 3 CHEM 103 ENGL 103 MATH 123 PHYS 102	General Chemistry III Analytical Writing and Reading Calculus III Fundamentals of Physics II Term Credits	Credits 5.0 3.0 4.0 4.0 16.0
Term 4 CHEM 230 CHEM 231 CHEM 241 MATH 200 PHYS 201	Quantitative Analysis Quantitative Analysis Lab Organic Chemistry I Calculus IV Fundamentals of Physics III Term Credits	Credits 3.0 2.0 4.0 4.0 4.0 17.0
Term 5 BIO 122 CHEM 242 CHEM 244 CHEM 252 MATH 210 Or MATH 201	Cells and Genetics Organic Chemistry II Organic Chemistry Lab I Physical Chemistry I Differential Equations Linear Algebra Term Credits	Credits 4.5 4.0 3.0 3.0 4.0 4.0
Term 6 CHEM 243 CHEM 245 CHEM 357	Organic Chemistry III Organic Chemistry Lab II Physical Chemistry Lab I Free electives Technical elective (200+ level, see degree requirements) Term Credits	Credits 3.0 3.0 2.5 6.0 3.0 17.5
Term 7 BIO 214 CHEM 367 CHEM 421 CHEM 430	Principles of Cell Biology Chemical Info Retrieval Inorganic Chemistry I	Credits 3.0 3.0 3.0

PHYS 160	Analytical Chemistry I Introduction to Scientific Computing Term Credits	3.0 3.0 15.0
Term 8 CHEC 353 CHEM 358 CHEM 420 CHEM 431	Physical Chemistry and Applications III Physical Chemistry Lab II Molecular Symmetry and Group Theory/Chemistry Analytical Chemistry II Free elective Term Credits	Credits 4.0 2.5 3.0 4.0 3.0 16.5
Term 9	Free elective Liberal studies electives Technical elective (200+ level, see degree requirements) Term Credits	Credits 6.0 3.0 6.0 15.0
Term 10 CHEM 346 CHEM 493 BIO 404 Or BIO 311	Qualitative Organic Lab Senior Research Project Structure and Function of Biomolecules	5.5 3.0 4.0
<u> </u>	Metabolism Free elective Term Credits	4.0 3.0 15.5
Term 11 CHEM 493 BIO 406 Or BIO 306	Senior Research Project Computational Biochemistry Laboratory Biochemistry Laboratory	Credits 3.0 2.0
	Free electives Term Credits	9.0 14.0
Term 12 CHEM 355 CHEM 422 CHEM 425 CHEM 493	Physical Chemistry IV Inorganic Chemistry II Inorganic Chemistry Lab Senior Research Project Free elective Term Credits	3.0 3.0 4.0 3.0 3.0 16.0
	Total Credits (minimum)	192.0

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Minor in Chemistry

The academic minor program in chemistry is designed to expose students to each of the major sub-disciplines of chemistry (analytical, inorganic, organic, and physical). In order to accomplish this students take a total of at least 27.5 credits of chemistry past the freshman year (100 level courses).

As chemistry is an experimental science at least two laboratory courses must be included in the group of courses taken for the minor. Students should note that their academic major may require certain chemistry courses that can also be used to fulfill the requirements for a minor in chemistry.

Required courses

CHEM 241	Organic Chemistry I	4.0
CHEM 230	Quantitative Analysis	3.0
CHEM 252	Physical Chemistry I*	3.0
CHEM 421	Inorganic Chemistry I	3.0
CHEM 244	Organic Chemistry I Laboratory	3.0
	A second Chemistry laboratory course	3.0
	Chemistry electives	8.5†

^{*} Students may substitute CHEC 352 Physical Chemistry II (4 credits) or CHEC 353 Physical Chemistry III (4 credits) for the CHEM 252 physical chemistry lecture requirement.

†The remaining credits can be selected from any of the regularly offered chemistry department lecture or laboratory courses 200-level and above according to specific interests. Note that existing course pre-requisites may affect which courses may be selected. The variable credit courses CHEM 493 Senior Research Project or CHEM 497 Undergraduate Research may also be used to fulfill either the lecture or laboratory requirements for the minor.



Communication

About the Curriculum

The Culture and Communication department offers majors in communication, with specializations in:

- Corporate and Public Relations
- Technical and Science Communication
- Global Journalism

In addition, the department offers majors in Sociology, Anthropology, Criminal Justice and Urban Environmental Studies.

The department is committed to helping students become broadly educated and professionally competent individuals. Students are exposed to a variety of media and are guided in the development of their interpretive and expressive skills.

All Communication majors take a common core of courses that emphasize communication theory and methods. Then, they specialize in one of three concentrations. Students in the Corporate and Public Relations concentration pursue careers in public relations, corporate training, and corporate communication. Those who choose the Technical and Science Communication concentration go on to work in technical writing, science writing, publishing, and software and hardware documentation. Global Journalism students pursue careers in journalism and news. Many communication graduates also go on to law school, to business school for an MBA, or to graduate school.

Students who elect the Corporate and Public Relations concentration have the option of pursuing either a Bachelor of Arts degree or a Bachelor of Science degree. Students who elect the Technical and Science Communication concentration must pursue the Bachelor of Science degree. Students in Global Journalism must complete the requirements for the Bachelor of Arts degree.

The department also offers minors in Anthropology, Communication, Criminal Justice and Sociology, each of which requires 24 credit hours of study.



Corporate and Public Relations

About the Concentration

The concentration in Corporate and Public Relations covers a broad range of activities that help an organization and its publics communicate with one another. The field includes public relations, media relations, financial writing, publication design, employee and customer communication, desktop publishing, and government relations.

Skills in this field run the gamut from written to spoken to visual communication. A corporate communication specialist might be called on to write articles for an inhouse newsletter, to research and write an annual report to shareholders, to publicize a special event, to write a speech for an executive, to plan a press conference, to develop a media plan for an organization, or to script a video for an employee orientation session.

Communication: Corporate and Public Relations Concentration

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General requirements

ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
COM 150	Mass Media and Society	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
SOC 101	Introduction to Sociology	3.0
UNIV 101	The Drexel Experience	2.0
	Two Mathematics courses	6.0-8.0
	Two Science courses	6.0-8.0
	Foreign language courses*	8.0
	Three Humanities/ Fine Arts courses	9.0
	Two Social/Behavioral Sciences courses	6.0
	Two International Studies electives	6.0
-	Two Studies in Diversity electives	6.0

^{*}At least one foreign language course must be at the 200-level.

Communicatio	n core requirements	36.0 Credits
Theory Seque	nce	
COM 101	Human Communication	3.0
COM 210	Theory and Models of Communication	3.0
COM 400	Seminar in Communication	3.0
SOC 260	Classical Social Theory	3.0
Methods Sequ	ence	
COM 220	Qualitative Research Methods	3.0
SOC 250	Research Methods	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
Additional Cor	re Requirements	
COM 230	Techniques of Speaking	3.0
COM 240	New Technologies in Communication	3.0
COM 380	Special Studies in Communications Theory	3.0
COM 491	Senior Project in Communication I	3.0
COM 492	Senior Project in Communication II	3.0
PHIL 305	Communication Ethics	3.0

Corporate and Public Relations concentration requirements		26.0 Credits
COM 260 WI	Fundamentals of Journalism	3.0
COM 280	Public Relations	3.0
COM 281	Advanced Public Relations	3.0
COM 282	Public Relations Writing	3.0

Other program requirements

MKTG 301	Introduction to Marketing Management	4.0
ORGB 300 WI	Organizational Behavior	4.0
LING 101	Introduction to Linguistics	3.0
or		
LING 102	Language and Society	

One of the following Visual Communication courses*:		3.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0

^{*} Or other courses as appropriate in COM or the College of Media Arts and Design.

Additional Electives

Communication electives (Any four courses with a COM or LING rubric at the 200-level or higher)	12.0
Culture electives (Any two courses with a SOC, ANTH or CJ rubric. At least one course must be at the 200-level or higher.)	6.0
Free electives	32.0 Credits or less

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BA Communication
5 YR UG Co-op Concentration /Corporate & Public Relations

Term 1		Credits
COM 101	Human Communication	3.0
ENGL 101	Expository Writing and Reading	3.0
SOC 101	Introduction to Sociology	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Foreign language course	4.0
•	Term Credits	14.0
Term 2		Credits
COM 150	Mass Media and Society	3.0
ENGL 102	Persuasive Writing and Reading	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
•	Foreign language course	4.0
	Mathematics course	3.0-4.0
	Term Credits	14.0-15.0
Term 3		Credits
<u>ANTH 101</u>	Introduction to Cultural Diversity	3.0
COM 280	Public Relations	3.0
ENGL 103	Analytical Writing and Reading	3.0
•	International studies elective	3.0
	Mathematics course	3.0-4.0
	Term Credits	15.0-16.0
Term 4		Credits
COM 210	Theory and Models of Communication	3.0
	Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher)	3.0
•	Free elective	3.0
•	Humanities/Fine Arts elective	3.0
	Science elective (See degree requirements)	3.0-4.0
	Term Credits	15.0-16.0
Term 5		Credits
COM 220	Introduction to Communication Research	3.0
COM 230	Techniques of Speaking	3.0
COM 240	New Technologies In Commununication	3.0
COM 260	Fundamentals of Journalism	3.0
	Science elective (See degree requirements)	3.0-4.0
	Social and Behavioral Sciences elective	3.0
	Term Credits	18.0-19.0
Term 6		Credits
COM 281	Advanced Public Relations	3.0
SOC 260	Classical Social Theory	3.0
•	Diversity studies elective	3.0
i	Humanities/Fine Arts elective	3.0
	Social and Behavioral Sciences elective	3.0
	Term Credits	15.0
Term 7		Credits
		3.0
SOC 250	Research Methods I	3.0
COM 282 SOC 250	Public Relations Writing Research Methods I	3.0
•		

	Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher)	3.0
•	Diversity studies elective	3.0
i	International studies elective Term Credits	3.0 <i>15.0</i>
	Term Credits	15.0
Term 8		Credits
ORGB 300	Organizational Behavior	4.0
PHIL 305	Communication Ethics	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
LING 102 Or	Language and Society	3.0
LING 101	Introduction to Linguistics	3.0
•	Visual communications elective (See degree requirements for	3.0
•	list)	
	Term Credits	16.0
Term 9		Credits
MKTG 301	Introduction to Marketing Management	4.0
•	Communication elective (Any COM or LING course at 200-	
	level or higher)	3.0
	Free electives	6.0
	Humanities/Fine Arts elective	3.0
	Term Credits	16.0
Term 10		Credits
COM 380	Special Topics in Communication Theory	3.0
COM 400	Seminar in Communication	3.0
•	Communication elective (Any COM or LING course at 200-	3.0
i	level or higher)	
•	Free electives Term Credits	6.0 15.0
	Term Credits	15.0
Term 11		Credits
COM 491	Senior Project in Communication I	3.0
·	Communication elective (Any COM or LING course at 200-	3.0
•	level or higher)	
•	Free electives Term Credits	9.0 <i>15.0</i>
	Term Oreans	10.0
Term 12		Credits
COM 492	Senior Project in Communication II	3.0
	Communication elective (Any COM or LING course at 200-	3.0
	level or higher) Free electives	
•	Term Credits	8.0 14.0
	Tom Ground	14.0
	Total Credits (minimum)	182.0-186.0

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Communication: Corporate and Public Relations Concentration

Bachelor of Science Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General requirements

ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
or	,	
ANTH 110	The Human Past	
COM 150	Mass Media and Society	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
PSCI 100	Introduction to Political Science	4.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
UNIV 101	The Drexel Experience	2.0
	Economics elective	4.0
	Two History electives	6.0
	English elective	3.0
	Fine Arts elective	3.0
	Philosophy elective	3.0
BIO 102 BIO 104	owing Science sequences: Biology I: Cells and Tissues Biology II: Growth and Heredity	4.0 4.0
or		
CHEM 111	General Chemistry I	4.0
CHEM 112	General Chemistry II	4.0
or		
PHYS 103	General Physics I	4.0
PHYS 104	General Physics II	4.0
One of the follo	owing Math sequences:	
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
One English co	ourse from each of the following sets:	
ENGL 201	Renaissance to the Enlightenment	3.0
ENGL 201	Romanticism to Modernism	3.0
ENGL 203 WI	Post-Colonial Literature I:	3.0

Communication core requirements

	Culture electives (Any two courses with a SOC, ANTH or CJ rubric. At least one course must be at the 200-level or higher.)	6.0
	Communication electives (Any four courses with a COM or LING rubric at the 200-level or higher)	12.0
Additional Elec		
* Or other cour	ses as appropriate in COM or the College of Media Arts and	Design.
COM 340	Desktop Publishing	3.0
COM 335	Electronic Publishing	3.0
One of the follo	owing Visual Communication courses*:	3.0
or LING 102	Language and Society	
LING 101	Introduction to Linguistics	3.0
ORGB 300 WI	Organizational Behavior	4.0
MKTG 301	Introduction to Marketing Management	4.0
Other program	requirements	
COM 282	Public Relations Writing	3.0
COM 281	Advanced Public Relations	3.0
COM 280	Public Relations	3.0
Corporate and	Public Relations concentration requirements Fundamentals of Journalism	26.0 Credits
PHIL 305	Communication Etnics	3.0
COM 492	Senior Project in Communication II Communication Ethics	3.0
COM 491	Senior Project in Communication I	3.0
COM 491	Special Studies in Communications Theory	3.0
COM 240	New Technologies in Communication	3.0
COM 230	Techniques of Speaking	3.0
-	e Requirements	
300 364	Computer-Assisted Data Analysis I	3.0
SOC 364		3.0
SOC 250	Research Methods	3.0
Methods Seque	ence Qualitative Research Methods	2.0
300 200	Classical Social Theory	3.0
COM 400 SOC 260	Classical Social Theory	3.0
COM 210	Theory and Models of Communication Seminar in Communication	3.0
0014.040		
COM 101	Human Communication	3.0

Free electives

32.0 Credits or less



Global Journalism

About the Concentration

Global journalism provides students with the skills and theoretical perspective they need to practice journalism on an international stage. Journalism is an international business, and the range of potential jobs for graduates grows almost daily. An extension of the program's core curriculum, the concentration hones the student's ability to write and edit while at the same time exposing the student to new and evolving aspects of the field.

Communication: Global Journalism Concentration

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General requirements

ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
ANTH 110	The Human Past: An Introduction to Physical Anthropology and Prehistoric Archaeology	3.0
COM 150	Mass Media and Society	3.0
COM 345	Intercultural Communication	3.0
or ANTH 312	Approaches to Intercultural Behavior	
COM 360	International Communication	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
SOC 101	Introduction to Sociology	3.0
UNIV 101	The Drexel Experience	2.0
	Two Mathematics courses	6.0-8.0
	Two Science courses	6.0-8.0
	Foreign language courses*	8.0
	Three Humanities and Fine Arts electives	12.0
	Two Social and Behavioral Sciences electives	9.0
-	One International Studies elective	6.0
	One Studies in Diversity elective	6.0

^{*}At least one foreign language course must be at the 200-level.

Communication core requirements		36.0 Credits
Theory Sequ	ience	
COM 101	Human Communication	3.0
COM 210	Theory and Models of Communication	3.0
COM 400	Seminar in Communication	3.0
SOC 260	Classical Social Theory	3.0
Methods Sec	quence	
COM 220	Qualitative Research Methods	3.0
SOC 250	Research Methods	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
Additional C	ore Requirements	
COM 230	Techniques of Speaking	3.0
COM 240	New Technologies in Communication	3.0
COM 491	Senior Project in Communication I	3.0
COM 492	Senior Project in Communication II	3.0
PHIL 305	Communication Ethics	3.0

Global Journa	lism concentration requirements	27.0 Credits
COM 260 WI	Fundamentals of Journalism	3.0
COM 280	Public Relations	3.0
COM 300 WI	On-Line Journalism	3.0
COM 315	Advanced Journalism	3.0
COM 365	Journalists, the Courts, and the Law	3.0
COM 380	Special Studies in Communication Theory	3.0
COM 390 WI	Global Journalism	3.0
Other program	n requirements	
LING 101	Introduction to Linguistics	3.0
or		
LING 102	Language and Society	3.0
Select one cou	urse from the following list:	
PSCI 150	International Politics	4.0
BLAW 340	International Business Law	4.0
IAS 359	Culture and Values	3.0
COM 361	International Public Relations	3.0
SOC 340	Globalization	3.0
Additional Ele	ctives	
	Communication electives (Any four courses with a COM rubric at the 200-level or higher)	12.0
	Culture electives (Any two courses with a SOC, ANTH or CJ rubric. At least one course must be at the 200-level or higher.)	6.0
	Free electives	34.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BA Communication
5 YR UG Co-op Concentration /Global Journalism

Term 1 COM 101 ENGL 101 SOC 101 UNIV 101	Human Communication Expository Writing and Reading Introduction to Sociology The Drexel Experience Foreign language course Term Credits	Credits 3.0 3.0 3.0 1.0 4.0 14.0
Term 2 COM 150 ENGL 102 UNIV 101	Mass Media and Society Persuasive Writing and Reading The Drexel Experience Foreign language course Math elective Term Credits	Credits 3.0 3.0 1.0 4.0 3.0-4.0 14.0-15.0
Term 3 GOM 210 ENGL 103 ANTH 110 or ANTH 101	Theory and Models of Communication Analytical Writing and Reading The Human Past Introduction to Cultural Diversity Foreign language course Math elective Term Credits	3.0 3.0 3.0 3.0 4.0 3.0-4.0 16.0-17.0
Term 4 COM 220 LING 102 Or LING 101	Introduction to Communication Research Language and Society Introduction to Linguistics Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher) Humanities/Fine Arts elective Science elective (See degree requirements) Social and Behavioral Sciences elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
Term 5 COM 230 COM 240 COM 260 SOC 260	Techniques of Speaking New Technologies In Commununication Fundamentals of Journalism Classical Social Theory Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0-16.0
Term 6 COM 360 SOC 250 COM 345 Or ANTH 312	International Communication Research Methods I Intercultural Communication Approaches to Intercultural Behavior Communication elective (Any COM or LING course at 200-level or higher)	Credits 3.0 3.0 3.0 3.0 3.0

•	Humanities/Fine Arts elective International studies elective Term Credits	3.0 3.0 18.0
Term 7 COM 280 COM 300	Public Relations On-line Journalism	Credits 3.0 3.0
	Communication elective (Any COM or LING course at 200-level or higher)	3.0
	Diversity studies elective Social and Behavioral Sciences elective Term Credits	3.0 3.0 15.0
Term 8 SOC 364 BLAW 340	Computer-Assisted Data Analysis I International Business Law	Credits 3.0 4.0
or COM 361	International Public Relations	3.0
or SOC 340 or	Globalization	3.0
PSCI 150 or	International Politics	4.0
IAS 359	Culture & Values Communication elective (Any COM or LING course at 200-	3.0
	level or higher) Social and Behavioral Sciences elective	3.0 3.0
•	Term Credits	13.0
Term 9 COM 315	Advanced Journalism	Credits 3.0
•	Communication elective (Any COM or LING course at 200-level or higher)	3.0
	Free elective Humanities/Fine Arts elective	3.0 3.0
	International studies elective Term Credits	3.0 <i>15.0</i>
Term 10		Credits
COM 365 COM 380	Journalists, the Courts, and the Law Special Topics in Communication Theory	3.0 3.0
COM 390	Global Journalism	3.0
	Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher)	3.0
	Free elective Term Credits	3.0 <i>15.0</i>
Term 11		Credits
COM 400 COM 491	Seminar in Communication Senior Project in Communication I	3.0 3.0
PHIL 305	Communication Ethics	3.0
	Free electives Term Credits	6.0 <i>15.0</i>
Term 12	A 1	Credits
ANTH 410 COM 492	Cultural Theory Senior Project in Communication II	3.0 3.0
	Free electives	8.0
	Term Credits	14.0
	Total Credits (minimum)	182.0-185.0

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Technical and Science Communication

About the Concentration

In this concentration, students learn to communicate scientific and technical information to various audiences. The program combines courses that develop communication skills with courses that enhance understanding of science and technology.

Students in this concentration find work in a wide range of areas, including providing written documentation for software or hardware products, developing materials for the Web, writing proposals, researching and composing materials to accompany pharmaceutical submissions to the FDA, and writing in the fields of general medicine or science.

Communication: Technical and Science Communication Concentration

Bachelor of Science Degree: 182.0 credits

Communication core requirements

Theory Sequence

Degree requirements (incoming students, 2009/2010)

General requirements		65.0 Credits
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
or	,	
ANTH 110	The Human Past	
COM 150	Mass Media and Society	3.0
CS 161	Introduction to Computing	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
PSCI 100	Introduction to Political Science	4.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
UNIV 101	The Drexel Experience	2.0
	Economics elective	4.0
	Two History electives	6.0
_	English elective	3.0
	Fine Arts elective	3.0
	Philosophy elective	3.0
One of the fol	lowing Science sequences:	
BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	4.0
or		
CHEM 111	General Chemistry I	4.0
CHEM 112	General Chemistry II	4.0
Or DUVC 402	Canaval Physica I	4.0
PHYS 103 PHYS 104	General Physics I General Physics II	4.0 4.0
11113 104	General i hysics ii	4.0
One of the fol	lowing Math sequences:	
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0

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36.0

Credits

COM 101	Human Communication	3.0
COM 210	Theory and Models of Communication	3.0
COM 400	Seminar in Communication	3.0
SOC 260	Classical Social Theory	3.0
Methods Seque		
COM 220	Qualitative Research Methods	3.0
SOC 250	Research Methods	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
Additional Cor	e Requirements	
COM 230	Techniques of Speaking	3.0
COM 240	New Technologies in Communication	3.0
COM 491	Senior Project in Communication I	3.0
COM 492	Senior Project in Communication II	3.0
PHIL 305	Communication Ethics	3.0
Technical and	Science concentration requirements	30.0 Credits
COM 310 WI	Technical Communication	3.0
COM 320 WI	Science Writing	3.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0
COM 350 WI	Message Design and Evaluation	3.0
COM 380	Special Studies in Communication Theory	3.0
COM 420	Technical Editing	3.0
Other program	•	
HIST 280	History of Science I	3.0
or HIST 281	History of Science II	
or	riistory of colonice ii	
HIST 285	Technology in Historical Perspective	
LING 101	Introduction to Linguistics	3.0
or	Language and Cociety	
LING 102 ENGL 300 WI	Language and Society	2.0
or	Literature and Science	3.0
ENGL 302	Literature and the Environment	
or		
PHIL 361	Philosophy of Science	
PSY 330	Cognitive Psychology	3.0
or PSY 337	The Psychology of Human-Computer Interaction	3.0
Additional Elec		
	Communication electives (Any four courses with a COM rubric at the 200-level or higher)	12.0
	Culture electives (Any two courses with a SOC, ANTH, or CJ rubric. At least one course must be at the 200-level or	6.0
	higher.)	
	Free electives	30.0

Writing-Intensive Course Requirements
In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline.

Recommended Plan Of Study

BS Communication
5 YR UG Co-op Concentration /Tech & Science Communication

Term 1 COM 101 ENGL 101 SOC 101 UNIV 101 MATH 121 or MATH 101	Human Communication Expository Writing and Reading Introduction to Sociology The Drexel Experience Calculus I Introduction to Math Analysis I Term Credits	3.0 3.0 3.0 1.0 4.0 4.0
Term 2 COM 150 ENGL 102 PSY 101 UNIV 101 MATH 122 or MATH 102	Mass Media and Society Persuasive Writing and Reading General Psychology I The Drexel Experience Calculus II Introduction to Math Analysis II Term Credits	Credits 3.0 3.0 3.0 1.0 4.0 4.0
Term 3 CS 161 ENGL 103 PSCI 100 ANTH 110 Or ANTH 101	Introduction to Computing Analytical Writing and Reading Introduction to Political Science Human Past: Anthropology and Prehistoric Archeology Introduction to Cultural Diversity Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher) Term Credits	3.0 3.0 4.0 3.0 3.0 3.0
Term 4 COM 220 BIO 102 Or PHYS 103 Or CHEM 111	Introduction to Communication Research Biology I: Cells and Tissues General Physics I General Chemistry I Communication elective (Any COM or LING course at 200-level or higher) History elective Philosophy (PHIL) elective Term Credits	4.0 4.0 4.0 3.0 3.0 3.0 16.0
Term 5 COM 230 COM 240 SOC 260 ENGL 300 Or ENGL 302 Or PHIL 361 BIO 104	Techniques of Speaking New Technologies In Commununication Classical Social Theory Literature & Science Environmental Literature Philosophy of Science Biology II: Growth and Heredity	Credits 3.0 3.0 3.0 3.0 3.0 3.0 4.0

or		
CHEM 112 or	General Chemistry II	4.0
PHYS 104	General Physics II Term Credits	4.0 16.0
Term 6		Credits
COM 335	Electronic Publishing	3.0
	Culture elective (Any course with SOC, ANTH or CJ rubric: at least 1 must be 200-level or higher)	3.0
	Economics (ECON) elective Fine arts elective	4.0 3.0
•	Literature (ENGL) elective	3.0
•	Term Credits	16.0
Term 7		Credits
COM 320 COM 340	Science Writing Desktop Publishing	3.0 3.0
	Communication elective (Any COM or LING course at 200-	
	level or higher) Free electives	3.0 6.0
•	Term Credits	15.0
Term 8		Credits
COM 210	Theory and Models of Communication	3.0
COM 310 SOC 250	Technical Communication Research Methods I	3.0 3.0
HIST 280	History of Science I	3.0
Or HIST 281	History of Science II	3.0
or	History of Science II	3.0
HIST 285 LING 101	Technology in Historical Perspective Introduction to Linguistics	3.0 3.0
or	•	3.0
<u>LING 102</u>	Language and Society Term Credits	3.0 15.0
Term 9		Credits
COM 350	Message Design and Evaluation	3.0
COM 420 SOC 364	Technical Editing Computer-Assisted Data Analysis I	3.0 3.0
	Free elective	3.0
•	History (HIST) elective Term Credits	3.0 <i>15.0</i>
_		
Term 10 COM 380	Special Topics in Communication Theory	Credits 3.0
PSY 337	The Psychology of Human-Computer Interaction	3.0
or <u>PSY 330</u>	Cognitive Psychology	3.0
•	Communication elective (Any COM or LING course at 200-	3.0
•	level or higher) Free electives	6.0
•	Term Credits	15.0
Term 11		Credits
COM 400 COM 491	Seminar in Communication	3.0
PHIL 305	Senior Project in Communication I Communication Ethics	3.0 3.0
•	Communication elective (Any COM or LING course at 200-	3.0
•	level or higher) Free elective	3.0
•	Term Credits	15.0
Term 12		Credits
COM 492	Senior Project in Communication II	3.0

Free electives Term Credits	12.0 15.0
Total Credits (minimum)	182.0

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Minor in Communication

Core courses

The minor in communication is a 24-credit curriculum designed to familiarize students with communication theory while providing training in print and electronic communication skills. The minor can provide a strong complement for majors that emphasize presentations, interpersonal skills, publicity, and marketing. Students minoring in communication can focus on Corporate and Public Relations, Journalism, or Technical and Science Communication.

First, three core courses in Communication Studies are required for the minor. Second, students focus on one of the following areas: Journalism or Corporate and Public Relations or Technical and Science Communication. Finally, students complete three additional electives from the Communication curriculum that fit their interest.

Core courses		
COM 101	Human Communication	3.0
or		
COM 111	Principles of Communication	
COM 210	Theories of Communication	3.0
COM 380	Special Topics in Communication	3.0
Journalism fo	cus	
COM 260 WI	Fundamentals of Journalism	3.0
And one of the	e following courses:	
COM 300 WI	On-Line Journalism	3.0
COM 315	Advanced Journalism	
COM 390 WI	Global Journalism	
COM 280	Public Relations focus Public Relations	3.0
COM 270 WI	Business Communication	3.0
or	Business Communication	3.0
COM 281	Advanced Public Relations	
Technical and	Science Communication focus	
COM 310 WI	Technical Communication	3.0
COM 320 WI	Science Writing	3.0
or		
COM 375 WI	Grant Writing	
Three Addition	nal Courses	
	Three Communication (COM) or Linguistics (LING) electives	9.0



Criminal Justice

Issues of crime and justice affect every individual at some point in their lives if only as tax- paying citizens and voters. Criminal Justice legislation, policy and decision-making and matters of community safety and well being require well-educated professionals to administer, legislate, communicate, and implement the work of the Criminal Justice System. Students in Drexel's Criminal Justice program will be well prepared to assume these roles and responsibilities.

About the Curriculum

On completion of the Bachelor's degree, the required course provide the essential foundation for mid-level employment in the field of criminal justice or for further study in various areas of criminal justice and the law. Students will acquire theoretical and methodological skills as well as courses in written and oral communication so necessary for professional careers in this field. The students in Drexel's Criminal Justice program will also have a robust foundation in statistics, and computer applications. Additional required courses focus on the areas of forensic sciences, law and political and social sciences.

Program Goals

The goals for the criminal justice program include the following:

- To provide excellent, cutting edge preparation for students planning to enter graduate study of criminal justice, law and law-related programs.
- To prepare students for upper level employment in the criminal justice system at local, state and federal levels.
- To communicate an understanding of crime, criminal behavior and the criminal justice system essential for aware citizens, as voters, taxpayers, planners and decision-makers.

For additional information about the BS in Criminal Justice, visit the College's Programs in Criminal Justice web page.

Criminal Justice

Bachelor of Science Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General requi	irements	55.0 Credits
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
COM 150	Mass Media and Society	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
PHIL 101	Introduction to Western Philosophy	3.0
PSCI 100	Introduction to Political Science	4.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
UNIV 101	The Drexel Experience	2.0
	Fine Arts elective	3.0
	History elective	3.0
	Literature elective (any ENGL course over 200-level)	3.0
	llowing math sequences:	10
MATH 101 MATH 102	Introduction to Analysis I Introduction to Analysis II	4.0 4.0
or	introduction to Analysis ii	4.0
MATH 121	Calculus I	4.0
MATH 121	Calculus II	4.0
One of the fol BIO 102 BIO 104	llowing science sequences: Biology I: Cells and Tissues Biology II: Growth and Heredity	4.0 4.0
or		
CHEM 111 CHEM 112	General Chemistry I General Chemistry II	4.0 4.0
	ice Core Requirements	58.0 - 64.0 Credits
BLAW 342	Criminal Law	4.0
CJ 204	Criminal Law	3.0
CJ 204 CJ 206	Criminology Criminal Justice	3.0
CJ 206 CJ 276	Computer Crime	3.0
CJ 277	Correctional Practices	3.0
CJ 277	Law Enforcement	3.0
CJ 278	Juvenile Justice	
CJ 360 CJ 374	Restorative Justice	3.0
CJ 375	Criminal Procedure	3.0

CJ 376	Sentencing and Punishment	3.0
CJ 390	Internship in Criminal Justice	0.0 - 6.0
PHIL 330	Ethical Issues in Criminal Justice	3.0
Writing/Com	munication Company	
COM 230	munication Sequence	3.0
	Techniques of Speaking	
COM 375 WI	Grant Writing	3.0
Theory Sequ		
SOC 260	Classical Social Theory	3.0
SOC 460 WI	Contemporary Social Theory	3.0
PSCI 329	Theories of Justice	3.0
Methods Seq	uence	
COM 220	Introduction to Communications Research	3.0
SOC 250	Research Methods I	3.0
SOC 364	Data Analysis I	3.0
		24.0-
Criminal Just	tice Specialization Courses	25.0 Credits
04	and allowed the fall and an account	
Students sele	ect eight of the following courses:	
_		
Forensics		
CJ 265	Criminal Investigation	3.0
CJ 378	Study of Forensic Science	3.0
CJ 379	Forensic DNA Analysis	3.0
PSY 370	Forensic Psychology	3.0
Cybercrime	Compaillence Technology and the Law	2.0
CJ 273	Surveillance, Technology and the Law	3.0
CJ 274	Sex, Violence, and Crime on the Internet	3.0
CJ 377	Intellectual Property Theft in the Digital Age	3.0
Crime and Pr CJ 266		2.0
CJ 266 CJ 267	Crime Prevention Planning Introduction to Security Studies	3.0
CJ 207 CJ 275	Issues in Domestic Violence	3.0
CJ 273 CJ 280	Communities and Crime	3.0
CJ 289	Terrorism	3.0
CJ 372	Death Penalty	3.0
CJ 373	Environmental Crimes	3.0
BLAW 348	White Collar Crime	4.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
PSCI 365	Politics, Law & Justice	3.0
		15.0
Other Social	Science Electives	Credits
	ect four of the following courses:	
SOC 115	Social Problems	3.0
SOC 120	Sociology of the Family	3.0

SOC 220	Wealth and Power	3.0
SOC 240	Urban Sociology	3.0
SOC 320	Sociology of Deviance	3.0
CJ 380	Special Topics in Criminal Justice	3.0
CJ 399	Independent Study in Criminal Justice	3.0
SOC 380	Special Topics in Sociology	3.0
PSCI 363	Constitutional Law II	3.0

Students select one of the following courses:

ANTH 312	Approaches to Intercultural Behavior	3.0
COM 345	Intercultural Communication	3.0
SOC 210	Race and Ethnicity	3.0

Electives	23.0- 29.0 Credits
Free electives	23.0 - 29.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BS Criminal Justice 4 YR UG No Co-op Concentration

Term 1 CJ 206 ENGL 101 SOC 101 UNIV 101 CHEM 101 Or BIO 102	Criminal Justice Expository Writing and Reading Introduction to Sociology The Drexel Experience General Chemistry I Biology I: Cells and Tissues Term Credits	Credits 3.0 3.0 3.0 1.0 4.0 4.0
Term 2 COM 150 ENGL 102 SOC 115 UNIV 101 CHEM 102 Or BIO 104	Mass Media and Society Persuasive Writing and Reading Social Problems The Drexel Experience General Chemistry II Biology II: Growth and Heredity Term Credits	Credits 3.0 3.0 3.0 1.0 4.0
Term 3 ANTH 101 CJ 204 ENGL 103 PSCI 100 SOC 260	Introduction to Cultural Diversity Criminology Analytical Writing and Reading Introduction to Political Science Classical Social Theory Term Credits	Credits 3.0 3.0 3.0 4.0 3.0 16.0
Term 4 CJ 277 COM 220	Introduction to Correctional Practices Qualitative Research Methods Criminal Justice specialization course (See degree requirements for list) History elective Term Credits	Credits 3.0 3.0 3.0 3.0 12.0
Term 5 CJ 278 CJ 360 COM 230 SOC 250 MATH 121 Or MATH 101	Introduction to Law Enforcement Juvenile Justice Techniques of Speaking Research Methods I Calculus I Introduction to Math Analysis Term Credits	Credits 3.0 3.0 3.0 3.0 4.0 4.0
Term 6 CJ 276 PHIL 101 SOC 364 MATH 122 Or MATH 102	Introduction to Computer Crime Introduction to Western Philosophy Computer-Assisted Data Analysis Calculus II Introduction to Math Analysis	Credits 3.0 3.0 3.0 4.0
•	English (ENGL) course 200-level or above	3.0

•	Social science course (See degree requirements) Term Credits	3.0 19.0
Term 7 CJ 375 CJ 390 COM 375	Criminal Procedure Internships in Criminal Justice Grant Writing Free elective Fine arts elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0
Term 8 CJ 374 PSCI 329 PSY 101 SOC 320	Restorative Justice Theories of Justice General Psychology I Sociology of Deviant Behavior Social science course (See degree requirements) Term Credits	3.0 3.0 3.0 3.0 3.0 3.0
Term 9 SOC 460 ANTH 312 or SOC 210	Contemporary Social Theory Approaches to Intercultural Behavior Race and Ethnic Relations	Credits 3.0 3.0 3.0
Or COM 345	Intercultural Communication Criminal Justice specialization courses (See degree requirements for list) Free elective Term Credits	3.0 6.0 3.0 15.0
Term 10 BLAW 342 CJ 376 PHIL 330	Criminal Law Sentencing: The History, Necessity and Morality of Punishment in America Ethical Issues in Criminal Justice Free elective Term Credits	Credits 4.0 3.0 3.0 4.0 14.0
Term 11	Criminal Justice specialization courses (See degree requirements for list) Free electives Term Credits	9.0 7.0 16.0
Term 12	Criminal Justice specialization courses (See degree requirements for list) Free electives Term Credits Total Credits (minimum)	Credits 6.0 10.0 16.0 182.0

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Minor in Computer Crime

24.0 credits

Computers have created new opportunities for crime and have affected the requisite capacity to commit criminal acts. The minor in computer crime provides students with an overview of the behavioral, legal, technical, and administrative issues faced by the criminal justice system and security communities in addressing crime involving computers and related networking technologies. The curriculum exposes students to state-of-the-art solutions used within the public and private sectors to respond to and prevent computer crime.

Required courses

CJ 204	Criminology	3.0
CJ 206	Criminal Justice	3.0
CJ 274	Sex, Violence & Crime on the Internet	3.0
CJ 276	Computer Crime	3.0
CJ 365	Computer Investigations and the Law	3.0
CJ 377	Intellectual Property Theft	3.0

Additional Elective Courses		6.0 Credits
Students se	elect two courses from the following list:	
CJ 265	Criminal Investigation	3.0
CJ 266	Crime Prevention Planning	3.0
CJ 267	Introduction to Security Studies	3.0
CJ 273	Surveillance, Technology and the Law	3.0
CJ 375	Criminal Procedure	3.0
CJ 380	Special Topics in Criminal Justice	3.0



Minor in Criminal Justice

Students from any major who are interested in the law, legal issues and the forensic sciences may envision a future connection with the criminal justice system. These students could enhance their career possibilities by adding a minor in criminal justice to their major field of study.

The minor consists of four required courses and four criminal justice electives chosen from two categories, for a total of 24.0 credits. Students minoring in criminal justice are assumed to have already taken SOC 101, Introduction to Sociology.

Required courses

CJ 204	Criminology	3.0
CJ 206	Criminal Justice	3.0
CJ 360	Juvenile Justice	3.0
SOC 320	Deviant Behavior	3.0

Criminal Justice Elective Courses

Students select courses from the following two categories of criminal justice electives.

Category I: Students select at least one, but no more than two, courses from the following:

SOC 210	Race and Ethnic Relations	3.0
COM 345	Intercultural Communication	3.0
or		
ANTH 312	Intercultural Behavior	3.0

Category II: Students select two to three courses from the following list to arrive at a minimum* of 24 .0 credits in total for the minor:

COM 355	Ethnography of Communication	3.0
COM 365	Journalists, the Courts, and the Law	3.0
CJ 380	Special Topics in Criminal Justice	3.0
SOC 115	Social Problems	3.0
SOC 120	Sociology of the Family	3.0
PSCI 365	Politics, Law, and Justice	3.0
PSY 150	Introduction to Social Psychology	3.0
PSY 240	Abnormal Psychology	3.0
PSY 370	Forensic Psychology	3.0

Minor in Paralegal Studies

24.0 credits (minimum)

The minor in paralegal studies provides instruction in legal research and writing, a background in the structure of the courts and government agencies, as well as additional preparation for the paralegal profession.

The minor consists of four required courses and four electives. While most employers do not require certification, students completing the program can sit for the two-day National Association of Legal Assistants (NALA) examination. Those passing this examination are entitled to use the certified Legal Assistant (CLA) designation.

Required courses		12.0
BLAW 201	Business Law I	4.0
CJ 381	Legal Research and Writing I	3.0
CJ 382	Legal Research and Writing II	3.0
CJ 276	Computer Crime	3.0

Additional Elective Courses		12.0- 14.0 Credits
Students sele	ect four courses from the following list:	
BLAW 202	Business Law II	4.0
BLAW 330	Real Estate (pre-req BLAW 202)	4.0
CJ 274	Sex, Violence & Crime on the Internet	3.0
CJ 377	Intellectual Property Theft	3.0
COM 345	Intercultural Communication	3.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
DSV 370	Forensic Psychology	3.0

English

Specifically designed to engage students in critical thinking and applied writing skills, the English major offers a wide-ranging curriculum on British, American and World literatures and stresses the cultural, historical and political contexts that shape and affect literary production. The Department of English and Philosophy also offers variety of courses on periods and genres; creative writing; and the relationship between literature and the visual arts, science and technology.

English

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

University requirements		23.0 - 27.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Two mathematics courses	6.0-8.0
	Two science courses	6.0-8.0

*ENGL 101 and ENGL 102 may be replaced by ENGL 105 if the student qualifies; ENGL 103 may be replaced by any other ENGL course if the grade for ENGL 105 is "A."

College requirements*		44.0 - 45.0 Credits	
Foreign langua	ge courses		
	Any two (2) consecutive foreign language courses (completing level 201)	8.0	
Humanities and	I fine arts: four (4) of the following courses		
ARTH 101	History of Art I: Ancient to Medieval	3.0	
ARTH 102	History of Art II: Renaissance to Modern	3.0	
ARTH 103	History of Art III: Early Modern to Postmodernism	3.0	
DANC 201	Dance Appreciation	3.0	
DANC 210	Introduction to Dance	3.0	
DANC 220	History of Dance	3.0	
DANC 325	20th-Century Dance History	3.0	
FMST 150	American Classic Cinema	3.0	
FMVD 230	Basic Filmmaking	3.0	
FMST 250	The Documentary Tradition	3.0	
FMST 355	Contemporary Cinema	3.0	
HIST 161	Themes in World Civilization I	3.0	
HIST 162	Themes in World Civilization II	3.0	
HIST 163	Themes in World Civilization III	3.0	
MUSC 130	Introduction to Music	3.0	
MUSC 231 WI	Music History I	3.0	
MUSC 232	Music History II	3.0	
MUSC 236	Rock Music Through the Mid-60s	3.0	
MUSC 238	Rock Music Since the Mid-60s	3.0	
PHIL 101	Introduction to Western Philosophy	3.0	
PHIL 105	Critical Reasoning	3.0	
PHIL 121	History of Ideas	3.0	
PHIL 211	Metaphysics	3.0	

PHIL 221	Epistemology	3.0
PHIL 231	Aesthetics	3.0
PHIL 251	Ethics	3.0
PHTO 110	Basic Photography	3.0
PHTO 115	Principles of Photography	3.0
THTR 115	Theatrical Experience	3.0
THTR 221	Theatre History I	3.0
THTR 222	Theatre History II	3.0
111111111111111111111111111111111111111	mount motory ii	0.0
Social and beh	avioral sciences: four (4) of the following courses	
ANTH 110	The Human Past: An Introduction to Physical Anthropology and Prehistoric Archaeology	3.0
ANTH 210	Worldview: Science, Religion, Magic	3.0
COM 150	Mass Media and Society	3.0
COM 230	Techniques of Speaking	3.0
PSCI 100	Introduction to Political Science	4.0
PSCI 120	History of Political Thought	4.0
PSY 101	General Psychology	3.0
PSY 120	Developmental Psychology	3.0
PSY 140	Approaches to Personality	3.0
SOC 101	Introduction to Sociology	3.0
SOC 115	Social Problems	3.0
SOC 120	Sociology of the Family	3.0
International S	tudies : two (2) of the following courses:	
ANTH 212	Topics in World Ethnography	3.0
ANTH 312	Approaches to Intercultural Behavior	3.0
COM 360	International Communication	3.0
COM 361	International Public Relations	3.0
COM 362	International Negotiations	3.0
FMST 160	European Cinema	3.0
FMST 245	Non-Western Cinema	3.0
HIST 209	The US and Central America	3.0
HIST 235	The Great War, 1914-1918	3.0
HIST 236	World War II	3.0
HIST 259	History of Europe, 20th Century	3.0
HIST 270	Introduction to Latin American History	3.0
MUSC 331	World Musics	3.0
PHIL 335	Global Ethical Issues	3.0
PSCI 150	International Politics	4.0
SOC 340	Globalization	2.0
	ersity: two (2) of the following courses Intellectual/Cultural Foundations of the African-	
AFAS 101	American Experience	3.0
AFAS 201	African-American Aesthetics	
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
ANTH 215	Anthropology of Gender	3.0
COM 345	Intercultural Communication	3.0
ENGL 345	American Ethnic Literature	3.0
ENGL 350	Jewish Literature and Civilization	3.0
ENGL 355 WI	Women and Literature	3.0
ENGL 365 WI	Topics in African American Literature	3.0
HIST 212	Themes in African-American History	3.0
HIST 214	The Civil Rights Movement in the US	3.0
HIST 215	American Slavery	3.0

Freedom in America	3.0
Race and Film in US History	3.0
Women and Work in America	3.0
Women in American History	3.0
Modern Jewish History	3.0
Jewish Literature and Civilization	3.0
Jewish Life and Culture in the Middle Ages	3.0
Modern Jewish History	3.0
Afro-American Music USA	3.0
Race and Ethnic Relations	3.0
Developing Nations and the International Division of Labor	3.0
Introduction to Women's Studies	3.0
Women and Society in a Global Context	3.0
African American Herstories	3.0
ents nd professional courses	84.0 Credits
ring:	
American Literature I	3.0
American Literature II	3.0
British Literature I	3.0
British Literature II	3.0
Shakespeare	3.0
Seminar in English/American Literature	4.0
Seminar in World Literature	4.0
Senior Project in English	4.0
Philosophy in Literature	3.0
following Classical to Medieval Literature	3.0
Renaissance to the Enlightenment	3.0
Romanticism to Modernism	3.0
Post-Colonial Literature I: Africa/Asia/Caribbean/Japan/Middle East	3.0
Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
African American Literature	3.0
Readings in Fiction	3.0
Readings in Poetry	3.0
Readings in Drama	3.0
following	
Period Studies	3.0
Period Studies	3.0 3.0
Period Studies Major Authors	3.0
Period Studies Major Authors Topics in World Literature	3.0 3.0
Period Studies Major Authors	3.0
	Race and Film in US History Women and Work in America Women in American History Jewish Literature and Civilization Jewish Life and Culture in the Middle Ages Modern Jewish History Afro-American Music USA Race and Ethnic Relations Developing Nations and the International Division of Labor Introduction to Women's Studies Women and Society in a Global Context African American Herstories ents and professional courses fing: American Literature I British Literature II British Literature II British Literature II Shakespeare Seminar in English/American Literature Seminar in World Literature Senior Project in English Philosophy in Literature Renaissance to the Enlightenment Romanticism to Modernism Post-Colonial Literature I: Africa/Asia/Caribbean/Japan/Middle East African American Literature Readings in Fiction Readings in Poetry

Three (3) of the following electives

The Mystery Story

ENGL 305 WI

3.0

ENGL 306	Literature of Baseball	3.0
ENGL 307	Literature of the Holocausts	3.0
ENGL 323	Literature and the Other Arts	3.0
ENGL 345	American Ethnic Literature	3.0
ENGL 350	Jewish Literature and Civilization	3.0
ENGL 355 WI	Women and Literature	3.0
ENGL 360	Literature and Society	3.0
ENGL 365	Topics in African American Literature	3.0
ENGL 395 WI	Special Studies in Literature	3.0
ENGL 399	Independent Study in English	3.0

Creative and Professional Writing

WRIT 303

SCRP 270

15.0 Credits

3.0

3.0

Students select five (5) courses total. At least two of the courses must be chosen from the first portion of the list (the first 11 courses):

WRIT 306	Writing About the Media	3.0
WRIT 310 WI	Literary Editing and Publication	3.0
WRIT 312 WI	The Practice of Professional Writing	3.0
WRIT 400	Writing in Cyberspace	4.0
WRIT 405	Internship in Literary Publishing	2.0
COM 260	Fundamentals of Journalism	3.0
COM 300	On-line Journalism	3.0
COM 310 WI	Technical Communication	3.0
COM 315	Advanced Journalism	3.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0
WRIT 210	Writing/Peer Tutor Workshop	3.0
WRIT 220	Creative Non-Fiction	3.0
WRIT 225	Creative Writing	3.0
WRIT 301 WI	Writing Poetry	3.0
WRIT 302	Writing Fiction	3.0

SCRP 275 WI	Screenwriting II	3.0
Science and Te	echnology in the Humanities	12.0 Credits

Writing Humor and Comedy

Screenwriting I

Four (4) of the following				
ENGL 300 WI	Literature and Science	3.0		
ENGL 302	Literature and the Environment	3.0		
ENGL 303	Science Fiction	3.0		
ENGL 370	Topics in Literature and Medicine	3.0		
HIST 280	History of Science I	3.0		
HIST 281	History of Science II	3.0		
HIST 285	Technology in Historical Perspective	3.0		
HIST 294	Technology in American Life	3.0		
PHIL 311	Computer Ethics	3.0		
PHIL 315	Engineering Ethics	3.0		
PHIL 341	Philosophy of the Environment	3.0		
PHIL 345	Philosophy of Medicine	3.0		
PHIL 351	Philosophy of Technology	3.0		
PHIL 361	Philosophy of Science	3.0		

Free electives 24.0 - 28.0 Credits

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BA English 5 YR UG Co-op Concentration

Term 1		Credits
ENGL 101	Expository Writing and Reading	3.0
<u>HIST 161</u>	Themes in World Civilization I	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Foreign language course (1st consecutive course)	4.0
	Math elective	4.0
	Term Credits	15.0
Term 2		Credits
ENGL 102	Persuasive Writing and Reading	3.0
HIST 162	Themes in World Civilization II	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Foreign language course (2nd consecutive course, 201-level)	4.0
	Math elective	4.0
	Term Credits	15.0
Term 3		Credits
ANTH 101	Introduction to Cultural Diversity	3.0
ENGL 103	Analytical Writing and Reading	3.0
MUSC 130	Introduction to Music	3.0
PHIL 101	Introduction to Western Philosophy	3.0
PSY 101	General Psychology I	3.0
,	Term Credits	15.0
Term 4		Credits
ENGL 205	American Literature I	3.0
ENGL 211	British Literature I	3.0
PHIL 105	Critical Reasoning	3.0
•	Lab Science elective	3.0
•	Social and Behavioral Sciences elective	3.0-4.0
•	Term Credits	15.0-16.0
Term 5		Credits
ENGL 206	American Literature II	3.0
ENGL 212	British Literature II	3.0
•	Diversity studies elective	3.0
•	International studies elective	3.0
-	Lab Science elective	3.0
•	Term Credits	15.0
Term 6		Credits
COM 260	Fundamentals of Journalism	3.0
ENGL 202	Romanticism to Modernism	3.0
ENGL 203	Post-Colonial Literature I	3.0
SOC 210	Race and Ethnic Relations	3.0
WMST 101	Introduction to Women's Studies	3.0
•	Term Credits	15.0
Term 7		Credits
COM 300	Computer-Assisted Journalism	3.0
ENGL 207	African American Literature	3.0
ENGL 216	Readings in Drama	3.0
PHIL 381	Philosophy in Literature	3.0
•		

	Science, Technology and Human Affairs elective (Any HIST course 281-294)	3.0
•	Term Credits	15.0
Term 8		Credits
COM 340	Desktop Publishing	3.0
ENGL 315	Shakespeare	3.0
WRIT 220	Creative Nonfiction Writing	3.0
•	Free electives	6.0
	Term Credits	15.0
Term 9		Credits
WRIT 310	Literary Editing and Publishin	3.0
	English major foundational courses (See degree requirements)	6.0
	Free electives	6.0
	Term Credits	15.0
Term 10		Credits
ENGL 300	Literature and Science	3.0
ENGL 323	Literature and Other Arts	3.0
ENGL 360	Literature and Society	3.0
i	Free electives	6.0
	Term Credits	15.0
Term 11		Credits
HIST 281	History of Science II	3.0
PHIL 361	Philosophy of Science	3.0
ENGL 492 Or	Seminar in World Literature	4.0
ENGL 490	Seminar in English/American Literature	4.0
	Free electives	6.0
•	Term Credits	16.0
Term 12		Credits
ENGL 499	Senior Project in English	4.0
WRIT 312	The Practice of Professional Writing	3.0
•	Free electives	9.0
	Term Credits	16.0
	Total Credits (minimum)	182.0-183.0

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Minor in English

The English minor provides students from other majors with a more intensive background in literature. Coursework in the minor exposes students to literature from a variety of periods, cultures and genres and also provides practice in critical thinking, literary analysis and writing. These courses enrich students' intellectual lives and provide them with skills that are valuable in a variety of professional situations.

Students complete 24.0 credits (8 courses), distributed as follows:

Requirements		24.0
Students selec	t three (3) of the following courses:	9.0
ENGL 200 WI	Classical to Medieval Literature	3.0
ENGL 201	Renaissance to the Enlightenment	3.0
ENGL 202 WI	Romanticism to Modernism	3.0
ENGL 203 WI	Post-Colonial Literature I	3.0
ENGL 204	Post-Colonial Literature II	3.0
ENGL 205 WI	American Literature I	3,0
ENGL 206 WI	American Literature II	3.0
ENGL 207 WI	African American Literature	3.0
ENGL 211 WI	British Literature I	3.0
ENGL 212	British Literature II	3.0
ENGL 214	Readings in Fiction	3.0
ENGL 215 WI	Readings in Poetry	3.0
ENGL 216 WI	Readings in Drama	3.0
Students selec	et two (2) of the following courses:	6.0
WRIT 220	Creative Non-Fiction Writing	3.0
WRIT 225	Creative Writing	3.0
WRIT 301 WI	Writing Poetry	3.0
WRIT 302	Writing Fiction	3.0
WRIT 303	Writing Humor and Comedy	3.0
WRIT 304	Special Topics: (Humor, Autobiography, Writing about the Media)	3.0
WRIT 306	Writing about the Media	3.0
WRIT 310	Literary Editing and Publishing	3.0
WRIT 312	Practice of Professional Writing	3.0
WRIT 400	Writing in Cyberspace	4.0
WRIT 405	Internship in Publishing	2.0
Students selec	t three (3) of the following courses:	9.0
ENGL 300 WI	Literature and Science	3.0
ENGL 302	Environmental Literature	3.0
ENGL 303	Science Fiction	3.0
ENGL 305	The Mystery Story	3.0
ENGL 306	Literature of Baseball	3.0

ENGL 307	Literature of the Holocausts	3.0
ENGL 310 WI	Period Studies	3.0
ENGL 315 WI	Shakespeare	3.0
ENGL 320 WI	Major Authors	3.0
ENGL 325	Topics in World Literature	3.0
ENGL 330	The Bible as Literature	3.0
ENGL 335	Mythology	3.0
ENGL 345	American Ethnic Literature	3.0
ENGL 350	Jewish Literature and Civilization	3.0
ENGL 355 WI	Women and Literature	3.0
ENGL 360	Literature and Society	3.0
ENGL 365	Topics in African American Literature	3.0
ENGL 370	Topics in Literature and Medicine	3.0
ENGL 395	Special Studies in Literature	3.0

NOTE: Where a course required for the minor is already required for a student's major, the student is directed to choose another English elective. Other substitutions are permissible at the discretion of the Program Director.

Certificate in Writing and Publishing

About the Program

The Certificate in Writing and Publishing (CWP) offers the opportunity for both professional and personal development through a combination of available courses in professional writing, creative writing and publishing. The certificate will enhance employment opportunities, opening a broad range of professional choices in cooperative employment and in the post-degree job market as skills are acquired. The CWP will improve on-the-job performance as the student develops writing skills and associated professional knowledge.

The program develops core competencies through the synergy of writing and publishing courses. The courses develop the student's skills in writing and publishing both through theory and practical application.

The program has three tracks, each of which leads to a certificate:

- The Certificate in Professional Writing and Publishing
- The Certificate in Creative Writing and Publishing
- The Comprehensive Certificate in Writing and Publishing

Working with an advisor, students will choose not only the track but the courses within the track to develop an individually tailored program. Students can choose courses that will meet the general requirements of the program, while also satisfying their own professional and personal requirements.

Those students who have successfully completed this program will receive a Certificate in Writing and Publishing. The transcript will indicate the completion of the CWP. This certification will indicate proficiency in written communication and familiarity with techniques in publishing in a variety of venues. The Certificate Program in Writing and Publishing, highlights the student's acquisition of skills more than they would be in a list of courses on a transcript.

The completion of the certificate demonstrates the student's commitment to writing and publishing skills. It highlights writing skills of students majoring in business and technical areas; similarly, for students in the humanities and social sciences, it certifies writing and publishing skills, either in creative writing or professional writing.

For additional information, contact the program director:

Miriam N. Kotzin, PhD
Director, Certificate Program in Writing and Publishing
Department of English and Philosophy
Drexel University
Philadelphia, PA 19104
kotzinmn@drexel.edu
Tel: 215-895-2445

Tel: 215-895-2445 Fax: 215-895-1071

www.drexel.edu/coas/engphil



Certificate in Writing and Publishing

The Certificate in Writing and Publishing requires a minimum of eighteen credits. The program allows students to achieve certification in one or more of the following tracks:

- · Professional Writing and Publishing
- · Creative Writing and Publishing
- · Comprehensive Writing and Publishing

Each track requires the completion of a minimum of six courses (eighteen credits). Tracks can be designed to meet the professional needs and personal interests of the individual student. The director of the program, Dr. Miriam N. Kotzin, will advise the student on selection of a track.

The Professional Writing and Publishing Track offers three options: Business Communication and Publishing; Technical Communication and Publishing; and Journalism. This track is useful for business majors or students in technical or science areas who want to highlight their acquisition of writing skills. For students majoring in the humanities it provides an opportunity to develop areas of writing and publishing competencies in the professional arena. The Creative Writing and Publishing Track, is useful to all students as it encourages personal and professional development through creative writing and a knowledge of publishing. The Comprehensive Track is for students who do not wish to specialize in either of the other two tracks.

Note: Many majors already require one or more of the courses leading to the Certificate in Writing and Publishing or list these courses as recommended electives

Professional Writing and Publishing

18.0 credits

The Professional Writing and Publishing track is useful for business majors or students in technical or science areas who want to highlight their acquisition of writing skills. For students majoring in the humanities it provides an opportunity to develop areas of writing and publishing competencies in the professional arena.

This track offers three focus options:

- Business Communication and Publishing: For students interested in a career in business.
- Technical Communication and Publishing: For students interested in engineering, science, information science and technology and careers in higher education.
- Journalism: For students interested in global journalism and international affairs.

Business Communication and Publishing

Required courses		Credits	
COM 270	Business Communication	3.0	
COM 350	Message Design and Evaluation	3.0	
or			
COM 375 WI	Grant Writing	3.0	

Students select one of the following professional writing courses:

COM 320	Science Writing	3.0
COM 420	Technical Editing	3.0
COM 380	Special Topics (as appropriate, Copy Editing for example)	3.0

Students select one of the following publishing courses:

WRIT 400	Writing in Cyberspace	4.0
WRIT 310	Literary Editing and Publishing	3.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0

Students select any two additional Certificate in Writing and Publishing courses, including but not limited to the following:

COM 260	Fundamentals of Journalism	3.0
COM 300	On-line Journalism	3.0
COM 315	Advanced Journalism: Investigative Reporting	3.0
COM 390	Global Journalism	3.0
WRIT 220	Creative Non-Fiction	3.0
WRIT 225	Creative Writing	3.0
WRIT 301 WI	Writing Poetry	3.0
WRIT 302	Writing Fiction	3.0

WRIT 303	Writing Humor and Comedy	3.0
VRIT 304	Special Topics in Writing	3.0
VRIT 306	Writing About the Media	3.0
echnical Cor	mmunication and Publishing	
Required cours	ses	
COM 310	Technical Communication	3.0
COM 375 WI	Grant Writing	3.0
Students selec	t one of the following professional writing courses:	
COM 320	Science Writing	3.0
COM 350	Message Design and Evaluation	3.0
COM 380	Special Topics (as appropriate, Copy Editing for example)	3.0
COM 420	Technical Editing	3.0
Students selec	t one of the following publishing courses:	
WRIT 310	Literary Editing and Publishing	3.0
WRIT 400	Writing in Cyberspace	4.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0
COM 260	Fundamentals of Journalism	3.0
COM 300	On-line Journalism	3.0
COM 390	Global Journalism	3.0
COM 315	Advanced Journalism: Investigative Reporting	3.0
WRIT 220	Creative Non-Fiction	3.0
WRIT 225	Creative Writing	3.0
	Writing Poetry	3.0
		2.0
WRIT 301 WI	Writing Fiction	3.0
WRIT 301 WI WRIT 302	Writing Fiction Writing Humor and Comedy	3.0
WRIT 301 WI WRIT 302 WRIT 303		3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306	Writing Humor and Comedy	
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304	Writing Humor and Comedy Special Topics in Writing	3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306	Writing Humor and Comedy Special Topics in Writing Writing About the Media	3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours	Writing Humor and Comedy Special Topics in Writing Writing About the Media	3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260	Writing Humor and Comedy Special Topics in Writing Writing About the Media	3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students selec	Writing Humor and Comedy Special Topics in Writing Writing About the Media se: Fundamentals of Journalism	3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students selected COM 300	Writing Humor and Comedy Special Topics in Writing Writing About the Media se: Fundamentals of Journalism t two of the following journalism courses:	3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260	Writing Humor and Comedy Special Topics in Writing Writing About the Media se: Fundamentals of Journalism t two of the following journalism courses: On-line Journalism	3.0 3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students selec COM 300 COM 315 COM 390	Writing Humor and Comedy Special Topics in Writing Writing About the Media Se: Fundamentals of Journalism t two of the following journalism courses: On-line Journalism Advanced Journalism: Investigative Reporting	3.0 3.0 3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students selec COM 300 COM 315 COM 390	Writing Humor and Comedy Special Topics in Writing Writing About the Media Se: Fundamentals of Journalism t two of the following journalism courses: On-line Journalism Advanced Journalism: Investigative Reporting Global Journalism	3.0 3.0 3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students select COM 300 COM 315 COM 390 Students select WRIT 310	Writing Humor and Comedy Special Topics in Writing Writing About the Media Se: Fundamentals of Journalism It two of the following journalism courses: On-line Journalism Advanced Journalism: Investigative Reporting Global Journalism It one of the following publishing courses:	3.0 3.0 3.0 3.0 3.0 3.0 3.0
WRIT 301 WI WRIT 302 WRIT 303 WRIT 304 WRIT 306 Journalism Required cours COM 260 Students selec COM 300 COM 315 COM 390 Students selec	Writing Humor and Comedy Special Topics in Writing Writing About the Media Se: Fundamentals of Journalism It two of the following journalism courses: On-line Journalism Advanced Journalism: Investigative Reporting Global Journalism It one of the following publishing courses: Literary Editing and Publishing	3.0 3.0 3.0 3.0 3.0 3.0

Students select any two additional Certificate in Writing and Publishing courses, including but not limited to the following:

-		
COM 270	Business Communication	3.0
or		
COM 310	Technical Communication	3.0
COM 320	Science Writing	3.0
COM 375 WI	Grant Writing	3.0
COM 420	Technical Editing	3.0
WRIT 220	Creative Non-Fiction	3.0
WRIT 225	Creative Writing	3.0
WRIT 301 WI	Writing Poetry	3.0
WRIT 302	Writing Fiction	3.0
WRIT 303	Writing Humor and Comedy	3.0
WRIT 304	Special Topics in Writing	3.0
WRIT 306	Writing About the Media	3.0

Creative Writing and Publishing

18.0 credits

This track is designed for students who want to develop their creative writing skills either for personal development and expression, or because they recognize that creative writing develops imagination; sharpens clarity of expression; and enhances sensitivity to other people. Creative writing is a good pre-professional concentration for pre-law, pre-med, and the social sciences. The importance of creative writing has been recognized for engineering and for business.

	t three of the following creative writing courses (one of a 200-level course)	Credits
WRIT 220	Creative Non-Fiction	3.0
WRIT 225	Creative Writing	3.0
WRIT 301 WI	Writing Poetry	3.0
WRIT 302	Writing Fiction	3.0
WRIT 303	Writing Humor and Comedy	3.0
WRIT 304	Special Topics in Writing	3.0
WRIT 306	Writing About the Media	3.0

Students select one of the following publishing courses:

WRIT 310	Literary Editing and Publishing	3.0
WRIT 400	Writing in Cyberspace	4.0
WRIT 405	Internship in Literary Publishing*	2.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0
COM 350	Message Design and Evaluation	3.0

^{*} WRIT 405 Must be taken twice if no other publishing course is taken.

Students select any two additional Certificate in Writing and Publishing courses, including but not limited to the following:

COM 260	Fundamentals of Journalism	3.0
COM 300	On-line Journalism	3.0
COM 390	Global Journalism	3.0
COM 315	Advanced Journalism: Investigative Reporting	3.0
COM 270	Business Communication	3.0
or		
COM 310	Technical Communication	3.0
COM 320	Science Writing	3.0
COM 350	Message Design and Evaluation	3.0
COM 420	Technical Editing	3.0
COM 375 WI	Grant Writing	3.0

Comprehensive Writing and Publishing

18.0 credits

The Comprehensive Track is designed for students whose majors and minors include writing courses (either as electives or required courses) and whose schedules allow for the additional credits to obtain certification.

Students sele	ect two of the following publishing courses:	Credits
WRIT 310	Literary Editing and Publishing	3.0
WRIT 400	Writing in Cyberspace	3.0
WRIT 405	Internship in Literary Publishing*	2.0
COM 335	Electronic Publishing	3.0
COM 340	Desktop Publishing	3.0
* WRIT 405 I	Must be taken twice.	
Students selecategories:	ect two of the following course sequences from at leas	st two different
Creative writi	ng	
WRIT 220	Creative Non-Fiction	3.0
and 	Any 300-level writing (WRIT) course	3.0
or		
WRIT 225	Creative Writing	3.0
	Any 300-level writing (WRIT) course	3.0
Professional	writing	
COM 310	Technical Communication	3.0
and		
COM 420	Technical Editing	3.0
or COM 375	Grant Writing	3.0
00W 373	Crant Witting	0.0
or		
COM 270	Business Communication	3.0
and		
COM 375	Grant Writing	3.0
or COM 250	Manage Pasies and Fredricker	0.0
COM 350	Message Design and Evaluation	3.0
Journalism		
COM 260	Fundamentals of Journalism	3.0
COM 260 And one of the		3.0

COM 300	On-line Journalism	3.0
COM 315	Advanced Journalism	3.0
COM 390	Global Journalism	3.0



Environmental Science

Bachelor of Science Degree: 185.5 credits

Environmental science is a multidisciplinary field designed to try to understand environmental problems and find solutions to them. This field requires understanding of a number of disciplines, including biology, chemistry, hydrology, and climatology. Solving some of our environmental problems also requires some knowledge of environmental policy, sociology, ethics, and economics.

For more information about the program, visit the College's Environmental Science web page.

Environmental Science

Bachelor of Science Degree: 185.5 credits

Degree requirements (incoming students, 2009/2010)

The program is designed to prepare students for careers in environmental science, environmental assessment, environmental health, marine science, applied ecology, biodiversity and conservation and paleontology. Each student is required to complete the environmental core curriculum, listed below.

Humanities a	and Social Science	34.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
COM 230	Techniques of Speaking	3.0
COM 310 WI	Technical Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENVP 360	Environmental Movements in America	3.0
ENVP 365	Introduction to Environmental Policy	3.0
PHIL 341	Philosophy of the Environment	3.0
or		
PHIL 251	Ethics	
UNIV 101	The Drexel Experience	2.0
	Humanities electives	6.0
Bioscience		16.5- 18.5 Credits
BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5
BIO 123	Organismal Diversity and Ecology	4.5
BIO 221	Microbiology	5.0
or ENVS 316	Sanitary Microbiology	3.0
Chemical and	d Physical Sciences	40.0 Credits
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
CHEM 241	Organic Chemistry	4.0
CHEM 242	Organic Chemistry II	4.0
	Organic Chemistry I Laboratory	3.0
CHEM 244	Organic Chemistry i Laboratory	0.0
CHEM 244 PHEV 145	Weather 1: Climate and Global Change	4.0
PHEV 145		
	Weather 1: Climate and Global Change	4.0

Mathematics	and Statistics	18.0 Credits
MATH 410	Scientific Data Analysis I	3.0
MATH 411	Scientific Data Analysis II	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
or		
MATH 101	Introduction to Analysis I Introduction to Analysis II	4.0
MATH 102 MATH 239	Introduction to Analysis ii Intermediate Calculus	4.0 4.0
	tal Science Core Requirements	39.0 Credits
ENVS 230	General Ecology	3.0
ENVS 260	Environmental Science and Society I	3.0
ENVS 272	Physical Geology	4.0
ENVS 284 WI	Physiological and Population Ecology	3.0
ENVS 285	Population Ecology Laboratory	2.0
ENVS 286 WI	Community and Ecosystem Ecology	3.0
ENVS 287	Community Ecology Laboratory	2.0
ENVS 338	Biodiversity and Conservation	3.0
ENVS 410	Physiological Ecology	3.0
or		
ENVS 412	Biophysical Ecology	3.0
ENVS 441	Issues in Global Change I: Seminar	2.0
	legues in Global Change II: Research	2.0
ENVS 442 ENVS 460 Environment	Issues in Global Change II: Research Evolution tal Science Electives*	3.0 24.0 Credits
Environmen	Evolution tal Science Electives* selects 24 credits of Environmental Science electives	3.0 24.0 Credits
Environment Each student	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s:	3.0 24.0 Credits
Environment Each student following area	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s:	3.0 24.0 Credits
Environment Each student following area	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s:	24.0 Credits
Environment Each student following area Taxonomy Ele BIO 254	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology	24.0 Credits from the
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261	Evolution tal Science Electives* selects 24 credits of Environmental Science electives is: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II	3.0 24.0 Credits s from the 5.0 5.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology	3.0 24.0 Credits s from the 5.0 5.0 4.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392	Evolution tal Science Electives* selects 24 credits of Environmental Science electives is: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology	3.0 24.0 Credits s from the 5.0 4.0 4.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology	3.0 24.0 Credits s from the 5.0 5.0 4.0 4.0 4.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392	Evolution tal Science Electives* selects 24 credits of Environmental Science electives is: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology	3.0 24.0 Credits s from the 5.0 5.0 4.0 4.0 4.0 4.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology	3.0 24.0 Credits s from the 5.0 4.0 4.0 4.0 4.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology	3.0 24.0 Credits s from the 5.0 4.0 4.0 4.0 4.0 3.0
ENVS 460 Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401 ENVS 405	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology	3.0 24.0 Credits s from the 5.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology Biophysical Ecology	3.0 24.0 Credits s from the 5.0 5.0 4.0 4.0 4.0 3.0 3.0 3.0
ENVS 460 Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401 ENVS 405	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology	3.0 24.0 Credits s from the 5.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401 ENVS 405 ENVS 412	Evolution tal Science Electives* selects 24 credits of Environmental Science electives is: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology Biophysical Ecology Advanced Community Ecology	3.0 24.0 Credits s from the 5.0 5.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401 ENVS 405 ENVS 412 ENVS 413	Evolution tal Science Electives* selects 24 credits of Environmental Science electives is: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology Biophysical Ecology Advanced Community Ecology	3.0 24.0 Credits s from the 5.0 5.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 476 ENVS 477 Process Elect ENVS 401 ENVS 405 ENVS 413 Habitat Speci	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology Biophysical Ecology Advanced Community Ecology	3.0 24.0 Credits a from the 5.0 5.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0
Environment Each student following area Taxonomy Ele BIO 254 BIO 256 BIO 260 BIO 261 ENVS 375 ENVS 392 ENVS 477 Process Elect ENVS 401 ENVS 401 ENVS 405 ENVS 412 ENVS 413 Habitat Specii	Evolution tal Science Electives* selects 24 credits of Environmental Science electives s: ectives Invertebrate Morphology and Physiology Vertebrate Morphology and Physiology Plant Biology I Plant Biology II Invertebrate Paleontology Ichthyology and Herpetology Paleobotany Vertebrate Paleontology tives Chemistry of the Environment Advanced Population Ecology Biophysical Ecology Advanced Community Ecology fic Electives Tropical Ecology	3.0 24.0 Credits from the 5.0 4.0 4.0 4.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0

ENVS 383	Ecology of the NJ Pine Barrens	5.0
ENVS 388	Marine Field Methods	5.0
ENVS 390	Marine Ecology	3.0
Paleo-Geology	Electives	
ENVS 270	History of Life on Earth	4.0
ENVS 374	Sedimentary Environments	3.0
ENVS 375	Invertebrate Paleontology	4.0
ENVS 476	Paleobotany	3.0
ENVS 477	Vertebrate Paleontology	3.0
Environmental	Health Electives	
ENVS 321	Environmental Health	3.0
ENVS 331	Industrial Hygiene I	3.0
ENVS 332	Industrial Hygiene II	3.0
ENVS 431	Epidemiology	3.0
ENVS 436	Principles of Toxicology I	3.0
ENVS 437	Principles of Toxicology II	3.0
ENVP 245	Sociology of the Environment	3.0
ENVS 262	Environmental Science and Society II	3.0
ENVS 351	Introduction to Resources and Environmental Economics	3.0
ENVS 370	Practice of Resource and Environmental Economics	3.0
Chemical and	Physical Sciences Electives	
CHEM 230	Quantitative Analysis	3.0
CHEM 231	Quantitative Analysis Lab	2.0
CHEM 243	Organic Chemistry III	3.0
CHEM 245	Organic Chemistry II Lab	3.0
PHEV 146	Weather 2: Analysis/Forecast	4.0
Equatorial Gui	nea: Bioko Island Study Abroad Program **	
ENVS 341	Equatorial Guinea: Society and Environment	4.5
ENVS 342	Equatorial Guinea: Natural Resource Economics	4.5
ENVS 343	Equatorial Guinea: Field Methods in Tropical Ecology	3.0
ENVS 344	Equatorial Guinea: Research Methods in Tropical Ecology	6.0
_		
Free electives		11 0
	Free electives	11.0 - 13.0

*Environmental Science electives are chosen in consultation with the student's advisor to give a total of 63 credits in environmental science. Other required or elective courses in the humanities, mathematics and other sciences, and general electives make up the total 185.5 credits required for the degree.

Field experience includes quantitative environmental measurements in local aquatic and terrestrial habitats, such as streams, lakes, the Delaware Bay, the Poconos, and the New Jersey Pine Barrens.

Students are required to consult frequently with their academic advisors for curriculum planning. Many of the graduate courses in environmental science are also open to qualified seniors who wish to become familiar with some of the

13.0

applications in the field. Prerequisites and descriptions of available graduate courses appear in the graduate catalog.

**The Equatorial Guinea: Bioko Island Study Abroad Program offers a unique opportunity for undergraduates and recent graduates to study tropical biodiversity and its conservation, with an emphasis on field work that takes advantage of Bioko Island's pristine rainforests ranging from sea level to over 10,000 feet in altitude, its seven species of rare monkeys and its four species of nesting sea turtles. For more information, please visit the Drexel Study Abroad Office.

Writing-Intensive Course Requirements

In order to graduate, all students must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BS Environmental Science, Co-op 4 YR UG Co-op Concentration

Term 1 BIO 121 CHEM 101 ENGL 101 UNIV 101 MATH 121 Or MATH 101	Physiology and Nutrition General Chemistry I Expository Writing and Reading The Drexel Experience Calculus I Introduction to Analysis I Term Credits	Credits 4.5 3.5 3.0 1.0 4.0 4.0 16.0
Term 2 BIO 122 CHEM 102 ENGL 102 UNIV 101 MATH 122 Or MATH 102	Cells and Genetics General Chemistry II Persuasive Writing and Reading The Drexel Experience Calculus II Introduction to Analysis II Term Credits	Credits 4.5 4.5 3.0 2.0 4.0 4.0
Term 3 BIO 123 CHEM 103 ENGL 103 MATH 239 Or MATH 123	Organismal Diversity & Ecology General Chemistry III Analytical Writing and Reading Mathematics for the Life Sciences Calculus III Term Credits	Credits 4.5 5.0 3.0 4.0 4.0
Term 4 CHEM 241 ENVS 230 ENVS 272	Organic Chemistry I General Ecology Physical Geology Humanities/Social Science elective Term Credits	Credits 4.0 3.0 4.0 3.0 14.0
Term 5 CHEM 242 CHEM 244 ENVS 260 ENVS 284 ENVS 285	Organic Chemistry II Organic Chemistry Laboratory I Environmental Science and Society I Physiological and Population Ecology Population Ecology Lab Term Credits	Credits 4.0 3.0 3.0 2.0 15.0
Term 6 ECON 201 PHEV 145 PHYS 152	Principles of Microeconomics Weather I: Climate and Global Change Introductory Physics I Environmental Science elective (See degree requirements) Term Credits	Credits 4.0 4.0 4.0 3.0 15.0
Term 7 COM 230 ECON 202	Techniques of Speaking Principles of Macroeconomics	Credits 3.0 4.0

PHYS 153	Introductory Physics II	4.0
٠	Free elective	3.0
•	Environmental Science elective (See degree requirements) Term Credits	3.0 17.0
	Term Credits	17.0
Term 8		Credits
ENVP 360	Environmental Movements in America	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
ENVS 287	Community Ecology Lab	2.0
PHYS 154 ENVS 316	Introductory Physics III	4.0
or	Sanitary Microbiology	3.0
BIO 221	Microbiology	5.0
•	Term Credits	15.0
Term 9		Credits
COM 310	Technical Communication	3.0
ENVP 365	Introduction to Environmental Policy Analysis	3.0
PHIL 251	Ethics	3.0
or	Lunos	3.0
PHIL 341	Philosophy of the Environment	3.0
ENVS 410	Physiological Ecology	3.0
or ENVS 412	Biophysical Ecology	3.0
•	Environmental Science elective (See degree requirements)	3.0
•	Term Credits	15.0
Term 10		Credits
ENVS 338	Biodiversity and Conservation	3.0
MATH 410	Scientific Data Analysis I	3.0
ı	Free elective	3.0
•	Environmental Science elective (See degree requirements)	3.0
•	Humanities/Social Science elective	3.0
•	Term Credits	15.0
Term 11		Credits
ENVS 441	Issues in Global Change I: Seminar	2.0
MATH 411	Scientific Data Analysis II	3.0
ı	Free elective	3.0
•	Environmental Science electives (See degree requirements)	6.0
٠	Term Credits	14.0
Term 12		Credits
ENVS 442	Issues in Global Change II: Research	2.0
ENVS 460	Evolution	3.0
1	Free elective	3.0
٠	Environmental Science electives (See degree requirements)	6.0
i	Term Credits	14.0
	Tatal One dita (minimum)	101 -
	Total Credits (minimum)	184.5

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Recommended Plan Of Study

BS Environmental Science, Non Co-op 4 YR UG No Co-op Concentration

Term 1 BIO 121 CHEM 101 ENGL 101 UNIV 101 MATH 121 Or MATH 101	Physiology of Nutrition General Chemistry I Expository Writing and Reading The Drexel Experience Calculus I Introduction to Math Analysis I Term Credits	4.5 3.5 3.0 1.0 4.0 4.0
Term 2 BIO 122 CHEM 102 ENGL 102 UNIV 101 MATH 122 Or MATH 102	Cells and Genetics General Chemistry II Persuasive Writing and Reading The Drexel Experience Calculus II Introduction to Math Analysis II	Credits 4.5 4.5 3.0 2.0 4.0
Term 3 BIO 123 CHEM 103 ENGL 103 MATH 239 Or MATH 123	Term Credits Organismal Diversity and Ecolology General Chemistry III Analytical Writing and Reading Mathematics for the Life Sciences Calculus III	18.0 Credits 4.5 5.0 3.0 4.0
Term 4 CHEM 241 ENVS 230 ENVS 272	Organic Chemistry I General Ecology Physical Geology Humanities/Social Science elective Term Credits	16.5 Credits 4.0 3.0 4.0 3.0 14.0
Term 5 CHEM 242 CHEM 244 ENVS 260 ENVS 284 ENVS 285	Organic Chemistry II Organic Chemistry Lab I Environmental Science and Society I Physiological and Population Ecology Population Ecology Lab Term Credits	4.0 3.0 3.0 3.0 2.0 15.0
Term 6 COM 230 PHEV 145 PHIL 341 Or PHIL 251	Techniques of Speaking Weather I: Climate and Global Change Philosophy of the Environment Ethics Free elective Environmental Science elective (See degree requirements) Term Credits	3.0 4.0 3.0 3.0 3.0 3.0 16.0

Term 7		Credits
ENVP 360	Environmental Movements in America	3.0
ENVS 286	Community and Ecosystem Ecology	3.0
ENVS 287	Community Ecology Lab	2.0
PHYS 152	Introductory Physics I	4.0
ENVS 316 Or	Sanitary Microbiology	3.0
BIO 221	Microbiology	5.0
•	Term Credits	15.0
Term 8		Credits
COM 310	Technical Communication	3.0
ECON 201	Principles of Microeconomics	4.0
ENVP 365	Introduction to Environmental Policy Analysis	3.0
PHYS 153	Introductory Physics II	4.0
ENVS 412	Biophysical Ecology	3.0
Or ENVS 410	Physiological Ecology	3.0
	Term Credits	17.0
Term 9 ECON 202		Credits
PHYS 154	Principles of Macroeconomics	4.0
<u>FH13 134</u>	Introductory Physics III	4.0
•	Free elective	3.0
•	Environmental Science elective (See degree requirements) Term Credits	3.0 14.0
	remi Credits	14.0
Term 10		Credits
BIO 338	Biodiversity and Conservation	3.0
MATH 410	Scientific Data Analysis I	3.0
	Environmental Science electives (See degree requirements)	6.0
	Humanities/Social Science elective	3.0
	Term Credits	15.0
Term 11		Credits
ENVS 441	Issues in Global Change I: Seminar	2.0
MATH 411	Scientific Data Analyis II	3.0
•	Free elective	3.0
	Environmental Science electives (See degree requirements)	6.0
·	Term Credits	14.0
Term 12		Credits
ENVS 442	Issues in Global Change II: Research	2.0
ENVS 460	Evolution	3.0
į	Free elective	3.0
į	Environmental Science electives (See degree requirements)	6.0
•	Term Credits	14.0
	Total Credits (minimum)	184.5

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Minor in Ecology

The minor in ecology meets the needs of engineering, science, arts, applied arts, information, and business students interested in environmental science. Prior to taking ENVS 230 General Ecology, students are minimally expected to have had one term to a year of both general biology and general chemistry.

Required Courses		26.0
ENVS 230	General Ecology	3.0
ENVS 260	Environmental Science and Society	3.0
ENVS 284 WI	Physiological and Population Ecology	3.0
ENVS 285	Population Ecology Laboratory	2.0
ENVS 286 WI	Community and Ecosystem Ecology	3.0
ENVS 287	Community Ecology Laboratory	2.0
ENVS 338	Biodiversity and Conservation	3.0
ENVS 460	Evolution	3.0
PHEV 145	Weather 1: Climate and Global Change	4.0

Minor in Environmental Health

The minor in environmental health offers practical course material to complement programs in nutrition, dietetics, biology, environmental science, and biomedical science. It could also complement some engineering disciplines, such as chemical engineering and biomedical engineering. The course selection gives students a significant introduction to the effect of various environmental factors—including intrinsic biological rhythms, pathogenic microbes, and toxic chemicals—on the health and well-being of people.

The minor requires a minimum of 24 credits. As many as 9 of these credits can be counted toward some majors, such as bioscience and environmental science.

Required courses		24.0
BIO 201	Human Physiology I	4.0
ENVS 436	Principles of Toxicology I	3.0
ENVS 331	Industrial Hygiene I	3.0
ENVS 431	Epidemiology	3.0
ENVS 321	Environmental Health	3.0
	A statistics course	3.0
Students sele	ect:	
BIO 221	Microbiology	5.0
or		
ENVS 316 and	Sanitary Microbiology	3.0
	Environmental Health (ENVS) elective	3.0



Certificate in Toxicology and Industrial Hygiene

12.0 credits

This online certificate program is specifically designed for students at the post-baccalaureate level in industrial or governmental settings. The curriculum provides a strong foundation in both toxicology and industrial hygiene to enhance the student's on-the-job performance in the areas of health and safety.

Visit the Drexel University e-Learning site for additional information about the Certificate in Toxicology and Industrial Hygiene program.

Required courses

ENVS 531	Industrial Hygiene I	3.0
ENVS 532	Industrial Hygiene II	3.0
ENVS 636	Principles of Toxicology I	3.0
ENVS 637	Principles of Toxicology II	3.0



Minor in Environmental Issues

The cross-cultural, interdisciplinary minor in environmental issues responds to the growing importance of environmental issues both in this country and in other major areas of the world. It offers in-depth study of issues about which future professionals will need to be well informed in order to operate effectively in the fields of diplomacy, government, politics, developmental policy, international business, and international trade.

The environmental issues minor requires a minimum of 24 credits, including a directed independent study and a minor thesis on environmental issues and public policy. There is also a prerequisite of 6 to 8 credits in environmental biology, ecology, and/or atmospheric science. The minor is administered through the Office of the Dean of the College of Arts and Sciences and is open to students in all disciplines.



History & Politics

The Department of History & Politics combines the disciplines of history and political science to provide students with the essential elements of liberal learning. The Department offers a major in history, a major in political science, as well as a dual major and six minors.

In the major program, required courses in history introduce students to historical interpretations in the specific context of selected time periods, geographic areas, and themes. Introductory courses in political science expose students to the particular approaches and subject matter of the five recognized branches of the discipline. Research methods in history and political science complete the core curriculum.

Beyond core introductory and seminar requirements in history, the department believes the most desirable curriculum offers students a wide degree of flexibility and independence. The curriculum plan permits students to design a course of study that reflects individual interest and meets a wide variety of preprofessional needs, such as pre-law or pre-civil service. This course of study is selected after close, continuing consultation with a faculty advisor chosen by the student or by the department head.

History

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General education requirements		68.0 - 72.0Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	3.0
	Two math courses	6.0-8.0
	Two science courses*	6.0-8.0

^{*}Any Biology (BIO), Chemisitry (CHEM), Nutrition (NFS), Physics (PHYS) or Environmental Science (ENVS) course.

Foundation requirements

Two diversity electives	6.0
Two consecutive foreign language courses (must complete level 201)	8.0
Four humanities/fine arts electives	12.0
Four social science electives	12.0
Two international studies electives	6.0

Core History Requirements		49.0 Credits
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
HIST 296	Research Methods in History	3.0
HIST 301	The Study of History	3.0
HIST 492	Senior Seminar in History	3.0
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
	Any 200-level European History course	3.0
	Any History of Latin America, Africa, or Asia	3.0

History Electives*	30.0 Credits
nistory Electives	30.0 Credits

^{*} Only 200-level and above HIST courses will fulfill this this requirement.

Free Electives	32.0- 36.0.0 Credits
FIEE EIECUVES	32.0- 30.0.0 Credits

Recommended Plan Of Study

BA History 5 YR UG Co-op Concentration

Term 1 ENGL 101 HIST 161 MATH 100 PSCI 110 UNIV 101	Expository Writing and Reading Themes in World Civilization I Fundamentals of Mathematics American Government The Drexel Experience Term Credits	3.0 3.0 3.0 4.0 2.0
Term 2 ENGL 102 HIST 162 MATH 101 UNIV 101	Persuasive Writing and Reading Themes World Civilization II Introduction to Analysis I The Drexel Experience Foreign language course (103-level or higher) Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 3.0-4.0 18.0-19.0
Term 3 ENGL 103 HIST 163 PSCI 120	Analytical Writing and Reading Themes World Civilization III History of Political Thought Foreign language course (201-level or higher) Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 4.0 4.0 3.0-4.0 17.0-18.0
Term 4 HIST 201	US History to 1815 Diversity studies elective History of Latin America, Africa, or Asia Humanities/Fine Arts elective Social and Behavioral Sciences elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0
Term 5 HIST 202 PSCI 140	US History, 1815-1900 Introduction to Comparative Political Analysis Free elective Humanities/Fine Arts elective Social and Behavioral Sciences elective Term Credits	3.0 4.0 3.0 3.0 3.0 16.0
Term 6 HIST 203 PSCI 150	US History since 1900 International Politics Diversity studies elective Free elective International studies elective Term Credits	3.0 4.0 3.0 3.0 3.0 16.0
Term 7 HIST 296	Research Methods in History Free elective Humanities/Fine Arts elective	Credits 3.0 3.0 3.0

	International studies elective Social and Behavioral Sciences elective Term Credits	3.0 3.0 15.0
Term 8	The Oran College	Credits
<u>HIST 301</u>	The Study of History	3.0
	Free elective	3.0
	History electives (200-level and above HIST courses)	6.0
	History of Europe course (200-level or higher)	3.0
	Humanities/Fine Arts elective	3.0
	Term Credits	18.0
Term 9		Credits
	Free electives	6.0
	History electives (200-level and above HIST courses)	6.0
	Social and Behavioral Sciences elective	3.0
	Term Credits	15.0
Term 10		Credits
HIST 492	Senior Seminar in History	3.0
•	Free elective	3.0
•	History electives (200-level and above HIST courses)	6.0
·	Term Credits	12.0
Term 11		Credits
	Free electives	6.0
•	History electives (200-level and above HIST courses)	6.0
•	Term Credits	12.0
Term 12		Credits
. 01111 12	Free electives	9.0
•	History electives (200-level and above HIST courses)	6.0
•	Term Credits	15.0
	Total Credits (minimum)	184.0-186.0

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History

Bachelor of Science Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General educ	ation requirements	64.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	3.0
	Any 8-credit math sequence*	8.0
	Any 8-credit science sequence**	8.0
* Sample Mati	-	8.0
Additional mathe Departme	ath sequence options are available. Students should ent.	check with the
MATH 101	Introduction to Math Analysis I	4.0
MATH 102	Introduction to Math Analysis II	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
**Sample Scie	ence sequences:	8.0
-	ence sequence options are available. Check with th	e the Department.
BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	4.0
or		
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
or		
CHEM 111	General Chemistry I	4.0
CHEM 112	General Chemistry II	4.0
or		
PHYS 103	General Physics I	4.0
PHYS 104	General Physics II	4.0
Foundation re	equirements	
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
or		
ANTH 110	The Human Past	3.0
COM 150	Mass Media and Society	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 202 WI	Romanticism to Modernism	3.0
ENGL 204	Post-Colonial Literature II:	3.0

Africa/Asia/Caribbean/Japan/Middle East

MUSC 130	Introduction to Music	3.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
PHIL 105	Critical Reasoning	3.0
	Any 4-credit statistics course	4.0

Core History	Requirements	49.0 Credits
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
HIST 296	Research Methods in History	3.0
HIST 301	The Study of History	3.0
HIST 492	Senior Seminar in History	3.0
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
	Any 200-level European History course	3.0
	Any History of Latin America, Africa, or Asia	3.0

History Electives*	30.0 Credits
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^{*} Only 200-level and above HIST courses will fulfill this this requirement.

Free Electives	40.0 Credits

Recommended Plan Of Study

BS History 5 YR UG Co-op Concentration

Term 1 ENGL 101 HIST 161 MATH 101 PSCI 110 UNIV 101	Expository Writing and Reading Themes World Civilization I Introduction to Analysis I American Government I The Drexel Experience Term Credits	Credits 3.0 3.0 4.0 4.0 2.0
Term 2 COM 150 ENGL 102 HIST 162 MATH 102 SOC 101 UNIV 101	Mass Media and Society Persuasive Writing and Reading Themes World Civilization II Introduction to Analysis II Introduction to Sociology The Drexel Experience Term Credits	Credits 3.0 3.0 3.0 4.0 3.0 1.0
Term 3 ENGL 103 HIST 163 MUSC 130 PSCI 120 PSY 101	Analytical Writing and Reading Themes World Civilization III Introduction to Music History of Political Thought General Psychology I Term Credits	Credits 3.0 3.0 3.0 4.0 3.0 16.0
Term 4 ENGL 202 HIST 201	Romanticism to Modernism US History to 1815 History of Latin America, Africa, or Asia Statistics elective Science sequence course 1 (See degree requirements list) Term Credits	Credits 3.0 3.0 3.0 4.0 4.0 17.0
Term 5 ENGL 204 HIST 202 PSCI 140	Post-Colonial Literature II US History, 1815-1900 Introduction to Comparative Political Analysis Free elective Science sequence course 2 (See degree requirements list) Term Credits	Credits 3.0 3.0 4.0 3.0 4.0 17.0
Term 6 ECON 201 HIST 203 PSCI 150 ANTH 110 or ANTH 101	Principles of Microeconomics US History since 1900 International Politics The Human Past Introduction to Cultural Diversity	Credits 4.0 3.0 4.0 3.0
Term 7 ECON 202 HIST 296	Free elective Term Credits Principles of Macroeconomics	3.0 17.0 Credits 4.0

	Research Methods in History	3.0
PHIL 105	Critical Reasoning	3.0
	Free electives	6.0
	Term Credits	16.0
Term 8		Credits
HIST 301	The Study of History	3.0
•	Free elective	3.0
•	History electives (200-level and above HIST courses)	6.0
·	History of Europe course (200-level or higher)	3.0
•	Term Credits	15.0
Term 9		Credits
•	Free electives	9.0
•	History electives (200-level and above HIST courses)	6.0
•	Term Credits	15.0
Term 10		Credits
HIST 492	Senior Seminar	3.0
•	Free elective	3.0
	History electives (200-level and above HIST courses)	6.0
•	Term Credits	12.0
Term 11		Credits
•	Free electives	6.0
•	History electives (200-level and above HIST courses)	6.0
•	Term Credits	12.0
Term 12		Credits
i	Free electives	6.0
•	History electives (200-level and above HIST courses)	6.0
•	Term Credits	12.0
	Total Credits (minimum)	182.0

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Minor in American Studies

American studies is an interdisciplinary approach to studying American life and culture. Drawing on the expertise and methodologies of a variety of subjects, American studies offers students the opportunity to examine their world critically and understand their place in it. American studies is an ideal minor for students planning for graduate work or professional careers in business, engineering, and law because it grounds these practical fields in a strong humanistic tradition.

Students are required to take 25 credits of coursework from the following categories:

Required courses

Two of the following courses

PSCI 110	American Government*	4.0
One of the fo	llowing courses:	3.0
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
Two US Histo	ory courses	6.0
Some examp	les of US History courses include the following:	
HIST 214	US Civil Rights Movement	3.0
HIST 215	American Slavery	3.0
HIST 216	Freedom in America	3.0
HIST 218	Race and Film in US History	3.0
HIST 220	History of American Business	3.0
HIST 222	History of Work and Workers in America	3.0
HIST 223	Women and Work in america	3.0
HIST 224	Women in American History	3.0
HIST 234	US Civil War	3.0
Two US Gove	ernment or US Politics courses	6.0
Some examp following:	les of US Government or US Politics courses include the	
PSCI 210	American Government II	3.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
PSCI 313	State and Local Government	3.0
PSCI 330	Public Opinion and Propaganda	3.0
	Constitutional Law II	3.0
	Constitutional Law II	0.0
PSCI 363 PSCI 364 PSCI 365	Constitutional Law II Constitution Law II Politics, Law, and Justice	3.0

6.0

ENGL 205 WI	American Literature I	3.0
ENGL 206 WI	American Literature II	3.0
ENGL 245	American Ethnic Literature	3.0
MUSC 336	History of Jazz	3.0
MUSC 338 WI	American Popular Music	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 341	Environmental Movements in America	3.0

 $^{^{\}star}$ Or, if a History or Political Science major, PSCI 110 may be substituted with a third course from the PSCI courses listed.

Minor in European Studies

This minor provides students with exposure to the historical, political, social, and cultural development of European civilization. The program focuses on the modern period, but students gain an awareness of the deep historical roots and currents on which the modern experience has been built.

Students are required to take 25 credits of coursework from the following: categories:

Required courses		10.0 Credits
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
PSCI 120	History of Political Thought	4.0
or		
PSCI 140	Introduction to Comparative Political Analysis	4.0
<u> </u>	ean History courses	9.0
HIST 235	The Great War, 1914-1918	3.0
HIST 236	World War II	3.0
HIST 241	Modern France	3.0
HIST 242	Modern Italy	3.0
HIST 243	Germany and the World of Hitler	3.0
HIST 244	20th-century Russia and the USSR	3.0
HIST 246	England Elizabeth/Waterloo, 1558-1815	3.0
LUOTOAT		

HIST 236	World War II	3.0
HIST 241	Modern France	3.0
HIST 242	Modern Italy	3.0
HIST 243	Germany and the World of Hitler	3.0
HIST 244	20th-century Russia and the USSR	3.0
HIST 246	England Elizabeth/Waterloo, 1558-1815	3.0
HIST 247	Modern England, 1815 to Present	3.0
HIST 250	European Revolutionary Ideology	3.0
HIST 251	Fascism	3.0
HIST 252	Europe between Wars, 1919-1939	3.0
HIST 258	History of Europe, 19th Century	3.0
HIST 259	History of Europe, 20th Century	3.0

Two of the following courses		6.0
ARTH 101	History of Art I: Ancient to Medieval	3.0
ARTH 102	History of Art II: Renaissance to Modern	3.0
ARTH 103	History of Art III: Early Modern to Postmodernism	3.0
ENGL 200 WI	Classical to Medieval Literature	3.0
ENGL 201	Renaissance to the Enlightenment	3.0
ENGL 202 WI	Romanticism to Modernism	3.0
ENGL 310 WI	Period Studies	3.0
ENGL 315 WI	Shakespeare	3.0
MUSC 231 WI	Music History I	3.0
MUSC 232	Music History II	3.0



Minor in History

Students are required to take 24 credits of coursework from the following categories:

Required courses

One of the fo	ollowing history sequences:	9.0
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
or		
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
History elect	tives	15.0
45 A	of any additional 200-level or higher HIST course	



Minor in Science, Technology, and Human Affairs

This minor affords students the opportunity to obtain in-depth exposure to the political and social issues related to modern science and technology. The program provides knowledge and skills useful in many areas of professional employment or as preparation for graduate and professional study.

Students are required to take 24 credits of coursework from the following categories:

Required Courses

HIST 280	History of Science I	3.0
HIST 281	History of Science II	3.0

Three HIST or Politics courses in Science or Technology

9.0

Some examples of HIST or Politics courses in Science or Technology include the following:

HIST 220	History of American Business	3.0
HIST 222	History of Work and Workers in America	3.0
HIST 282	The Scientific Revolution	3.0
HIST 285	Technology in Historical Perspective	3.0
HIST 286	Explorations of Technology and Gender	3.0
HIST 290	Technology and the World Community	3.0
HIST 292	Technology in American Life	3.0
PSCI 331	Environmental Politics	3.0
PSCI 371	Science, Technology, and Public Policy	3.0
PSCI 372	Urban Politics	3.0

Three of the following courses:

Three of the following courses:		9.0
ANTH 210	Worldview: Science, Religion, Magic	3.0
ANTH 240	Urban Anthropology	3.0
ANTH 355	Anthropology of Cyberspace	3.0
ENGL 300 WI	Literature and Science	3.0
ENGL 302	Environmental Literature	3.0
PHIL 311	Computer Ethics	3.0
PHIL 351	Philosophy of Technology	3.0
PHIL 361	Philosophy of Science	3.0
SOC 110	Sociology of the Future	3.0
SOC 215	Industrial Sociology	3.0

Minor in World History and Politics

This minor introduces students to the historical and political development of societies beyond the American and European context. The 20th-century experiences of decolonization, modernization, and development in Africa, Asia, Latin America, and the Islamic world are given special attention.

Students are required to take 24.0 - 27.0 credits, as follows:

Required courses

ENGL 203 WI

ENGL 204

Required cour	ses	
One of the foll	owing survey courses	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 267	Twentieth-century World I	3.0
HIST 268	Twentieth-century World II	3.0
Two Upper-Le	vel World History courses	6.0
Some example	es of upper-level World History courses are:	
HIST 238	The Vietnam War	3.0
HIST 244	20th-century Russia and USSR	3.0
HIST 263	The World and China	3.0
HIST 264	East Asia in Modern Times	3.0
HIST 270 WI	Introduction to Latin American History	3.0
HIST 271	History of Mexico	3.0
HIST 272	Ancient and Colonial Mexico	3.0
HIST 273	Modern Mexico	3.0
Three Internat	ional Political Science courses	9.0-10.0
Some example	es of International Political Science courses are:	
PSCI 150	International Politics	4.0
PSCI 240	Comparative Government	3.0
PSCI 323	Comparative Political Thought	3.0
PSCI 340	Politics of Developing Nations	3.0
PSCI 344	Introduction to 20th Century Middle East	3.0
PSCI 345	Comparative Politics of the Middle East	3.0
PSCI 351	International Organizations	3.0
PSCI 352	Ethics and International Relations	3.0
PSCI 353	International Human Rights	3.0
PSCI 358	Political Economy of Japan	3.0
Two courses	one course each from two of the following areas:	6.0
I WO COUISES,	-	0.0
ENGL 203 WI	Post-Colonial Literature I:	3.0

Africa/Asia/Caribbean/Japan/Middle East

Post-Colonial Literature II:

3.0

3.0

ENGL 325	Africa/Asia/Caribbean/Japan/Middle East Topics in World Literature	
ECON 340	International Business	
ECON 342	Economic Development	
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	
ANTH 210	Worldview: Science, Religion, Magic	
ANTH 310	Societies in Transition: The Impact of Modernization and the Third World	
IAS 360	Special Topics World Civilization	
SOC 330	Developing Nations and the International Division of Labor	
MUSC 331	World Musics	
	Any appropriate Art History (ARTH) course	



History & Politics

The Department of History & Politics combines the disciplines of history and political science to provide students with the essential elements of liberal learning. The Department offers a major in history, a major in political science, as well as a dual major and six minors.

In the major program, required courses in history introduce students to historical interpretations in the specific context of selected time periods, geographic areas, and themes. Introductory courses in political science expose students to the particular approaches and subject matter of the five recognized branches of the discipline. Research methods in history and political science complete the core curriculum.

Beyond core introductory and seminar requirements in history, the department believes the most desirable curriculum offers students a wide degree of flexibility and independence. The curriculum plan permits students to design a course of study that reflects individual interest and meets a wide variety of preprofessional needs, such as pre-law or pre-civil service. This course of study is selected after close, continuing consultation with a faculty advisor chosen by the student or by the department head.

History & Political Science

Bachelor of Arts Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General education requirements		68.0 - 72.0 Credits	
ENGL 101	Expository Writing and Reading	3.0	
ENGL 102	Persuasive Writing and Reading	3.0	
ENGL 103	Analytical Writing and Reading	3.0	
UNIV 101	The Drexel Experience	3.0	
	Two math courses	6.0-8.0	
	Two science courses*	6.0-8.0	

^{*}Any Biology (BIO), Chemisitry (CHEM), Nutrition (NFS), Physics (PHYS) or Environmental Science (ENVS) course.

Foundation requirements

Two diversity electives	6.0
Two consecutive foreign language courses (must complete level 201)	8.0
Four humanities/fine arts electives	12.0
Four social science electives	12.0
Two international studies electives	6.0

Core History & Political Science Requirements		73.0 Credits
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
HIST 296	Research Methods in History	3.0
HIST 301	The Study of History	3.0
HIST 492	Senior Seminar in History	3.0
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 130	Research Methods in Political Science I	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
PSCI 211	American Government II	4.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
PSCI 230	Research Methods in Political Science I	4.0
PSCI 240	Comparative Government	3.0
PSCI 250	American Foreign Policy	3.0
PSCI 270	Problems of Individual Liberty and Government Authority	3.0
	Any 200-level European History course	3.0
	Any History of Latin America, Africa, or Asia	3.0

History & Politics Electives		30.0 Credits
HIST	15.0 credits of History courses (200-level and above)	15.0
PSCI	15.0 credits of Political Science courses (300-level and above)	15.0
Free Electives		12.0 Credits

BA History & Political Science Dual Major 5 YR UG Co-op Concentration

Term 1 ENGL 101	Expository Writing and Reading	Credits 3.0
HIST 161	Themes World Civilization I	3.0
MATH 100	Fundamentals of Mathematics	3.0
PSCI 110	American Government I	4.0
PSCI 150	International Politics	4.0
<u>UNIV 101</u>	The Drexel Experience	2.0
	Term Credits	19.0
Term 2		Credits
ENGL 102 HIST 162	Persuasive Writing and Reading	3.0
MATH 101	Themes World Civilization II Introduction to Analysis I	3.0 4.0
PSCI 140	Introduction to Analysis I	4.0
UNIV 101	The Drexel Experience	1.0
1	Foreign language course (103-level or higher)	4.0
٠	Term Credits	19.0
Term 3		Credits
ENGL 103	Analytical Writing and Reading	3.0
HIST 163	Themes World Civilization III	3.0
PSCI 120	History of Political Thought	4.0
PSCI 130	Research Methods in Political Science I	4.0
	Foreign language course (201-level or higher)	4.0
	Term Credits	18.0
Term 4		Credits
HIST 201	US History to 1815	3.0
•	Diversity studies elective Humanities/Fine Arts elective	3.0
•	Science elective (See degree requirements)	3.0 3.0-4.0
•	Social and Behavioral Sciences elective	3.0-4.0
•	Term Credits	15.0-16.0
Term 5		Credits
HIST 202	US History, 1815-1900	3.0
PSCI 240	Comparative Government	3.0
	Humanities/Fine Arts elective	3.0
•	Science elective (See degree requirements)	3.0-4.0
•	Social and Behavioral Sciences elective	3.0
	Term Credits	15.0-16.0
Term 6		Credits
HIST 203	US History since 1900	3.0
PSCI 211	American Government II	4.0
	Diversity studies elective Humanities/Fine Arts elective	3.0
•	International studies elective	3.0 3.0
•	Term Credits	16.0
Term 7		Credits
HIST 296	Research Methods in History	3.0
PSCI 220	Constitutional and Judicial Process	3.0
PSCI 230		o.c

ı	Research Methods in Political Science II History of Latin America, Africa, or Asia	4.0 3.0
	Social and Behavioral Sciences elective	3.0
•	Term Credits	16.0
Term 8		Credits
PSCI 250	American Foreign Policy	3.0
ı	History elective (200-level and above HIST course)	3.0
	History of Europe course (200-level or higher)	3.0
	Humanities/Fine Arts elective	3.0
	Political Science elective (300-level and above PSCI course)	3.0
	Term Credits	15.0
Term 9		Credits
HIST 301	The Study of History	3.0
PSCI 270	Problems of Individual Liberty and Government Authority	3.0
•	Free elective	3.0
•	History elective (200-level and above HIST course)	3.0
•	Political Science elective (300-level and above PSCI course)	3.0
	Term Credits	15.0
Term 10		Credits
HIST 492	Senior Seminar	3.0
	Free elective	3.0
•	History elective (200-level and above HIST course)	3.0
•	Political Science elective (300-level and above PSCI course)	3.0
	Term Credits	12.0
Term 11		Credits
	Free elective	3.0
•	History elective (200-level and above HIST course)	3.0
i	Political Science elective (300-level and above PSCI course)	3.0
•	Social and Behavioral Sciences elective	3.0
	Term Credits	12.0
Term 12		Credits
·	Free elective	3.0
•	History elective (200-level and above HIST course)	3.0
i	International studies elective	3.0
•	Political Science elective (300-level and above PSCI course)	3.0
	Term Credits	12.0
	Total Credits (minimum)	184.0-186.0

History & Political Science

Bachelor of Science Degree: 182.0 credits

Degree requirements (incoming students, 2009/2010)

General educa	ation requirements	64.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	3.0
	Any 8-credit math sequence*	8.0
	Any 8-credit science sequence**	8.0
* Sample Matl	n sequences:	8.0
Additional ma Department.	th sequence options are available. Students shou	ıld check with the
MATH 101	Introduction to Math Analysis I	4.0
MATH 102	Introduction to Math Analysis II	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
**Sample Scie	ence sequences:	8.0
	ence sequence options are available. Check with	
BIO 102	Biology I: Cells and Tissues	4.0
BIO 102	Biology II: Growth and Heredity	4.0
or	Diology in Crown and Horoarty	
CHEM 101	General Chemistry I	3.5
CHEM 101	General Chemistry II	4.5
or	,	
CHEM 111	General Chemistry I	4.0
CHEM 112	General Chemistry II	4.0
or	•	
PHYS 103	General Physics I	4.0
PHYS 104	General Physics II	4.0
	<u>-</u>	
Foundation re		
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
Or	The Human Bast	2.0
ANTH 110	The Human Past	3.0
COM 150	Mass Media and Society	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 202 WI	Romanticism to Modernism	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0

MUSC 130	Introduction to Music	3.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
PHIL 105	Critical Reasoning	3.0
	Any 4-credit statistics course	4.0

Core History	& Political Science Requirements	73.0 Credits
HIST 161	Themes in World Civilization I	3.0
HIST 162	Themes in World Civilization II	3.0
HIST 163	Themes in World Civilization III	3.0
HIST 201	US History to 1815	3.0
HIST 202	US History, 1815-1900	3.0
HIST 203	US History since 1900	3.0
HIST 296	Research Methods in History	3.0
HIST 301	The Study of History	3.0
HIST 492	Senior Seminar in History	3.0
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 130	Research Methods in Political Science I	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
PSCI 211	American Government II	4.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
PSCI 230	Research Methods in Political Science I	4.0
PSCI 240	Comparative Government	3.0
PSCI 250	American Foreign Policy	3.0
PSCI 270	Problems of Individual Liberty and Government Authority	3.0
	Any 200-level European History course	3.0
	Any History of Latin America, Africa, or Asia	3.0

History & Politics Electives		30.0 Credits
HIST	15.0 credits of History courses (200-level and above)	15.0
PSCI	15.0 credits of Political Science courses (300-level and above)	15.0

Free Flectives	16.0 Credits

BS History & Political Science Dual Major *5 YR UG Co-op Concentration*

Term 1 ENGL 101 HIST 161 MATH 101 PSCI 110 UNIV 101	Expository Writing and Reading Themes World Civilization I Introduction to Analysis I American Government I The Drexel Experience Term Credits	3.0 3.0 4.0 4.0 2.0 16.0
Term 2 COM 150 ENGL 102 HIST 162 MATH 102 PSCI 140 UNIV 101	Mass Media and Society Persuasive Writing and Reading Themes World Civilization II Introduction to Analysis II Introduction to Comparative Political Analysis The Drexel Experience Term Credits	3.0 3.0 3.0 4.0 4.0 1.0
Term 3 ENGL 103 HIST 163 PSCI 120 PSCI 130 PSY 101	Analytical Writing and Reading Themes World Civilization III History of Political Thought Research Methods in Political Science I General Psychology I Term Credits	3.0 3.0 4.0 4.0 3.0 17.0
Term 4 ENGL 202 HIST 201 MUSC 130 PSCI 150	Romanticism to Modernism US History to 1815 Introduction to Music International Politics Science sequence course 1 (See degree requirements list) Term Credits	3.0 3.0 3.0 4.0 4.0 17.0
Term 5 ENGL 204 HIST 202 PSCI 240	Post-Colonial Literature II US History, 1815-1900 Comparative Government Statistics elective Science sequence course 2 (See degree requirements list) Term Credits	3.0 3.0 3.0 4.0 4.0 17.0
Term 6 ECON 201 HIST 203 PSCI 211 ANTH 110 Or ANTH 101	Principles of Microeconomics US History since 1900 American Government II The Human Past: An Introduction to Physical Anthropology and Prehistoric Archaeology Introduction to Cultural Diversity	4.0 3.0 4.0 3.0
Term 7 HIST 296 PHIL 105	Term Credits Research Methods in History	14.0 Credits 3.0

Critical Reasoning Constitutional and Judicial Process Research Methods in Political Science II History of Latin America, Africa, or Asia Term Credits	3.0 3.0 4.0 3.0 16.0
Principles of Macroeconomics American Foreign Policy History elective (200-level and above HIST course) History of Europe course (200-level or higher) Political Science elective (300-level and above PSCI course) Term Credits	Credits 4.0 3.0 3.0 3.0 3.0 16.0
The Study of History Problems of Individual Liberty and Government Authority Introduction to Sociology History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0
Senior Seminar Free elective History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits	3.0 3.0 3.0 3.0 3.0 12.0
Free electives History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits	Credits 6.0-7.0 3.0 3.0 12.0-13.0
Free electives History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits Total Credits (minimum)	Credits 6.0-7.0 3.0 3.0 12.0-13.0
	Constitutional and Judicial Process Research Methods in Political Science II History of Latin America, Africa, or Asia Term Credits Principles of Macroeconomics American Foreign Policy History elective (200-level and above HIST course) History of Europe course (200-level or higher) Political Science elective (300-level and above PSCI course) Term Credits The Study of History Problems of Individual Liberty and Government Authority Introduction to Sociology History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits Senior Seminar Free elective History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits Free electives History elective (200-level and above HIST course) Political Science elective (300-level and above PSCI course) Term Credits

International Area Studies

The Department of International Area Studies offers a BA in international area studies and minors in international area studies and in eight languages: Arabic, Chinese, French, German, Italian, Japanese, Russian, and Spanish. Courses in an ninth language—Korean—are currently offered at the introductory level, and the Modern Language program plans to develop advanced-level Korean courses in the near future.

International Area Studies (IAS) at Drexel University is an interdisciplinary, intercultural, and interactive major, linking language study with other academic disciplines such as politics, history, economics, sociology, anthropology, literature and philosophy. It provides critical direction in study, research and professional experience necessary to understanding current global trends in politics, sociology and economics. IAS also offers an innovative framework for the preparation of responsible citizens who are aware of larger world issues and local concerns and are able to draw on both the arts and sciences in considering these changes.

The four thematic concentrations—Justice and Human Rights; Global Science, Technology, and Society; International Business and Economics; and Literature, Culture and Arts—provide dynamic frameworks for studying about international technology transfers, humanitarian crises, border crossings, and global culture.

Students majoring in the program study one or more languages, and may qualify for the University's advanced-level Certification of Proficiency in their target language or languages. French, German, Italian and Spanish are the Western languages available; non-Western languages include Arabic, Chinese, Japanese, and Russian. The major enrolls a number of students from abroad as well as students who lived or studied in Europe, Latin America, or Asia during high school.

IAS programs give international area studies students the option of study programs in Brussels, Bonn, Berlin, Madrid, Paris, and London. The programs feature academic internships with national legislatures, the European Parliament, international law firms, nongovernmental service agencies, and multinational corporations. IAS Abroad programs are also available in China, Japan, Russia, and Costa Rica.

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.



Department of International Area Studies

The Department of International Area Studies offers a Bachelor of Arts degree.

The Bachelor of Arts (BA)

The BA degree provides preparation for entry-level careers in government, public relations, international advertising, and service agencies. The BA is also recommended for graduate study in fields such as law, international relations, public policy, political science, sociology, history, and economics.

Students select one concentration:

- Global Science, Technology and Society requirements
- International Business and Economics requirements
- Justice and Human Rights requirements
- · Literature, Culture and the Arts requirements

Note: Students who enrolled in the BS degree (prior to 2005) may view the former Bachelor of Science requirements in the archived catalog.

International Area Studies

Bachelor of Arts Degree: 182.0 credits

Global Science, Technology and Society Concentration

Degree requirements (incoming students, 2009/2010)

General Requirements		49.0-52.0 Credits
ANTH 101	Cultural Diversity	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
LING 102	Language and Society	3.0
PHIL 105	Critical Reasoning	3.0
PSCI 150	International Politics	3.0
UNIV 101	The Drexel Experience	2.0
MATH 100+	Two mathematics courses	6.0 - 8.0
	Two science courses	6.0
	One ethics course	3.0

IAS Core Curriculum Requirements		12.0 Credits
IAS 359	Culture and Values	3.0
IAS 360	Civilization	3.0
IAS 190	Global Research Methods	3.0
WMST 240	Women and Society in Global Context	3.0

Language Requirements

21.0 - 33.0 Credits

At least 4 language courses at the 300-level are required for graduation, with a minimum of 21 credits in at least one language.

Area-specific courses:

6.0 Credits

Students select at least two region specific HIS or PSCI courses approved by IAS.

Global Science, Technology and Society Requirements		39.0 Credits
COM 240	New Technologies in Communication	3.0
ENGL 300	Literature and Science	3.0
HIST 280	History of Science I	3.0
HIST 285	Technology in Historical Perspective	3.0
HIST 286	Exploration of Technology and Gender	3.0
HIST 290	Technology and the World Community	3.0

PHIL 335	Global Ethical Issues	3.0
PSCI 371	Science, Technology and Public Policy	3.0
SOC 235	Sociology of Health	3.0
SOC 345	Sociology of the Environment	3.0

Global Science	, Technology and Society Distribution Requirements	33.0 Credits
Students select	33.0 credits from at least 4 different disciplines:	
ANTH 210	Worldview: Science, Religion, Magic	3.0
BIO 264	Ethnobotany	3.0
ECON 301	Microeconomics	4.0
ECON 321	Macroeconomics	4.0
ECON 351	Resource and Environmental Economics	4.0
ENGL 302	Environmental Literature	3.0
HIST 220	History of American Business	3.0
HIST 223	Women and Work in America	3.0
HIST 281	History of Science II	3.0
HIST 292	Technology in American Life	3.0
IAS 320	Building Global Bridges	3.0
IAS 360	Special Topics in World Civilization ***	3.0.0
IAS 390	Special Topics in International Area Studies ***	3.0
NFS 345 WI	Foods and Nutrition of World Cultures	3.0
NFS 446	Perspectives on World Nutrition	3.0
PHIL 321	Biomedical Ethics	3.0
PHIL 341	Philosophy of the Environment	3.0
PHIL 351	Philosophy of Technology	3.0
PHIL 361	Philosophy of Science	3.0
PSCI 352	Ethics and International Relations	3.0
SOC 225	Technology and Aging in Industrial Societies	3.0
SOC 260 WI	Classical Social Theory	3.0
SOC 330	Developing Nations and the International Division of Labor	3.0
SOC 346	Environmental Justice	3.0
SOC 435	Seminar: Organization of American States***	3.0
WRIT 400	Writing in Cyberspace	4.0

^{*}Special topics courses with an international or relevant theme will be considered for course credit upon request and review.

^{***}Repeatable for credit.

Electives	11.0-23.0
Electives	Credits

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate. A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog.

^{**}As appropriate to the major.

BA International Area Studies
5 YR UG Co-op Concentration /Global Science, Tech & Society

Term 1 ANTH 101 ENGL 101 MATH 101 UNIV 101	Introduction to Cultural Diversity Expository Writing and Reading Introduction to Analysis I The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 2 ENGL 102 LING 102 MATH 102 PHIL 105 UNIV 101	Persuasive Writing and Reading Language and Society Introduction to Analysis II Critical Reasoning The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 3.0 1.0 4.0
Term 3 ECON 201 ENGL 103 IAS 399 PSCI 150	Principles of Microeconomics Analytical Writing and Reading Independent Study in IAS: Global Research Methods International Politics Language course Term Credits	Credits 4.0 3.0 3.0 4.0 4.0
Term 4 ECON 202 HIST 280 WMST 240	Principles of Macroeconomics History of Science I Women/Society Global Context Language course Science elective (See degree requirements) Term Credits	Credits 4.0 3.0 3.0 4.0 3.0 17.0
Term 5 COM 240 SOC 235	New Technologies In Commununication Sociology of Health Area-specific history course Language course Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 4.0 4.0 17.0
Term 6 HIST 285	Technology in Historical Perspective Area-specific history course Concentration distribution course (see degree requirements for list) Ethics elective Language course Term Credits	Credits 3.0 3.0 3.0 3.0 4.0 16.0
Term 7 HIST 221 IAS 360 SOC 345	Labor in the Age of Technology Spec Topics World Civilization	Credits 3.0 3.0

1	Sociology of the Environment	3.0
	Concentration distribution course (see degree requirements for list)	3.0
	Language course	3.0
	Term Credits	15.0
Term 8		Credits
ENGL 204	Post-Colonial Lit II	3.0
PHIL 335	Global Ethical Issues	3.0
	Two concentration distribution courses (see degree requirements for list)	6.0
•	Language course	3.0
•	Term Credits	15.0
Term 9		Credits
ENGL 300	Literature & Science	3.0
HIST 286	Exploration in Technology and Gender	3.0
	Two concentration distribution courses (see degree requirements for list)	6.0
i	Language course	3.0
·	Term Credits	15.0
Term 10		Credits
PSCI 371	Science, Technology, & Public Policy	3.0
	Concentration distribution course (see degree requirements for list)	3.0
•	Free elective	3.0
	Language course	3.0
	Term Credits	12.0
Term 11		Credits
IAS 359	Culture and Values	3.0
	Concentration distribution course (see degree requirements for list)	3.0
•	Free elective	3.0
•	Language course	3.0
	Term Credits	12.0
Term 12		Credits
•	Two concentration distribution courses (see degree requirements for list)	6.0
•	Free elective	3.0
	Language course	3.0
	Term Credits	12.0
	Total Credits (minimum)	182.0

International Area Studies

Bachelor of Arts Degree: 182.0 credits

International Business and Economics Concentration

Degree requirements (incoming students, 2009/2010)

General Requirements		49.0-52.0 Credits
ANTH 101	Cultural Diversity	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
LING 102	Language and Society	3.0
PHIL 105	Critical Reasoning	3.0
PSCI 150	International Politics	3.0
UNIV 101	The Drexel Experience	2.0
MATH 100+	Two mathematics courses	6.0 - 8.0
	Two science courses	6.0
<u> </u>	One ethics course	3.0

IAS Core Curriculum Requirements		12.0 Credits
IAS 359	Culture and Values	3.0
IAS 360	Special Topics in World Civilization	3.0.0
IAS 190	Global Research Methods	3.0
WMST 240	Women and Society in Global Context	3.0

Language Requirements

21.0 - 33.0 Credits

At least 4 language courses at the 300-level are required for graduation, with a minimum of 21 credits in at least one language.

Area-specific courses:

6.0 Credits

Students select at least two region specific HIS or PSCI courses approved by IAS.

International Business and Economics Requirements		31.0 Credits
BLAW 340	International Business Law	4.0
ECON 342	Economic Development	4.0
ENGL 360	Literature and Society	3.0
INTB 332 WI	Multinational Corporations	3.0
INTB 334	International Trade	4.0
INTB 338	Regional Studies in Economic Policies and International Business	4.0

PHIL 301	Business Ethics	3.0
SOC 260	Classical Social Theory	3.0
ANTH 310	Societies in Transition	3.0
or		
SOC 330	Developing Nations	

International Business and Economics Distribution Requirements*		33.0 Credits	
Students select	33.0 credits from at least 4 different disciplines:		
ANTH 312	Intercultural Behavior	3.0	
or			
COM 345	Intercultural Communication	3.0	
COM 360	International Communication	3.0	
COM 361	International Public Relations	3.0	
ECON 301	Microeconomics	4.0	
ECON 321	Macroeconomics	4.0	
ECON 326	Economic Ideas	4.0	
ENGL 325	Topics in World Literature	3.0	
HIST 290	Technology and World Community	3.0	
IAS 320	Building Global Bridges	3.0	
IAS 360	Special Topics in World Civilization **	3.0.0	
IAS 390	Special Topics in International Area Studies **	3.0	
INTB 336	International Money and Finance	3.0	
INTB 338 WI	Regional Studies in International Business and Economic Policy	3.0	
PHIL 331	Philosophy and Public Policy	3.0	
PSCI 255	International Political Economy	4.0	
PSCI 340	Politics of Developing Nations	3.0.	
PSCI 351	International Organizations	3.0.	
PSCI 352	Ethics and International Affairs	3.0.	
PSCI 357	European Union	3.0.	
MKTG 301 WI	Introduction to Marketing Management	5.0	
MKTG 322	Advertising and Advertising Management	4.0	
MKTG 351	Marketing for Non-Profit Organizations	4.0	
MKTG 357 WI	Global Marketing	4.0	
SOC 220	Wealth and Power	3.0	
SOC 310	Political Sociology	3.0	
SOC 340	Globalization	3.0	
SOC 435	Seminar: Organization of American States**	3.0	

^{*}Special topics courses with an international or relevant theme will be considered for course credit upon request and review.

^{**}Repeatable for credit.

Electives	6.0-14.0
Electives	Credits

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate. A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive.

BA International Area Studies
5 YR UG Co-op Concentration /International Business & Econ

Term 1 ANTH 101 ENGL 101 MATH 101 UNIV 101	Introduction to Cultural Diversity Expository Writing and Reading Introduction to Analysis I The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 2 ENGL 102 LING 102 MATH 102 PHIL 105 UNIV 101	Persuasive Writing and Reading Language and Society Introduction to Analysis II Critical Reasoning The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 3.0 1.0 4.0
Term 3 ECON 201 ENGL 103 IAS 190 PSCI 150	Principles of Microeconomics Analytical Writing and Reading Global Research Methods International Politics Language course Term Credits	Credits 4.0 3.0 3.0 4.0 4.0
Term 4 ECON 202 ENGL 204 WMST 240	Principles of Macroeconomics Post-Colonial Lit II Women/Society Global Context Language course Science elective (See degree requirements) Term Credits	Credits 4.0 3.0 3.0 4.0 3.0 17.0
Term 5	Area-specific history course Two concentration distribution courses (see degree requirements for list) Language course Science elective (See degree requirements) Term Credits	Credits 3.0 6.0 3.0 4.0 16.0
Term 6 INTB 334 SOC 260	International Trade Classical Social Theory Area-specific history course Ethics elective Term Credits	Credits 4.0 3.0 3.0 3.0 13.0
Term 7 ECON 342 IAS 360 PHIL 301 SOC 330	Economic Development Special Topics World Civilization Business Ethics Developing Nations/International Division of Labor	Credits 4.0 3.0 3.0 3.0

or		
ANTH 310	Society In Transition: Modern and Third World	3.0
٠	Language course Term Credits	3.0 16.0
	remi Credits	16.0
Term 8		Credits
BLAW 340	International Business Law	4.0
<u>INTB 332</u>	Multinational Corporations	4.0
	Two concentration distribution courses (see degree requirements for list)	6.0
	Language course	3.0
•	Term Credits	17.0
Term 9		Credits
ENGL 360	Literature and Society	3.0
INTB 338	Regional Studies in Economic Policies & International Business	4.0
i	Two concentration distribution courses (see degree	6.0
	requirements for list)	
•	Language course Term Credits	3.0 16.0
	Term Oreans	70.0
Term 10		Credits
	Two concentration distribution courses (see degree	6.0
•	requirements for list) Free elective	3.0
·	Language course	3.0
•	Term Credits	12.0
Term 11		Credits
IAS 359	Culture and Values	3.0
1	Concentration distribution course (see degree requirements for list)	3.0
•	Free elective	3.0
	Language course	3.0
	Term Credits	12.0
Term 12		Credits
	Two concentration distribution courses (see degree requirements for list)	6.0
•	Free elective	3.0
•	Language course	3.0
	Term Credits	12.0
	Total Credits (minimum)	182.0

International Area Studies

Bachelor of Arts Degree: 182.0 credits

Justice and Human Rights Concentration

Degree requirements (incoming students, 2009/2010)

General Requirements		49.0-52.0 Credits
ANTH 101	Cultural Diversity	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
LING 102	Language and Society	3.0
PHIL 105	Critical Reasoning	3.0
PSCI 150	International Politics	3.0
UNIV 101	The Drexel Experience	2.0
MATH 100+	Two mathematics courses	6.0 - 8.0
	Two science courses	6.0
	One ethics course	3.0

IAS Core Curriculum Requirements		12.0 Credits
IAS 359	Culture and Values	3.0
IAS 360	Special Topics in World Civilization	3.0.0
IAS 190	Global Research Methods	3.0
WMST 240	Women and Society in Global Context	3.0

21.0 - 33.0 Language Requirements

At least 4 language courses at the 300-level are required for graduation, with a minimum of 21 credits in at least one language.

6.0 Credits Area-specific courses:

Students select at least two region specific HIS or PSCI courses approved by IAS.

Justice and Human Rights Requirements		31.0 Credits
ANTH 410	Cultural Theory	3.0
ANTH 310	Societies in Transition	3.0
or		
SOC 330	Developing Nations	
ENGL 360	Literature and Society*	3.0

Credits

PHIL 241	Social and Political Philosophy	3.0
PHIL 335	Global Ethical Issues	3.0
PSCI 120	History of Political Thought	4.0
PSCI 329	Theories of Justice	3.0
PSCI 352	Ethics and International Affairs	3.0
PSCI 353	International Human Rights	3.0
SOC 260	Classical Social Theory	3.0

^{*}Justice and Human rights related topics.

Justice and Human Rights Distribution Requirements*		33.0 Credits
Students selec	et 33.0 credits from at least 4 different disciplines:	
AFAS 295	Special Topics in Africana Studies*	3.0
ANTH 312	Intercultural Behavior	3.0
or		
COM 345	Intercultural Communication	3.0
COM 360	International Communication	3.0
COM 380	Special Topics in Communication Theory: International Negotiation	3.0
ECON 321	Macroeconomics	4.0
ECON 342	Economic Development	4.0
ENGL 360	Literature and Society*	3.0
HIST 290	Technology and World Community	3.0
IAS 360	Special Topics in World Civilization*	3.0
IAS 390	Special Topics in International Area Studies*	3.0
PHIL 331	Philosophy and Public Policy	3.0
PHIL 341	Philosophy of the Environment	3.0
PHIL 391	Philosophy of Religion	3.0
PSCI 240	Comparative Government	3.0
PSCI 255	International Political Economy	4.0
PSCI 340	Politics of Developing Nations	3.0.
PSCI 351	International Organizations	3.0
PSCI 357	European Union	3.0.
PSCI 365	Politics, Law and Justice	3.0.
PSCI 367	International Law	3.0.
SOC 220	Wealth and Power	3.0
SOC 310	Political Sociology	3.0
SOC 435	Seminar: Organization of American States	3.0
SOC 344	Social Movements	3.0
SOC 346	Environmental Justice	3.0
WMST 280	Special Topics in Women's Studies***	3.0

^{*}Special topics courses with an international or relevant theme will be considered for course credit upon request and review.

^{***}Justice and Human rights related topics.

Electives	12.0-24.0
LIECTIVES	Credits

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

^{**}Repeatable for credit.

BA International Area Studies 5 YR UG Co-op Concentration /Justice and Human Rights

Term 1 ANTH 101 ENGL 101 MATH 101 UNIV 101	Introduction to Cultural Diversity Expository Writing and Reading Introduction to Analysis I The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 2 ENGL 102 LING 102 MATH 102 PHIL 105 UNIV 101	Persuasive Writing and Reading Language and Society Introduction to Analysis II Critical Reasoning The Drexel Experience Language course Term Credits	3.0 3.0 4.0 3.0 1.0 4.0
Term 3 ECON 201 ENGL 103 IAS 190 PSCI 150	Principles of Microeconomics Analytical Writing and Reading Global Research Methods International Politics Language course Term Credits	Credits 4.0 3.0 3.0 4.0 4.0 18.0
Term 4 ECON 202 ENGL 204 WMST 240	Principles of Macroeconomics Post-Colonial Literature II Women/Society Global Context Language course Science elective (See degree requirements) Term Credits	Credits 4.0 3.0 3.0 4.0 3.0 17.0
Term 5 PHIL 241 PSCI 352	Social & Political Philosophy Ethics and International Relations Area-specific history course Language course Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 4.0 3.0 16.0
Term 6 PSCI 120 SOC 260	History of Political Thought Classical Social Theory Language course Area-specific history course Ethics elective Term Credits	Credits 4.0 3.0 4.0 3.0 3.0 17.0
Term 7 IAS 360 PSCI 329 SOC 330	Special Topics in World Civilization Theories of Justice Developing Nations/Intenational Division of Labor	Credits 3.0 3.0 3.0

or		
ANTH 310	Society In Transition: Modern and Third World	3.0
	Concentration distribution course (see degree requirements for list)	3.0
•	Language course	3.0
•	Term Credits	15.0
Term 8		Credits
PHIL 335	Global Ethical Issues	3.0
PSCI 353	International Human Rights Two concentration distribution courses (see degree	3.0
	requirements for list)	6.0
i	Language course	3.0
	Term Credits	15.0
Term 9		Credits
ANTH 410	Cultural Theory	3.0
ENGL 360	Literature and Society	3.0
Ē	Two concentration distribution courses (see degree requirements for list)	6.0
	Language course	3.0
	Term Credits	15.0
Term 10		Credits
	Two concentration distribution courses (see degree	6.0
i	requirements for list) Free elective	3.0
i	Language course	3.0
•	Term Credits	12.0
Ta 44		
Term 11 IAS 359	Culture and Values	Credits 3.0
	Concentration distribution course (see degree requirements	3.0
•	for list) Free elective	3.0
•	Language course	3.0
•	Term Credits	12.0
Term 12		Credits
•	Two concentration distribution courses (see degree	6.0
	requirements for list)	
•	Free elective Language course	3.0 3.0
٠	Term Credits	3.0 12.0
		.2.0
	Total Credits (minimum)	182.0

International Area Studies

Bachelor of Arts Degree: 182.0 credits

Literature, Culture and the Arts Concentration

Degree requirements (incoming students, 2009/2010)

General Requi	irements	49.0-52.0 Credits
ANTH 101	Cultural Diversity	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
LING 102	Language and Society	3.0
PHIL 105	Critical Reasoning	3.0
PSCI 150	International Politics	3.0
UNIV 101	The Drexel Experience	2.0
MATH 100+	Two mathematics courses	6.0 - 8.0
	Two science courses	6.0
	One ethics course	3.0

IAS Core Curriculum Requirements		12.0 Credits
IAS 359	Culture and Values	3.0
IAS 360	Special Topics in World Civilization	3.0
IAS 190	Global Research Methods	3.0
WMST 240	Women and Society in Global Context	3.0

Language Requirements

21.0 - 33.0 Credits

At least 4 language courses at the 300-level are required for graduation, with a minimum of 21 credits in at least one language.

Area-specific courses:

6.0 Credits

Students select at least two region specific HIS or PSCI courses approved by IAS.

Literature, Culture and the Arts Requirements		30.0 Credits
ANTH 212	Topics in World Ethnography	3.0
ANTH 312	Intercultural Behavior	3.0
or		
COM 345	Intercultural Communication	3.0
ANTH 410	Cultural Theory	3.0

ENGL 202 WI	Romanticism to Modernism	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
ENGL 360	Literature and Society*	3.0
MUSC 331	World Musics	3.0
PHIL 231	Aesthetics	_
	Language course (level 331, 371, 431, or 471)	3.0
*As appropriate	to the major.	_

Literature Cultu	ure and the Arts Distribution Requirements*	33.0 Credits
Students select	33.0 credits from at least 4 different disciplines:	
ANTH 210	Worldview: Science, Religion, Magic	3.0
ANTH 220	Age in Cross-Cultural Perspective	3.0
COM 210	Theory of Communication	3.0
COM 342	English Worldwide	3.0
COM 355	Ethnography of Communication	3.0
COM 360	International Communication	3.0
COM 390 WI	Global Journalism	3.0
ENGL 200 WI	Classical to Medieval Literature	3.0
ENGL 201	Renaissance to the Enlightenment	3.0
ENGL 203	Post-Colonial Literature I: Africa/Asia/Caribbean/Japan/Middle East	3.0
ENGL 300	Literature and Science	3.0
ENGL 335	Mythology	3.0
ENGL 355	Women in Literature	3.0
ENGL 323	Literature and Other Arts**	3.0
ENGL 325	Topics in World Literature	3.0
IAS 320	Building Global Bridges	3.0
IAS 360	Special Topics in World Civilization ***	3.0.0
IAS 390	Special Topics in International Area Studies ***	3.0
MUSC 130	Introduction to Music	3.0
NFS 445	Perspectives on World Nutrition	3.0
PHIL 201	History of Western Philosophy I	3.0
PHIL 211	Metaphysics	3.0
PHIL 241	Social and Political Philosophy	3.0
PHIL 391	Philosophy of Religion	3.0
PSCI 120	History of Political Thought	4.0
PSCI 323	Comparative Political Thought	3.0
	Language course level (331, 371, 431, or 471)	3.0

^{*}Special topics courses with an international or relevant theme will be considered for course credit upon request and review.

^{***}Repeatable for credit.

Electives	11.0-23.0
Electives	Credits

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation.

^{**}As appropriate to the major.

BA International Area Studies 5 YR UG Co-op Concentration /Literature, Culture & Arts

Term 1 ANTH 101 ENGL 101 MATH 101 UNIV 101	Introduction to Cultural Diversity Expository Writing and Reading Introduction to Analysis I The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 2 ENGL 102 LING 102 MATH 102 PHIL 105 UNIV 101	Persuasive Writing and Reading Language and Society Introduction to Analysis II Critical Reasoning The Drexel Experience Language course Term Credits	Credits 3.0 3.0 4.0 3.0 1.0 4.0
Term 3 ECON 201 ENGL 103 IAS 190 PSCI 150	Principles of Microeconomics Analytical Writing and Reading Global Research Methods International Politics Language course Term Credits	Credits 4.0 3.0 3.0 4.0 4.0 18.0
Term 4 ANTH 212 ECON 202	Topics in World Ethnography Economics II Ethics elective Language course Science elective (See degree requirements) Term Credits	Credits 3.0 4.0 3.0 4.0 3.0 17.0
Term 5 MUSC 331	World Musics Area-specific course (See degree requirements) Language course Lit, Culture & Arts distribution course (See requirements) Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 4.0 3.0 4.0 17.0
Term 6 ENGL 360 PHIL 231 ARTH 101 Or ARTH 103 Or	Literature and Society Aesthetics History of Art II: Ancient to Medieval History of Art III: Early Mode	Credits 3.0 3.0 3.0 3.0
ARTH 102	History of Art II: Renaissance Language course Lit, Culture & Arts distribution course (See requirements) Term Credits	3.0 4.0 3.0 16.0

Term 7 COM 345 Or	Intercultural Communication	Credits 3.0
ANTH 312	Approaches to Intercultural Behavior	3.0
•	Area-specific course (See degree requirements)	3.0
•	Language course	3.0 6.0
•	Lit, Culture & Arts distribution courses (See requirements) Term Credits	6.0 15.0
	Term Credits	15.0
Term 8		Credits
<u>ANTH 410</u>	Cultural Theory	3.0
ENGL 204	Post-Colonial Literature II	3.0
ENGL 360	Literature and Society	3.0
•	Lit Culture & Arte distribution course (Con requirements)	3.0
•	Lit, Culture & Arts distribution course (See requirements) Term Credits	3.0 <i>15.0</i>
	Term Credits	13.0
Term 9		Credits
ENGL 202	Romanticism to Modernism	3.0
<u>IAS 360</u>	Civilization	3.0
PHIL 335	Global Ethical Issues	3.0
•	Language course	3.0
•	Lit, Culture & Arts distribution course (See requirements) Term Credits	3.0 15.0
	Term Creaks	15.0
Term 10		Credits
WMST 240	Women/Society Global Context	3.0
	Free elective	3.0
•	Language course	3.0
•	Lit, Culture & Arts distribution courses (See requirements)	3.0
	Term Credits	12.0
Term 11		Credits
IAS 359	Culture & Values	3.0
1	Free elective	3.0
	Language course	3.0
	Lit, Culture & Arts distribution course (See requirements)	3.0
	Term Credits	12.0
Term 12		Credits
	Free elective	3.0
•	Language course	3.0
•	Lit, Culture & Arts distribution courses (See requirements)	6.0
•	Term Credits	12.0
	Total Credits (minimum)	182.0
		10210

Minor in International Area Studies

The minor requires 24 credits. Language study through level 201 is a prerequisite for the minor.

Prerequisite: completion of Level 201 in a language

Core requiren	nents	
IAS 360	Civilization	3.0
WMST 240	Women and Society in a Global Context	3.0
	Students select one region specific HIS or PSCI courses approved by IAS.*	3.0

*Typically an r student is stud	egion-specific history course is determined by what lan lying.	guage the
International A	rea Studies (IAS) electives	15.0
	15.0 credits of IAS electives, which may include any languation bove and/or any courses listed below:.	age courses at
AFAS 295	Special Topics in Africana Studies	3.0
ANTH 212	Topics in World Ethnography	3.0
ANTH 220	Aging in Cross-Cultural Perspectives	3.0
ANTH 310	Societies in Transition	3.0
ANTH 312	Approaches to Intercultural Behavior	3.0
ANTH 410	Cultural Theory	3.0
BIO 264	Ethnobiology	3.0
BLAW 340	International Business Law	4.0
COM 342	English Worldwide	3.0
COM 345	Intercultural Communication	3.0
COM 355	Ethnography of Communication	3.0
COM 360	International Communication	3.0
COM 361	International Public Relations	3.0
COM 390	Global Journalism	3.0
ECON 342	Economic Development	4.0
ENGL 203	Post-Colonial Literature I: Africa/Asia/Caribbean/Japan/Middle East	3.0
ENGL 204	Post-Colonial Literature II: Africa/Asia/Caribbean/Japan/Middle East	3.0
ENGL 323	Literature and the Other Arts*	3.0
ENGL 325	Topics in World Literature	3.0
ENGL 360	Literature and Society*	3.0
HIST 290	Technology and the World Community	3.0
IAS 320	Building Global Bridges	3.0
IAS 390	Special Topics in International Area Studies	3.0
INTB 332 WI	Multinational Corporations	4.0
INTB 334	International Trade	4.0
INTB 336	International Money and Finance	4.0
MUSC 331	World Musics	3.0

NFS 345 WI	Foods and Nutrition of World Cultures	3.0
NFS 446	Perspectives on World Nutrition	3.0
PHIL 335	Global Ethical Issues	3.0
PSCI 120	History of Political Thought	4.0
PSCI 240	Comparative Government	4.0
PSCI 255	International Political Economics	4.0
PSCI 323	Comparative Political Thought	3.0
PSCI 340	Politics of Developing Nations	3.0
PSCI 351	International Organizations	3.0
PSCI 352	Ethics and International Relations	3.0
PSCI 353	International Human Rights	3.0
PSCI 357	European Union	3.0
PSCI 367	International Law	3.0
SOC 220	Wealth and Power	3.0
SOC 330	Developing Nations and the International Division of Labor	3.0
SOC 344	Social Movements	3.0
SOC 346	Environmental Justice	3.0
SOC 435	Seminar: Organization of American States	3.0
WMST 280	Special Topics in Women's Studies*	3.0

^{*}These courses must have an international focus.

 $^{^{\}star\star}$ Special topics courses with an international or relevant theme will be considered for course credit upon request and review.

Minors in Modern Languages

Minors in Arabic, Chinese, French, German, Italian, Japanese, Russian, and Spanish are offered. All courses are oral-intensive, with additional hours required in the Language Laboratory, and include individual oral examinations at the end of each term.

In Western languages, enrollments are limited to 15 to 18 students in the first three years of study; fourth-year courses use a seminar format, with a usual enrollment of four to eight students. Chinese, Japanese, Russian and Arabic are taught in a tutorial or "self-instructional" format, with enrollments limited to three to six students. Examinations in these languages are primarily oral and are administered by external examiners appointed by the University. All instructors in Chinese, Japanese, Russian, and Arabic and most instructors in Western languages are native speakers.

Language study is open to all students in the University, and validation of minimal language competence is required for co-operative education placement abroad in countries where English is not the national language. Study for two consecutive terms or through level 103 is the minimum requirement for the BA degree, but additional language course work is required by most departments offering this degree.

Students are placed in language courses in accordance with language placement testing administered during freshman orientation and at the beginning of the fall term. Students who do not take advantage of this option must comply with the department's enrollment guidelines.

Certification of Proficiency

The University offers an advanced-level Certification of Proficiency in Western language, based on successful completion of a series of written examinations and an "advanced" rating on the ACTFL oral examination.

Language Minors

Requirements, Western languages

24 credits of language study above the 103 level	24.0
Certification of Proficiency	
Minor thesis in the target language (3.0-4.0 credits possible)	
Oral defense of the minor thesis	

Course options (subject to placement level)

201-203	Advanced Conversation and Composition
311-312; 411	Stylistics; Advanced Stylistics
332; 333	Literature; Advanced Studies in Literature
351	Business and the Professions
451	Advanced Topics in Business and Professions: European Union
371; 471	Civilization; Advanced Studies in Civilization

Requirements, non-western languages

24 credits of language study above the 103 level	24.0
Minor thesis in the target language (3.0-4.0 credits possible)	
Oral defense of the minor thesis	

Course options (subject to placement level)

201-203	Advanced reading, writing, and speaking, Levels IV-VI
301-303	Stylistics, Levels VII-IX
399	Advanced Independent Study
411	Introduction to Stylistics
431	Introduction to Literature
451	Introduction to Business
FREN 451	Special Studies Advanced Business/Professional French: European Union
RUSS 499	Advanced Seminar in Russian Literature

^{*}Special topics courses may be repeated for credit.

Mathematics

The Mathematics Department takes pride in offering a balanced and flexible curriculum. Three very different kinds of skills are emphasized in the mathematics major:

1. Abstract Reasoning

All students majoring in mathematics take at least five courses that emphasize abstract reasoning. Examples of courses in this category include Abstract Algebra (MATH 331) and Modern Analysis (MATH 401) Students read and write proofs, and graduate well prepared to enter a PhD program in mathematics.

2. Computing

All students majoring in mathematics take a series of seven courses that emphasize computing. An example of a course in this category is Numerical Analysis I with Mat lab (MATH 300). This emphasis on computing is one of the distinctive features of the Mathematics Program at Drexel, and provides students with a competitive advantage in the job market.

3. Mathematical Modeling

All students majoring in mathematics take multidisciplinary courses that focus on the interplay between mathematics and an area of application. Examples of courses in this category are Mathematical Finance (MATH 449), Cryptography (MATH 475), Mathematics of Medical Imaging (MATH 480) and Actuarial Mathematics (MATH 279).

Students often use electives to focus on an area of personal interest. The Department of Mathematics encourages students to minor in a subject where mathematics is applied. The Department provides an advisor to assist students in selecting electives and planning career paths.

Mathematics

Bachelor of Arts: 180.0 credits

Degree requirements (incoming students, 2009/2010)

General education requirements*		55.0 Credits
COM 230	Public Speaking	3.0
CS 131	Computer Programming A	3.0
CS 132	Computer Programming B	3.0
CS 133	Computer Programming C	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Humanities and Fine Arts electives	6.0
	International Studies electives	6.0
	Science electives	8.0
	Social and Behavioral Sciences electives	6.0
	Studies in Diversity electives	6.0
Free electives	s (depending upon other options selected)	64.0 Credits
	Free electives	64.0
Core mathem MATH 121	atics requirements Calculus I *	27.0 Credits 4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 210	Differential Equations	4.0
MATH 220	Introduction to Mathematical Reasoning	3.0
Additional ma	athematics requirements	
MATH 331	athematics requirements Abstract Algebra I	
MATH 331 or	Abstract Algebra I	Credits 4.0
MATH 331		3.0 - 4.0 Credits 4.0 3.0
MATH 331 or MATH 401	Abstract Algebra I	Credits 4.0
MATH 331 or MATH 401 Students com	Abstract Algebra I Elements of Modern Analysis I	4.0 3.0 9.0
MATH 331 or MATH 401 Students consequences:	Abstract Algebra I Elements of Modern Analysis I nplete at least one of the following depth of knowledge	4.0 3.0 9.0 11.0 Credits

140

MATH 321	Vector Calculus	4.0
MATH 322	Complex Variables	4.0
MATH 402	Elements of Modern Analysis II	3.0
or		
MATH 300	Numerical Analysis I with MATLAB	4.0
MATH 301	Numerical Analysis II	3.0
MATH 305	Optimization Theory	4.0
or		
MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0
MATH 318	Statistical Software	3.0
or		
MATH 205	Survey of Geometry	3.0
MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0

Students complete Four (4) additional mathematics courses

12.0 Credits

Students either select these courses from the list of MATH courses in for the BS in Mathematics or from additional mathematics electives, provided that approval is obtained *in advance* from the undergraduate mathematics advisor. The following courses **cannot** be counted toward the BA in Mathematics: MATH 004, 100, 101. 102. 110. 119. 180. 181. 182. 183, and 239.

Students complete three (3) additional courses is fields related to mathematics

9.0 Credits

Students must complete three additional courses in fields related to mathematics such as science, engineering, economics, finance, decision sciences, and computer science. A list of approved courses will be maintained by the undergraduate mathematics advisor. These three courses are in addition to the two science courses required as part of the General Education requirements, as well as the CS 131-133 required sequence.

* Categories of Electives:

Humanities and arts electives

Designated courses in art, art history, communication studies, foreign languages (300-level or above), history, literature, music, philosophy, religion, and theatre arts.

International electives

Designated courses in anthropology, art history, history, literature, music, politics and sociology. Courses with an international focus may be used to fulfill requirements in other categories as well.

Science electives

Students select two courses from chemistry, biology or physics. both courses may be in the same subject or they may be in different subject areas.

Social and behavioral sciences electives

Designated courses in anthropology, economics, international relations, history, politics, psychology and sociology.

Studies in diversity electives

Designated courses in Africana studies, anthropology, communication, English, history, Judaic studies, linguistics, music, sociology and women's studies.

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

^{*} Math majors must pass Math 121 with a grade of B or higher.

BA Mathematics, 4-Year Non-Co-op 4 YR UG No Co-op Concentration

Term 1 CS 131 ENGL 101 MATH 121 UNIV 101	Computer Programming A Expository Writing and Reading Calculus I The Drexel Experience Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 2 CS 132 ENGL 102 MATH 122 UNIV 101	Computer Programming B Persuasive Writing and Reading Calculus II The Drexel Experience Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 4.0 1.0 4.0 15.0
Term 3 CS 133 ENGL 103 MATH 123 MATH 220	Computer Programming C Analytical Writing and Reading Calculus III Introduction to Mathematical Reasoning Social and Behavioral Sciences elective Term Credits	Credits 3.0 3.0 4.0 3.0 3.0 16.0
Term 4 COM 230 MATH 200 MATH 201	Techniques of Speaking Multivariate Calculus Linear Algebra Diversity studies elective Free elective Term Credits	Credits 3.0 4.0 4.0 3.0 3.0 17.0
Term 5 MATH 210	Differential Equations Free electives Humanities/Fine Arts elective Course in a field related to Math (See degree requirements) Term Credits	Credits 4.0 6.0 3.0 3.0 16.0
Term 6	Free electives International studies elective MATH elective from BS in Mathematics requirements (or see degree list) Social and Behavioral Sciences elective Term Credits	Credits 6.0 3.0 3.0 3.0 15.0
Term 7 MATH 401 or MATH 331	Elements of Modern Analysis I Abstract Algebra I Diversity studies elective Free electives	Credits 3.0 4.0 3.0 6.0

	International studies elective Term Credits	3.0 15.0
Term 8	Free electives MATH elective from BS in Mathematics requirements (or see degree list) Course in a field related to Math (See degree requirements) MATH course selected from sequence option (see degree	Credits 6.0 3.0 3.0
	requirements) Term Credits	3.0 <i>15.0</i>
Term 9	Free electives MATH elective from BS in Mathematics requirements (or see degree list) Course in a field related to Math (See degree requirements) Term Credits	9.0 3.0 3.0 15.0
Term 10	Free electives Humanities/Fine Arts elective MATH course selected from sequence option (see degree requirements) Term Credits	9.0 3.0 3.0 15.0
Term 11	Free electives MATH course selected from sequence option (see degree requirements) Term Credits	Credits 10.0 3.0 13.0
Term 12	Free electives MATH elective from BS in Mathematics requirements (or see degree list) Term Credits	Credits 10.0 3.0 13.0
	Total Credits (minimum)	180.0

Mathematics

Bachelor of Science Degree: 180.0 credits

Degree requirements (incoming students, 2009/2010)

Genera	il educa	ition red	quirements
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CS 121	Computational Lab I	1.0
CS 122	Computational Lab II	1.0
CS 123	Computational Lab III	1.0
CS 131	Computer Programming A	3.0
CS 132	Computer Programming B	3.0
BIO	Any Biology course	4.0
CHEM	Any Chemistry course	4.0
PHYS	Any Physics course	4.0
COM 230	Public Speaking	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Humanities electives	9.0
	Social sciences electives	18.0
	Free electives	38.0

Mathematics requirements

MATH 121	Calculus I *	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 210	Differential Equations	4.0
MATH 220	Introduction to Mathematical Reasoning	3.0
MATH 221	Discrete Mathematics	3.0
MATH 300	Numerical Analysis I with MATLAB	4.0
MATH 301	Numerical Analysis II	3.0
MATH 305	Optimization Theory	4.0
MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0
MATH 316	Symbolic Software	3.0
MATH 318	Statistical Software	3.0
MATH 321	Vector Calculus	4.0
MATH 322	Complex Variables	4.0
MATH 323	Partial Differential Equations	4.0
MATH 331	Abstract Algebra I	4.0
MATH 332	Abstract Algebra II	3.0
MATH 401	Elements of Modern Analysis I	3.0
MATH 402	Elements of Modern Analysis II	3.0

^{*} Math majors must pass Math 121 with a grade of B or higher.

Recommended Plan Of Study

BS Mathematics, 4-year Co-Op 4 YR UG Co-op Concentration

Term 1 BIO 102 CS 121 CS 131 ENGL 101 MATH 121 UNIV 101	Biology I: Cells and Tissues Computation Lab I Computer Programming A Expository Writing and Reading Calculus I The Drexel Experience Term Credits	Credits 4.0 1.0 3.0 3.0 4.0 1.0
Term 2 CHEM 101 CS 122 CS 132 ENGL 102 MATH 122 UNIV 101	General Chemistry I Computation Lab II Computer Programming B Persuasive Writing and Reading Calculus II The Drexel Experience Term Credits	Credits 3.5 1.0 3.0 3.0 4.0 1.0
Term 3 CS 123 ENGL 103 MATH 123 MATH 220 PHYS 111	Computation Lab III Analytical Writing and Reading Calculus III Introduction to Mathematical Reasoning Physics I Term Credits	Credits 1.0 3.0 4.0 3.0 4.5
Term 4 COM 230 MATH 200 MATH 201	Techniques of Speaking Multivariate Calculus Linear Algebra Social science electives Term Credits	Credits 3.0 4.0 4.0 6.0 17.0
Term 5 MATH 210 MATH 221 MATH 321	Differential Equations Discrete Mathematics Vector Calculus Humanities elective Social science elective Term Credits	Credits 4.0 3.0 4.0 3.0 3.0 17.0
Term 6 MATH 300 MATH 311 MATH 323	Numerical Analysis I Probability and Statistics I Partial Differential Equations Social science elective Term Credits	Credits 4.0 4.0 4.0 3.0 15.0
Term 7 MATH 305 MATH 312	Introduction to Optimization Theory Probability and Statistics II Free elective Humanities elective	Credits 4.0 4.0 3.0 3.0

	Social science elective Term Credits	3.0 17.0
Term 8 MATH 322 MATH 401	Complex Variables Elements of Modern Analysis I Free elective Humanities elective Social science elective Term Credits	4.0 3.0 3.0 3.0 3.0 3.0
Term 9 MATH 318 MATH 402	Mathematical Applications of Statistical Software Elements of Modern Analysis II Free electives Term Credits	3.0 3.0 7.0 13.0
Term 10 MATH 316 MATH 331	Mathematical Applications of Symbolic Software Abstract Algebra I Free electives Term Credits	Credits 3.0 4.0 7.0 14.0
Term 11 MATH 301 MATH 332	Numerical Analysis II Abstract Algebra II Free electives Term Credits	7.0 2.0 3.0 7.0 13.0
Term 12	Free electives Term Credits	Credits 12.0 12.0
	Total Credits (minimum)	181.0

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Recommended Plan Of Study

BS Mathematics, 4-Year Non-Co-op 4 YR UG No Co-op Concentration

Term 1 BIO 102 CS 121 CS 131 ENGL 101 MATH 121 UNIV 101	Biology I: Cells and Tissues Computation Lab I Computer Programming A Expository Writing and Reading Calculus I The Drexel Experience Term Credits	Credits 4.0 1.0 3.0 3.0 4.0 1.0
Term 2 CHEM 101 CS 122 CS 132 ENGL 102 MATH 122 UNIV 101	General Chemistry I Computation Lab II Computer Programming B Persuasive Writing and Reading Calculus II The Drexel Experience Term Credits	Credits 3.5 1.0 3.0 3.0 4.0 1.0
Term 3 CS 123 ENGL 103 MATH 123 MATH 220 PHYS 111	Computation Lab III Analytical Writing and Reading Calculus III Introduction to Mathematical Reasoning Physics I Term Credits	Credits 1.0 3.0 4.0 3.0 4.5 15.5
Term 4 COM 230 MATH 200 MATH 201	Techniques of Speaking Multivariate Calculus Linear Algebra Social science electives Term Credits	Credits 3.0 4.0 4.0 6.0 17.0
Term 5 MATH 210 MATH 221 MATH 321	Differential Equations Discrete Mathematics Vector Calculus Humanities elective Social science elective Term Credits	Credits 4.0 3.0 4.0 3.0 3.0 17.0
Term 6 MATH 300 MATH 311	Numerical Analysis I Probability and Statistics I Free elective Humanities elective Social science elective Term Credits	Credits 4.0 4.0 3.0 3.0 3.0 17.0
Term 7 MATH 322 MATH 331	Complex Variables Abstract Algebra I Free elective	Credits 4.0 4.0 3.0

•	Humanities elective	3.0
	Social science elective Term Credits	3.0 17.0
Term 8		Credits
MATH 312 MATH 316	Probability and Statistics II	4.0
MATH 332	Mathematical Applications of Symbolic Software	3.0
MATTI 332	Abstract Algebra II	3.0
•	Free elective	3.0
ı	Social science elective Term Credits	3.0 16.0
	Term Credits	16.0
Term 9		Credits
MATH 301	Numerical Analysis II	3.0
MATH 305	Introduction to Optimization Theory	4.0
i	Free electives	6.0
	Term Credits	13.0
Term 10		Credits
MATH 401	Elements of Modern Analysis I	3.0
MATH 401	Elements of Modern Analysis I Free electives	3.0 9.0
MATH 401		
MATH 401 Term 11	Free electives	9.0
	Free electives Term Credits	9.0 12.0
Term 11	Free electives	9.0 12.0 Credits
Term 11	Free electives Term Credits Elements of Modern Analysis II	9.0 12.0 Credits 3.0
Term 11 MATH 402	Free electives Term Credits Elements of Modern Analysis II Free electives	9.0 12.0 Credits 3.0 9.0 12.0
Term 11	Free electives Term Credits Elements of Modern Analysis II Free electives Term Credits	9.0 12.0 Credits 3.0 9.0 12.0 Credits
Term 11 MATH 402 Term 12	Free electives Term Credits Elements of Modern Analysis II Free electives Term Credits Mathematical Applications of Statistical Software	9.0 12.0 Credits 3.0 9.0 12.0
Term 11 MATH 402 Term 12 MATH 318	Free electives Term Credits Elements of Modern Analysis II Free electives Term Credits Mathematical Applications of Statistical Software Partial Differential Equations	9.0 12.0 Credits 3.0 9.0 12.0 Credits 3.0 4.0
Term 11 MATH 402 Term 12 MATH 318	Free electives Term Credits Elements of Modern Analysis II Free electives Term Credits Mathematical Applications of Statistical Software	9.0 12.0 Credits 3.0 9.0 12.0 Credits 3.0

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Recommended Plan Of Study

BS Mathematics, 5-Year Co-op 5 YR UG Co-op Concentration

Term 1 BIO 102 CS 121 CS 131 ENGL 101 UNIV 101 MATH 121 Term 2 CHEM 101	Biology I: Cells and Tissues Computation Lab I Computer Programming A Expository Writing and Reading The Drexel Experience Calculus I Term Credits	Credits 4.0 1.0 3.0 3.0 1.0 4.0 76.0 Credits 3.5
CS 122 CS 132 ENGL 102 MATH 122 UNIV 101	General Chemistry I Computation Lab II Computer Programming B Persuasive Writing and Reading Calculus II The Drexel Experience Term Credits	1.0 3.0 3.0 4.0 1.0
Term 3 CS 123 ENGL 103 MATH 123 MATH 220 PHYS 111	Computation Lab III Analytical Writing and Reading Calculus III Introduction to Mathematical Reasoning Physics I Term Credits	Credits 1.0 3.0 4.0 3.0 4.5
Term 4 COM 230 MATH 200 MATH 201	Techniques of Speaking Multivariate Calculus Linear Algebra Social science electives Term Credits	Credits 3.0 4.0 4.0 6.0 17.0
Term 5 MATH 210 MATH 221 MATH 321	Differential Equations Discrete Mathematics Vector Calculus Humanities elective Social science elective Term Credits	Credits 4.0 3.0 4.0 3.0 3.0 17.0
Term 6 MATH 311 MATH 331	Probability and Statistics I Abstract Algebra I Humanities elective Social science elective Term Credits	Credits 4.0 4.0 3.0 3.0 14.0
Term 7 MATH 312 MATH 332	Probability and Statistics II Abstract Algebra II Free elective Humanities elective	Credits 4.0 3.0 3.0 3.0

MATH 401 Elements of Modern Analysis I Free electives Social science elective Term Credits Term 9 MATH 305 Introduction to Optimization Theory	3.0 3.0 6.0 3.0
MATH 305 Introduction to Optimization Theory	5.0
Free electives	its 4.0 3.0 6.0
MATH 322 Complex Variables Free electives	its 4.0 4.0 6.0
MATH 323 Partial Differential Equations Free electives	its 3.0 4.0 6.0 3.0
Free electives 1	its 3.0 2.0 5.0

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Minor in Mathematics

The minor in mathematics consists of five required courses and at least 18 credits of electives from a specified group of elective courses specified below.

Required Courses

MATH 121	Calculus I *	4.0
MATH 122	Calculus II*	4.0
MATH 123	Calculus III*	4.0
MATH 200	Multivariate Calculus*	4.0
MATH 201	Linear Algebra*	4.0
	Mathematics minor electives (Selected from the list below)	18.0

Mathematics minor electives**

Students select 18 credits from the following courses:

MATH 210	Differential Equations	4.0
MATH 220	Introduction to Mathematical Reasoning	3.0
MATH 221	Discrete Mathematics	3.0
MATH 235	Math Competition Problem Solving Seminar	.5 - 4.0
MATH 285	Differential Equations II	3.0
MATH 291	Complex and Vector Analysis for Engineers †	4.0
MATH 300	Numerical Analysis	4.0
MATH 301	Numerical Analysis II	3.0
MATH 305	Introduction to Optimization Theory	4.0
MATH 311	Probability and Statistics I	4.0
MATH 312	Probability and Statistics II	4.0
MATH 320	Actuarial Mathematics	3.0
MATH 321	Vector Calculus	4.0
MATH 322	Complex Variables	4.0
MATH 323	Partial Differential Equations	4.0
MATH 331	Abstract Algebra I	4.0
MATH 332	Abstract Algebra II	3.0
MATH 401	Elements of Modern Analysis I	3.0
MATH 402	Elements of Modern Analysis II	3.0
MATH 410	Scientific Data Analysis I	3.0
MATH 411	Scientific Data Analysis II	3.0
MATH 422	Introduction to Topology	4.0
MATH 449	Mathematical Finance	3.0
MATH 450	Introduction to Graph Theory	3.0
MATH 475	Cryptography	3.0

^{*}Or equivalent course from the list of approved electives.

^{**}A request form is available for any other mathematics courses upon the written approval prior to the beginning of the quarter in which the course is to be offered.

Students should contact the department's academic advisor, Professor Marna Mozeff for further information. Professor Mozeff can be reached at 215.895.6691 or marna.a.mozeff@drexel.edu.

 \dagger Students who take MATH 291 cannot also count MATH 321 or MATH 322 toward their minor.

Nutrition and Foods

About the Degree

The BS in Nutrition and Foods requires four years of study and the completion of at least 180 credits. The curriculum is designed to provide a sound basis for careers in dietetics and the application of the principles of nutrition and food science to the nutritional care of individuals and groups—such as in school food service or community nutrition—or to provide a sound basis for careers in the food and pharmaceutical industries.

The study of the biochemical nature of nutrients and foods, their interaction with the environment, and their eventual metabolic fate is a strong career path for more research-minded students and provides a unique base for graduate study.

About the Nutrition Program

Dietetics is the practical application of nutrition in the prevention and treatment of disease. Dietetics is an exciting and challenging profession because there are many diseases that are related to nutrition, such as heart disease, high blood pressure, stroke, cancer, diabetes and obesity.

The nutrition program at Drexel University is referred to as a Didactic Program in Dietetics (DPD) because we provide classroom training for students who want to become Registered Dietitians. Our Didactic Program in Dietetics is currently granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association (ADA -120 S Riverside Plaza, Suite 2000, Chicago, IL 60606, 800-877-1600 x5400, www.eatright.org). The American Dietetic Association is the nation's largest organization of food and nutrition professionals, most of whom are Registered Dietitians.

To become a Registered Dietitian, students must complete a:

- Bachelor's degree with course work approved by ADA's Commission on Accreditation for Dietetics Education. Coursework typically includes food and nutrition sciences, chemistry, biochemistry, physiology, microbiology, community nutrition, nutrition education, foodservice systems management and business.
- An accredited, supervised practice program, also called a dietetic internship, at a health-care facility, community agency or foodservice corporation. The internship provides at least 1200 hours of hands-on training.
- Pass a national examination administered by the Commission on Dietetic Registration.

After successfully completing the BS program in Nutrition and all DPD-required courses with a C or better, students will receive a BS degree and also a Verification Statement. The Verification Statement is a certificate documenting completion of an approved/accredited Didactic Program in Dietetics. Students need both a Bachelor's degree and a Verification Statement to start a supervised practice program or internship.

During the senior year, most students will apply for admission into a dietetic internship. Most dietetic internships last 8 to 9 months. To have a good chance of getting accepted into a dietetic internship, students should do the following:

- Maintain a cumulative GPA greater than 3.0 (this includes college courses regardless of where taken).
- Work several hundred hours in dietetics-related work and volunteer experience (especially in the food and nutrition departments at hospitals and nursing homes and in community programs such as WIC).
- Participate in activities that demonstrate leadership.

Mission, Goals, and Outcome Measures

The mission of the Drexel University Didactic Program in Dietetics is to integrate a foundation in the nutrition sciences with courses in the humanities to provide the knowledge, skills, and professional values (such as ethics) needed for successful entry into dietetic internships, graduate school, and/or dietetics employment. The learning environment is structured to allow students opportunities for experiential learning, including co-operative education, participation in research, and use of current technologies.

GOAL 1

To provide quality didactic instruction and learning experiences to prepare graduates to be accepted into dietetic internships and graduate schools, and/or work in the field of dietetics.

- Students obtain the knowledge, skills, and professional values specified by CADE.
- 2. On senior program evaluation responses, 90% of the knowledge and skill statements will be selected as competent.
- 3. 50% of juniors will do co-op.
- 4. 80% of seniors will participate in a research project.
- 5. On average, 75% of graduating students will apply to an accredited dietetic internship or graduate school.
- 6. On average, 80% of students who apply to internships, and 80% who apply to graduate school, are accepted.
- 7. Of those graduates seeking employment in nutrition and food-related careers, 80% will be employed within 6 months of program completion.
- 8. On surveys to internship directors, graduate school advisors, and employers, the mean rating of each of 10 learning outcomes will meet or exceed the rating of "3" (satisfactory) or better.
- On surveys to students 1 year after graduation, the mean rating of each of 10 learning outcomes will meet or exceed the rating of "3" (satisfactory) or better.

GOAL 2

To prepare graduates who are accepted into accredited internship programs to become competent entry-level dietitians.

- Drexel alumni achieve over a 5-year period a pass rate of at least 80% on the RD exam.
- On surveys to employers of internship graduates, the mean rating of each of 10 learning outcomes will meet or exceed the rating of "3" (satisfactory) or better.

GOAL 3

Through recruitment efforts, encouragement, motivation, and support, faculty and staff will increase the number of students and the diversity of students who enter and complete the didactic program in dietetics.

- 1. The number of students registered in 300 and 400 level NFS courses is 12 or higher.
- 2. At least 10% of juniors and seniors will be from underrepresented groups.
- 3. At least 90% of the students enrolled in the didactic program two years before completion of the DPD will complete the program.
- Senior students indicate on surveys "satisfactory" or better scores with respect to the encouragement and support provided by the program's academic advisement staff.
- 5. Senior students rate the overall quality of 90% of their DPD required courses as satisfactory (3) or better.



Nutrition and Foods

Admission Requirements

Drexel takes into consideration a number of criteria when determining admission, including the applicant's application, transcripts, courses in progress, two recommendations, standardized test scores, essay, and special interests (list of extracurricular activities, employment, etc.). Applicants to the Nutrition and Foods program must have completed four years of high school mathematics (algebra I and II, geometry, and trigonometry) and two years of a laboratory science (biology, chemistry, or physics). To be considered as a transfer student, candidates should have completed a minimum of 24 college credits. Drexel operates on a rolling admission basis, which means that students will be notified about the admission decision as soon as possible after their files are complete.

Visit the Admissions web site for more information and to apply online.

Graduation Requirements

To receive a BS in Nutrition and Foods, students in the program must complete a Plan of Study of all required courses and enough elective courses to total at least 180.0 credits. An overall GPA of 2.0 or higher for all coursework undertaken at Drexel University must be earned to receive a BS A "C" or better is necessary in all courses required by the Didactic Program in Nutrition in order to receive a Verification Statement.

For the current academic calendar, visit http://www.drexel.edu/src/calendar.asp.

Nutrition and Foods

Bachelor of Science: 186.5 credits

Required courses (incoming students, 2009/2010)

Required Courses

Communications		15.0 Credits
COM 230	Techniques of Speaking	3.0
COM 345	Intercultural Communication	3.0
or		
COM 310	Technical Communication	
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0

Physical and Biological Sciences		42.5 Credits
BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5
BIO 123	Organismal Diversity and Ecology	4.5
BIO 153	Anatomy and Physiology I	4.0
BIO 154	Anatomy and Physiology II	4.0
BIO 155	Anatomy and Physiology III	4.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 103	General Chemistry III	5.0
NFS 215	Nutritional Chemistry	3.0
NFS 217	Nutrient Quality & Composition	1.0

Humanities and Social Sciences		12.0 Credits
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
or		
SOC 101	Introduction to Sociology	
PSY 101	General Psychology I	3.0
PSY 320 WI	Educational Psychology (WI)	3.0
or		
PSY 230	Psychology of Learning	
PSY 342	Counseling Psychology	3.0

Management ar	nd Statistics	14.0 Credits
HRM 120	Principles of Food-Service Management	3.0
HRMT 323	Principles of Human Resource Administration	4.0
ORGB 300 WI	Organizational Behavior	4.0

Foods, Food Safety, and Food Production		18.0 Credits
CULA 115	Culinary Fundamentals	3.0
FDSC 154	Foods: Composition, Interactions and Formulations	4.0
FDSC 270	Microbial Food Safety and Sanitation	4.0
FDSC 350	Experimental Food: Product Development	3.0
HRM 215	Commercial Food Production	4.0

Nutrition and Food Sciences		56.0 Credits
NFS 203	Nutrition II: Nutrition in the Life Cycle	4.0
NFS 230	Intermediate Nutrition	4.0
NFS 265	Professional Issues in Nutrition and Foods	3.0
NFS 345	Foods and Nutrition of World Cultures	3.0
NFS 365 WI	Nutrition Laboratory: Food and Nutrient Analysis	4.0
NFS 370	Food Services Systems Management	4.0
NFS 391	Community Nutrition	4.0
NFS 415	Advanced Nutrition I: Macronutrients	4.0
NFS 416	Advanced Nutrition II: Micronutrients	4.0
NFS 431	Nutrition Counseling	4.0
NFS 443	Medical Nutrition Therapy I	3.0
NFS 444	Medical Nutrition Therapy II	3.0
NFS 445	Medical Nutrition Therapy III	3.0
NFS 475	Advanced Seminar in the Dietetics Profession	3.0
NFS 494 WI	Senior Project I	2.0
NFS 495	Senior Project II	2.0
NFS 496	Senior Project III	2.0

Mathematics		8.0 Credits
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0

Additional requirements		3.0 Credits
UNIV 101	The Drexel Experience	3.0

Electives	18.0 Credits
Free electives	18.0

Writing-Intensive Course Requirements

In order to graduate, all students must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering.

Recommended Plan Of Study

BS Nutrition and Foods, 4-year Co-Op 4 YR UG Co-op Concentration

Term 1		Credits
BIO 121	Physiology and Nutrition	4.5
<u>CHEM 101</u>	General Chemistry I	3.5
ENGL 101	Expository Writing and Reading	3.0
MATH 101	Introduction to Analysis I	4.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Term Credits	16.0
Term 2		Credits
BIO 122	Cells and Genetics	4.5
CHEM 102	General Chemistry II	4.5
ENGL 102 MATH 102	Persuasive Writing and Reading	3.0
UNIV 101	Introduction to Analysis II	4.0
UNIV 101	The Drexel Experience	2.0
	Term Credits	18.0
Term 3		Credits
BIO 123	Organismal Diversity & Ecology	4.5
<u>CHEM 103</u>	General Chemistry III	5.0
ENGL 103	Analytical Writing and Reading	3.0
FDSC 154	Foods: Composition, Interaction and Formulation	4.0
	Term Credits	16.5
Term 4		Credits
BIO 153	Anatomy and Physiology I	4.0
HRM 120	Principles of Food-Service Management	3.0
NFS 215	Nutritional Chemistry	3.0
NFS 217	Nutrient Quality & Composition	1.0
NFS 230	Intermediate Nutrition	4.0
	Term Credits	15.0
Term 5		Credits
BIO 154	Anatomy and Physiology II	4.0
<u>CULA 115</u>	Culinary Fundamentals	3.0
FDSC 270	Microbial Food Safety and Sanitation	4.0
NFS 203	Nutrition II: Nutrition in the Lifecycle	4.0
	Term Credits	15.0
Term 6		Credits
BIO 155	Anatomy & Physiology III	4.0
HRM 215	Commercial Food Production	4.0
NFS 265	Professional Issues in Nutrition and Foods	3.0
<u>PSY 101</u>	General Psychology I	3.0
•	Free elective	3.0
	Term Credits	17.0
Term 7		Credits
COM 230	Techniques of Speaking	3.0
ORGB 300	Organizational Behavior	4.0
<u>SOC 101</u> or	Introduction to Sociology	3.0
ANTH 101	Introduction to Cultural Diversity	3.0
•	Free elective	3.0
•		

	Term Credits	13.0
Term 8 FDSC 350 NFS 415 PSY 320 PSY 364 COM 345 Or COM 310	Experimental Foods: Product Development Advanced Nutrition I: Macronutrition Educational Psychology Computer-Assisted Data Analysis I Intercultural Communication Technical Communication Term Credits	3.0 4.0 3.0 3.0 3.0 3.0
Term 9 HRMT 323 NFS 365 NFS 416 PSY 342	Principles of Human Resource Administration Nutrition Laboratory: Food and Nutrient Analysis Advanced Nutrition II: Micronutrients Counseling Psychology Term Credits	Credits 4.0 4.0 4.0 3.0 15.0
Term 10 NFS 391 NFS 443 NFS 475 NFS 494	Community Nutrition Medical Nutrition Therapy I Advanced Seminar in the Dietetics Profession Senior Project I Free elective Term Credits	Credits 4.0 3.0 3.0 2.0 3.0 15.0
Term 11 NFS 431 NFS 444 NFS 495	Nutrition Counseling Medical Nutrition Therapy II Senior Project II Free electives Term Credits	Credits 4.0 3.0 2.0 6.0 15.0
Term 12 NFS 345 NFS 370 NFS 445 NFS 496	Foods and Nutrition of World Cultures Foodservice Systems Management Medical Nutrition Therapy III Senior Project III Free elective Term Credits Total Credits (minimum)	Credits 3.0 4.0 3.0 2.0 3.0 15.0

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Recommended Plan Of Study

BS Nutrition and Foods, 4-year Non-Co-op 4 YR UG No Co-op Concentration

Term 1 BIO 121 CHEM 101 ENGL 101 MATH 101 UNIV 101	Physiology and Nutrition General Chemistry I Expository Writing and Reading Introduction to Analysis I The Drexel Experience Term Credits	Credits 4.5 3.5 3.0 4.0 1.0 16.0
Term 2 BIO 122 CHEM 102 ENGL 102 MATH 102 UNIV 101	Cells and Genetics General Chemistry II Persuasive Writing and Reading Introduction to Analysis II The Drexel Experience Term Credits	Credits 4.5 4.5 3.0 4.0 2.0 18.0
Term 3 BIO 123 CHEM 103 ENGL 103 FDSC 154	Organismal Diversity & Ecology General Chemistry III Analytical Writing and Reading Foods: Composition, Interaction and Formulation Term Credits	Credits 4.5 5.0 3.0 4.0 16.5
Term 4 BIO 153 HRM 120 NFS 215 NFS 217 NFS 230	Anatomy and Physiology I Principles of Food-Service Management Nutritional Chemistry Nutrient Quality & Composition Intermediate Nutrition Term Credits	4.0 3.0 3.0 1.0 4.0
Term 5 BIO 154 CULA 115 FDSC 270 NFS 203	Anatomy and Physiology II Culinary Fundamentals Microbial Food Safety and Sanitation Nutrition II: Nutrition in the Lifecycle Term Credits	4.0 3.0 4.0 4.0 15.0
Term 6 BIO 155 HRM 215 NFS 265 PSY 101	Anatomy & Physiology III Commercial Food Production Professional Issues in Nutrition and Foods General Psychology I Free elective Term Credits	4.0 4.0 3.0 3.0 3.0 17.0
Term 7 FDSC 350 NFS 415 PSY 320 PSY 364	Experimental Foods: Product Development Advanced Nutrition I: Macronutrition Educational Psychology Computer-Assisted Data Analysis I Term Credits	Credits 3.0 4.0 3.0 3.0 13.0

Term 8 COM 230 NFS 365 NFS 416 ORGB 300	Techniques of Speaking Nutrition Laboratory: Food and Nutrient Analysis Advanced Nutrition II: Micronutrients Organizational Behavior Term Credits	Credits 3.0 4.0 4.0 4.0 15.0
Term 9 HRMT 323 PSY 342 ANTH 101 or SOC 101 COM 310	Principles of Human Resource Administration Counseling Psychology Introduction to Cultural Diversity Introduction to Sociology Technical Communication	Credits 4.0 3.0 3.0 3.0 3.0
or COM 345	Intercultural Communication Free elective Term Credits	3.0 3.0 16.0 Credits
NFS 391 NFS 443 NFS 475 NFS 494	Community Nutrition Medical Nutrition Therapy I Advanced Seminar in the Dietetics Profession Senior Project I Free elective Term Credits	4.0 3.0 3.0 2.0 3.0
Term 11 NFS 431 NFS 444 NFS 495	Nutrition Counseling Medical Nutrition Therapy II Senior Project II Free electives Term Credits	Credits 4.0 3.0 2.0 6.0 15.0
Term 12 NFS 345 NFS 370 NFS 445 NFS 496	Foods and Nutrition of World Cultures Foodservice Systems Management Medical Nutrition Therapy III Senior Project III Free elective Term Credits Total Credits (minimum)	Credits 3.0 4.0 3.0 2.0 3.0 15.0

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Minor in Nutrition

The minor in nutrition is designed for students interested in enhancing their major with an application in human nutrition. The nutrition minor should be especially attractive to students in the premedical, biological, and behavioral neurological sciences, as it provides a background for enhanced employment and post-baccalaureate study opportunities in areas closely allied to their basic disciplines.

The minor consists of 25 credits. Interested students should consult with a nutrition and food science faculty member to schedule courses appropriate for their background and goals.

Required courses

NFS 200 WI	Nutrition I: Principles of Nutrition	4.0
or		
NFS 230	Intermediate Nutrition	4.0
NFS 203	Nutrition II: Nutrition in the Life Cycle	4.0
NFS 415	Advanced Nutrition I: Macronutrients and Energy	4.0
NFS 416	Advanced Nutrition II: Micronutrients and Control	4.0

Three of the following courses

	 	
FDSC 154	Foods: Composition, Interaction and Formulations	4.0
NFS 345	Foods and Nutrition of World Cultures	3.0
NFS 391	Community Nutrition	4.0
NFS 480	Special Topics in Nutrition	3.0-4.0

Philosophy

Philosophy is the oldest of all disciplines, dating back to a time before universities. Whether dealing with the nature of knowledge and reality, questions pertaining to moral right and wrong, or with methods of reasoning and analysis, the questions and concerns of philosophy inform all other disciplines and professions, as well as everyday life. Given its longevity, breadth, and rigor, it should not be surprising that the study of philosophy is widely considered as among the most challenging academic programs.

About the Major

The Philosophy major at Drexel provides a strong connection with all fields of knowledge and professions. Many of the courses study assumptions made in the arts, sciences, and technologies, while others investigate ethical issues in the professions. In this sense, the philosophy major uses the other disciplines and professions as subject-matter, and encourages students to supplement and broaden their philosophical studies by choosing from among the more than 80 minor programs of study at the University. For the more ambitious student, a carefully planned use of the Philosophy major's 48 credit hours of free electives will allow the pursuit of a double major, in philosophy and biology, or philosophy and economics, for example.

Instruction in philosophy begins with lecture courses that introduce the several branches of philosophy (metaphysics, epistemology, ethics, etc.). Class size is limited to 25 students. Beginning in the third year, students take seminar classes (limited to 12 students) in which advanced study of philosophical subject areas is pursued. These seminars are discussion oriented, reading- and writing-intensive, and grant students much greater responsibility for learning from peers. In the senior year, students conclude their studies by pursuing a year-long research and writing project, culminating in the defense of an argumentative essay before the philosophy faculty and fellow philosophy majors. This year-long project consists of three one-on-one tutorials.

The Philosophy major will serve the serious student who seeks employment in industry and business (employers have noted a strong interest in graduates trained in careful conceptual and logical analysis), as well as the student who intends to apply to graduate or professional schools. Besides familiarity with professional issues, philosophy majors score consistently higher on Graduate Record Examinations (GREs) and other professional school placement exams (LSATs, GMATs) than students trained in most other fields.

For more information about the Philosophy major, visit the Department of English and Philosophy page.

Philosophy

Bachelor of Arts Degree: 182.0 - 187.0 credits Required courses (incoming students, 2009/2010)

College of Arts and Sciences Requirements		71.0 - 76.0 Credits	
ENGL 101	Expository Writing and Reading	3.0	
ENGL 102	Persuasive Writing and Reading	3.0	
ENGL 103	Analytical Writing and Reading	3.0	
CHEM 201	Why Things Work: Everyday Chemistry	4.0	
MATH 101	Introduction to Analysis I*	4.0	
MATH 102	Introduction to Analysis II**	4.0	
PHIL 101	Introduction to Western Philosophy	3.0	
or			
PHIL 102	Introduction to Eastern Philosophy	3.0	
PHIL 105	Critical Reasoning	3.0	
PHYS 135	How Things Work	3.0	
UNIV 101	The Drexel Experience	3.0	
	Two studies in diversity electives	6.0	
	Two international studies electives	6.0 - 8.0	
	Four social and behavioral sciences electives	12.0-16.0	

^{*}Credit will be granted to students who achieve Advanced Placement (AP) in relevant mathematical disciplines. On the other hand, Students unprepared for MATH 101 should take MATH 100 Fundamentals of Mathematics.

Students select two of the following:

ARTH 101	History of Art I: Ancient to Medieval	3.0
ARTH 102	History of Art II: Renaissance to 18th Century	3.0
ARTH 103	History of Art III: Early to Late Modern Art	3.0

Language Requirement

- 9 - 9 - 1 - 1 - 1	
201 language course***	4.0
202 language course	4.0

^{***}Presupposes a level of success in the placement examination warranting enrollment at this language level. Students are encouraged to pursue language instruction in "the languages of Western Philosophy;" thus, French, German, Italian and Spanish would be recommended. ("Classical" Greek and Latin are not taught at Drexel University.) However, pursuit of proficiency in languages other than those recommended would not be discouraged. Credit will be granted to students who achieve Advanced Placement (AP) in a language.

Major Requirements

63.0 Credits

COM 230	Techniques of Speaking	3.0
PHIL 111	Propositional (Zero-Order) Logic	3.0
PHIL 201	History of Philosophy I	3.0
PHIL 202	History of Philosophy II	3.0

^{**}Students who took MATH 100 in Term 1 must take MATH 101 in Term 2, and MATH 102 in Term 3 or Term 4.

PHIL 203	History of Philosophy III	3.0
PHIL 207	Predicate (First-Order) Logic	3.0
PHIL 211	Metaphysics	3.0
PHIL 221	Epistemology	3.0
PHIL 231	Aesthetics	3.0
PHIL 251	Ethics	3.0
PHIL 361	Philosophy of Science	3.0
PHIL 431 WI	Seminar in Rationalism and Empiricism	3.0
PHIL 481 WI	Seminar in a Philosophical School‡	3.0
PHIL 485 WI	Seminar in a Major Philosopher‡	3.0
PHIL 497 WI	Senior Project I: Research and Thesis Formulation	3.0
PHIL 498 WI	Senior Project II: Argument Construction	3.0
PHIL 499 WI	Senior Project III: Criticism, Defense & Replies	3.0
‡This course ma	ay be repeated for credit.	

One of the following courses:

PHIL 371	Philosophy of the Social Sciences	3.0
PHIL 391	Philosophy of Religion	3.0

One of the following courses:

PHIL 425 WI	Seminar in Medieval Philosophy	3.0
PHIL 421 Wi	Seminar in Ancient Philosophy	3.0

One of the following courses:

PHIL 461 WI	Seminar in Contemporary Philosophy	3.0
PHIL 465 WI	Seminar in American Philosophy	3.0

One of the following Professional Ethics electives:

PHIL 301	Business Ethics	3.0
PHIL 305	Communication Ethics	3.0
PHIL 311	Computer Ethics	3.0
PHIL 315	Engineering Ethics	3.0
PHIL 321	Biomedical Ethics	3.0
PHIL 323	Organizational Ethics	3.0
PHIL 325	Ethics in Sport Management	3.0

Electives	48.0 Credits
Free electives	48.0

Writing-Intensive Course Requirements

In order to graduate, all students must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writingintensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writingintensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term.

Recommended Plan Of Study

BA Philosophy 5 YR UG Co-op Concentration

Term 1 ENGL 101 MATH 101 UNIV 101 PHIL 102 Or PHIL 101	Expository Writing and Reading Introduction to Analysis I The Drexel Experience Introduction to Eastern Philosophy Introduction to Western Philosophy Language 201 (See degree requirements for note about language options) Term Credits	Credits 3.0 4.0 1.0 3.0 3.0 4.0 15.0
Term 2 ENGL 102 MATH 102 PHIL 105 UNIV 101	Persuasive Writing and Reading Introduction to Analysis II Critical Reasoning The Drexel Experience Language 202 Term Credits	Credits 3.0 4.0 3.0 2.0 4.0 16.0
Term 3 CHEM 201 ENGL 103 PHIL 111 PHIL 251	Why Things Work: Everyday Chemistry Analytical Writing and Reading Propositional (zero-order) Logic Ethics Social science elective Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0-16.0
Term 4 PHIL 201 PHIL 207 ARTH 102 Or ARTH 101	History of Western Philosophy I Predicate (first-order) Logic History of Art II: High Renaissance to Modern History of Art I: Ancient to Medieval Diversity studies elective Social science elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0
Term 5 PHIL 202 PHIL 211 PHYS 135 ARTH 103 Or ARTH 102	History of Western Philosophy II Metaphysics How Things Work History of Art- Early to Late Modern History of Art II: High Renaissance to Modern Diversity studies elective Term Credits	15.0-16.0 Credits 3.0 3.0 4.0 3.0 3.0 3.0 16.0
Term 6 COM 230 PHIL 203 PHIL 221	Techniques of Speaking History of Western Philosophy III Epistemology Free elective Social science elective Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0-16.0

Term 7	Aesthetics	Credits 3.0
•	Free electives	6.0
•	Professional ethics elective (See Degree requirements for list of options.)	3.0
•	Social science elective	3.0-4.0
·	Term Credits	15.0-16.0
Term 8		Credits
PHIL 361	Philosophy of Science	3.0
PHIL 481	Seminar in a Philosophical School or Movement	3.0
•	Free electives International studies elective	6.0 3.0-4.0
٠	Term Credits	15.0-16.0
	Term Oreans	13.0-10.0
Term 9		Credits
PHIL 485	Seminar in a Major Philosopher	3.0
PHIL 391	Philosophy of Religion	3.0
or <u>PHIL 371</u>	Philosophy of Social Sciences	3.0
•	Free electives	6.0
•	International studies elective	3.0-4.0
·	Term Credits	15.0-16.0
Term 10		Credits
PHIL 497	Senior Essay I: Research & Thesis	3.0
PHIL 425	Seminar in Medieval Philosophy	3.0
or		
PHIL 421	Seminar in Ancient Philosophy	3.0
i	Free electives Term Credits	9.0 <i>15.0</i>
	Term Creans	15.0
Term 11		Credits
PHIL 431	Seminar in Rationalism & Empiricism	3.0
PHIL 498	Senior Essay II: Argument Construction	3.0
i	Free electives	9.0
	Term Credits	15.0
Term 12		Credits
PHIL 499	Senior Essay III: Defense	3.0
PHIL 465	Seminar in American Philosophy	3.0
or <u>PHIL 461</u>	Seminar in Contemporary Philosophy	3.0
•	Free electives	9.0
•	Term Credits	15.0
	Total Credits (minimum)	182.0-188.0

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Minor in Philosophy

24.0 credits

The Minor in Philosophy combines the rigor of traditional philosophical inquiry with an interest in practical problems. The emphasis, both in the structure of the course requirements and in content, is on a critical concern with contemporary issues in determining solutions. This focus serves Drexel University's mission of providing practical professional instruction. It also serves students who seek employment in industry and business (employers have noted an interest in graduates trained in careful philosophical and logical analysis), as well as those applying to graduate school in the professions. Besides familiarity with professional issues, philosophically trained students perform better on graduate school entrance examinations than most other undergraduates.

Students who have completed 30 credit hours at Drexel University may apply for the Minor in Philosophy by completing the "Declaration of Minor" form available online from the Student Resources Center web page.

The Minor in Philosophy requires completion of 8 courses (24 credit hours) in philosophy, as follows:

Required Courses

PHIL 101	Introduction to Western Philosophy	3.0
PHIL 211	Metaphysics	3.0
PHIL 221	Epistemology	3.0
PHIL 251	Ethics	3.0

One of the following courses:

PHIL 105	Critical Reasoning	3.0
PHIL 111	Propositional (Zero-Order) Logic	3.0

One of the following courses:

PHIL 301	Business Ethics	3.0
PHIL 305	Communication Ethics	3.0
PHIL 311	Computer Ethics	3.0
PHIL 315	Engineering Ethics	3.0
PHIL 321	Biomedical Ethics	3.0

One of the following courses:

PHIL 231	Aesthetics	3.0
PHIL 241	Social and Political Philosophy	3.0
PHIL 351	Philosophy of Technology	3.0
PHIL 355	Philosophy of Medicine	3.0
PHIL 361	Philosophy of Science	3.0
PHIL 371	Philosophy of the Social Sciences	3.0
PHIL 381 WI	Philosophy in Literature	3.0
PHIL 385	Philosophy of Law	3.0
PHIL 391	Philosophy of Religion	3.0

One of the following courses

PHIL 421 WI	Seminar in Ancient Philosophy	3.0
PHIL 425 WI	Seminar in Medieval Philosophy	3.0
PHIL 431 WI	Seminar in Rationalism and Empiricism	3.0
PHIL 461 WI	Seminar in Contemporary Philosophy	3.0



Philosophy in the Arts & Humanities Certificate 18.0 credits

This certificate program, open to all students, entails completion of college-level study of philosophical themes, problems and questions in the arts and humanities. The Philosophy in the Arts & Humanities (PHAH) Certificate provides an alternative to undergraduates who are majoring in programs that do not include sufficient free electives to allow for a minor in philosophy, or to other undergraduates wishing to give themselves an interesting advantage in seeking employment.

Required Courses		18.0 Credits
PHIL 101	Introduction to Western Philosophy	3.0
PHIL 105	Critical Reasoning	3.0
PHIL 107	Philosophy and Knowledge Organization	3.0
PHIL 231	Aesthetics	3.0
PHIL 381 WI	Philosophy in Literature	3.0

One of the following courses: PHIL 385 Philosophy of Law 3.0 PHIL 391 Philosophy of Religion 3.0

Philosophy in Science and Technology Certificate 18.0 credits

This certificate program, open to all students, entails completion of college-level study of philosophical themes, problems and questions in the sciences and technologies. The Philosophy in Science and Technology (PHST) Certificate provides an alternative to undergraduates who are majoring in programs that do not include sufficient free electives to allow for a minor in philosophy, or to other undergraduates wishing to give themselves an interesting advantage in seeking employment.

Required Courses		18.0 Credits	
PHIL 101	Introduction to Western Philosophy	3.0	
PHIL 105	Critical Reasoning	3.0	
PHIL 107	Philosophy and Knowledge Organization	3.0	
PHIL 351	Philosophy of Technology	3.0	
PHIL 355	Philosophy of Medicine	3.0	
One of the fo	ollowing courses:		
PHIL 361	Philosophy of Science	3.0	
PHIL 371	Philosophy of the Social Sciences	3.0	

Physics

The physics degree provides a sound basis either for entering graduate school or for pursuing a variety of industrial careers. The Department of Physics exposes students to both traditional and cutting-edge areas of 20th-century physics: astrophysics and general relativity; atomic physics; biological physics; condensed-matter physics, including superconductivity and nanotechnology; laser physics and quantum optics; nonlinear physics and chaos; nuclear physics; nuclear astrophysics; and particle and cosmic ray physics.

Virtually every course in the physics major has an associated computational component designed to extend the students' ability to handle real-world problems solved by state-of-the-art techniques. An important feature of the program is the large number of electives, which allow a student to pursue topics of special interest. There are elective sequences in biology for those preparing to enter biophysics or medicine and advanced topics for those interested in atomic, nuclear, solid-state, theoretical, or atmospheric physics. Students can also choose electives to meet teacher certification requirements.

The Laboratory for High-Performance Computational Physics is now in place, and courses allow students to become proficient in numerical techniques, parallel processing, electronic communication, and the basic computer languages and software relevant to advanced studies and research in physics and atmospheric science.

The Department of Physics exposes students to both traditional and cutting-edge areas of 20th-century physics: astrophysics and general relativity; atomic physics; biological physics; condensed-matter physics, including superconductivity and nanotechnology; laser physics and quantum optics; nonlinear physics and chaos; nuclear physics; nuclear astrophysics; and particle and cosmic ray physics.

Physics

Bachelor of Science Degree: 185.0 credits Required courses (incoming students, 2009/2010)

General education requirements

ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Technical elective	3.0
	Liberal studies electives*	9.0
	Business electives	8.0
	Free electives	12.0

*It is strongly recommended that a student's liberal studies and/or free electives include COM 230 (Techniques of Speaking) and COM 310 WI (Technical Communication).

Mathematics/computer science requirements

	•	
CS 171	Computer Programming I	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 210	Differential Equations	4.0

Chemistry requirements

CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
BIO 102	Biology I: Cells and Tissues	4.0
or		
CHEM 103	General Chemistry III	5.0

Physics requirements

PHYS 113	Contemporary Physics I	5.0
PHYS 114	Contemporary Physics II	5.0
PHYS 115	Contemporary Physics III	5.0
PHYS 105	Computational Physics I	3.0
PHYS 160	Introduction to Scientific Computing	3.0
PHYS 217	Thermodynamics	4.0
PHYS 223 WI	Modern Physics Laboratory	3.0
PHYS 226 WI	Instrumentation for Scientists I	3.0
PHYS 305	Computational Physics II	3.0
PHYS 311	Classical Mechanics I	4.0
PHYS 312	Classical Mechanics II	4.0

PHYS 317	Statistical Mechanics	3.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 322	Electromagnetic Fields II	4.0
PHYS 324	Topics in Mathematical Physics	3.0
PHYS 326	Quantum Mechanics I	4.0
PHYS 327	Quantum Mechanics II	4.0
PHYS 328	Advanced Laboratory	3.0
PHYS 408	Physics Seminar	3.0
PHYS 428	Quantum Mechanics III	4.0
PHYS 491	Senior Research I	3.0
PHYS 492	Senior Research II	3.0
PHYS 493 WI	Senior Research III	3.0

Physics lab requirements		3.0 - 4.0
PHYS 227 WI	Instrumentation for Scientists II	3.0
or		
PHYS 306 and	Computational Physics Laboratory I	2.0
PHYS 307	Computational Physics Laboratory II	2.0

Topical course requirements

12.0

Physics majors must complete four (4)Topical courses designated by the Physics department. Advanced Computational Physics (Phys 405) will also satisfy a topical requirement. In Any course which is not explicitly in the department's roster of topical courses must be approved by the department head or director of undergraduate advising.

Topical courses

PHYS 431	Galactic Dynamics	3.0
PHYS 432	Cosmology	3.0
PHYS 452	Solid State Physics	3.0
PHYS 453	Nanoscience	3.0
PHYS 461	Biophysics	3.0
PHYS 462	Computational Biophysics	3.0
PHYS 471	Nonlinear Dynamics	3.0
PHYS 476	Nuclear and Particle Physics	3.0

In addition to these Topical course options, the Department of Physics will count any non-required course at the 400-level or higher (for example, PHYS 405 Advanced Computational Physics), Special Relativity (taught at the 200-level in the Honors College), or directly appropriate advanced courses in related fields. The appropriateness of the latter is determined by obtaining a signed letter to that effect from the Physics Department's Director of Undergraduate Studies.

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering.

Recommended Plan Of Study

BS Physics 5 YR UG Co-op Concentration

Term 1 ENGL 101 MATH 121 PHYS 113 PHYS 160 UNIV 101	Expository Writing and Reading Calculus I Contemporary Physics I Introduction to Scientific Computing The Drexel Experience Term Credits	Credits 3.0 4.0 5.0 3.0 1.0
Term 2 CS 171 ENGL 102 MATH 122 PHYS 114 UNIV 101	Computer Programming I Persuasive Writing and Reading Calculus II Contemporary Physics II The Drexel Experience Term Credits	Credits 3.0 3.0 4.0 5.0 1.0
Term 3 ENGL 103 MATH 123 PHYS 105 PHYS 115	Analytical Writing and Reading Calculus III Computational Physics I Contemporary Physics III Term Credits	Credits 3.0 4.0 3.0 5.0
Term 4 CHEM 101 MATH 200 MATH 201 PHYS 217	General Chemistry I Multivariate Calculus Linear Algebra Thermodynamics Term Credits	Credits 3.5 4.0 4.0 4.0 15.5
Term 5 CHEM 102 MATH 210 PHYS 223 PHYS 305 PHYS 324	General Chemistry II Differential Equations Modern Physics Laboratory Computational Physics II Topics in Mathematical Physics Term Credits	4.5 4.0 3.0 3.0 3.0 17.5
Term 6 PHYS 311 PHYS 321 CHEM 103 Or BIO 102	Classical Mechanics I Electromagnetic Fields I General Chemistry III Biology I: Cells and Tissues Liberal studies elective Term Credits	Credits 4.0 4.0 5.0 4.0 3.0 16.0
Term 7 PHYS 312 PHYS 322 PHYS 328 PHYS 306 Or PHYS 227	Classical Mechanics II Electromagnetic Fields II Advanced Laboratory Computational Physics Laboratory I	Credits 4.0 4.0 3.0 2.0

·	Instrumentation for Scientists II Business elective	3.0 4.0
•	Term Credits	17.0
Term 8		Credits
PHYS 226	Instrumentation for Scientists I	3.0
PHYS 326	Quantum Mechanics I	4.0
•	Free elective	3.0
•	Liberal studies elective	3.0
	Topical Physics course (See degree requirements)	3.0
	Term Credits	16.0
Term 9		Credits
PHYS 317	Statistical Mechanics	3.0
PHYS 327	Quantum Mechanics II	4.0
PHYS 307	Computational Physics Laboratory II	2.0
	Free elective	3.0
•	Liberal studies elective	3.0
•	Topical Physics course (See degree requirements)	3.0
	Term Credits	18.0
Term 10		Credits
PHYS 408	Physics Seminar	1.0
PHYS 428	Quantum Mechanics III	3.0
PHYS 491	Senior Research I	3.0
•	Technical elective	3.0
	Topical Physics course (See degree requirements)	3.0
	Term Credits	13.0
Term 11		Credits
PHYS 408	Physics Seminar	1.0
PHYS 492	Senior Research II	3.0
	Free elective	3.0
•	Technical elective	3.0
	Topical Physics course (See degree requirements)	3.0
	Term Credits	13.0
Term 12		Credits
PHYS 408	Physics Seminar	1.0
PHYS 493	Senior Research III	3.0
•	Business elective	4.0
	Free elective	4.0
	Term Credits	12.0
	Total Credits (minimum)	185.0

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Minor in Astrophysics

Astrophysics brings together many disparate areas of physics—gravitational physics govern the evolution of galaxies and clusters, nuclear physics dominates the cores of stars, electromagnetism governs the radiation that we use to observe these objects. Students majoring in mathematics and computer Science, as well as other disciplines, are often fascinated by the questions raised by astrophysics. The minor in astrophysics requires a total of 26.0 credits in addition to the required prerequisite courses.

Required	Prerec	uisite	Courses*
Neuuneu	1 1 5 1 5 6	IUISILE	Courses

PHYS 113	Contemporary Physics I	5.0
PHYS 114	Contemporary Physics II	5.0
PHYS 115	Contemporary Physics III	5.0
Required Cou	urses	
PHYS 311	Classical Mechanics I	4.0
PHYS 312	Classical Mechanics II	4.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 231	Introductory Astrophysics	3.0
PHYS 232	Observational Astrophysics	3.0
PHYS 431	Galactic Dynamics	3.0
PHYS 432	Cosmology	3.0
PHYS 409	Astrophysics Seminar**	2.0

^{*}Physics 111/112/211 or tDEC 111/113/115/201 will also satisfy the prerequisite requirements.

Note: Because of the overlap in requirements between the astrophysics and the physics minors, a student would be prohibited from minoring in both.

^{**}Two terms, one credit each term.



Minor in Physics

A minor in physics requires a total of 37.5 credits from among the following courses:

Courses		
PHYS 113	Contemporary Physics I	5.0
PHYS 114	Contemporary Physics II	5.0
PHYS 115	Contemporary Physics III	5.0
PHYS 311	Classical Mechanics I	4.0
PHYS 312	Classical Mechanics II	4.0
PHYS 321	Electromagnetic Fields I	4.0
PHYS 326	Quantum Mechanics I	4.0
Electives*		
PHYS 305	Computational Physics II	3.0
PHYS 471	Nonlinear Dynamics	3.0
PHYS 322	Electromagnetic Fields II	4.0
PHYS 327	Quantum Mechanics II	4.0
PHYS 480	Special Topics: Principles of Laser Physics	3.0
PHYS 451	Quantum Structure of Materials	4.0
PHYS 476	Nuclear and Particle Physics	4.0

^{*}The remaining 10.5 credits must be taken at or above the 300-level. See the department for a full list of possible courses.



Psychology

About the Major

Psychology seeks the answers to a broad variety of questions regarding the behavior, thoughts, and emotions of individuals. These questions range from the biochemical basis of memory and the effects of stress on health to understanding the causes of emotional problems or such experiences as falling in love. These questions are studied by using scientific research techniques both in the laboratory and the "real" world. The answers are applied in fields such as business, the health sciences, law, education, counseling, and the design of useful and usable technologies.

One strength of the psychology program at Drexel is its emphasis on psychological statistics and research methodology. Psychology majors are well trained in research data analysis and find employment opportunities in research and corporate settings more readily. One other opportunity available to Drexel psychology undergraduates is the co-operative education/internship programs, through which students mix periods of full-time, career-related employment with their academic studies. This allows students to have "hands on" experience in a variety of clinical settings throughout the Philadelphia metropolitan region, and makes them more competitive for employment after graduation.

For additional information, visit the Drexel University Department of Psychology homepage.

Psychology

Bachelor of Science Degree: 182.0 credits
Required courses (incoming students, 2009/2010)

College/University requirements

College/Univer	sity requirements	
CS 161	Introduction to Computing	3.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0
or		
MATH 121	Calculus I Calculus II	4.0
MATH 122		4.0
PSCI 100	Introduction to Political Science	4.0
UNIV 101	The Drexel Experience	2.0
	Economics elective	4.0
	Fine arts elective	3.0
	History electives	6.0
	Philosophy elective	3.0
One of the follo	-	3.0
ENGL 200 WI	Classical to Medieval Literature	
ENGL 201	Renaissance to the Enlightenment	
ENGL 202 WI	Romanticism to Modernism	
One of the follo	0	3.0
ENG 203	Post-Colonial Literature I	
ENG 204	Post-Colonial Literature II	
One of the follo	owing course sequences	8.0
BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	4.0
or		
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
or	•	<u> </u>
PHYS 103	General Physics I	4.0
PHYS 104	General Physics II	4.0
	Total credits	56.0
Other courses		
Total free elect	ive credits	54.0
Departmental r	•	
General Psych	ology requirements	

PSY 111	Preprofessional Psychology I*	3.0
PSY 112	Preprofessional Psychology II*	3.0

^{*} Students with AP psychology or transfer students with PSY 101 credit do not take the PSY 111and PSY 112 series, but use their approved credit and a 100-level Psychology elective to satisfy the general Psychology requiremen, plus an additional 100-level elective.

Sociology/Anthropology requirements

	Any Sociology course	3.0
	Any Anthropology course	3.0
Other course	es quirements (Two of the following courses)	
PSY 120	Developmental Psychology	3.0
PSY 140	Approaches to Personality	3.0
PSY 150	Introduction to Social Psychology	3.0

Required Psychology courses

PSY 212	Physiological Psychology	3.0
PSY 230	Psychology of Learning	3.0
PSY 240 WI	Abnormal Psychology	3.0
PSY 260	Research Methods in Psychology	3.0
PSY 330	Cognitive Psychology	3.0
PSY 340	Psychological Testing and Assessment	3.0
PSY 360	Experimental Psychology	3.0
PSY 364	Computer-Assisted Data Analysis I	3.0
PSY 365	Computer-Assisted Data Analysis II	3.0
PSY 401	History and Systems	3.0

Advanced Psychology electives (Four of the following courses)		12.0
PSY 210	Evolutionary Psychology	3.0
PSY 213	Sensation and Perception	3.0
PSY 225	Child Psychopathology	3.0
PSY 245 WI	Sports Psychology	3.0
PSY 250 WI	Industrial Psychology	3.0
PSY 252	Death and Dying	3.0
PSY 262	Science and Pseudoscience	3.0
PSY 310	Drugs and Human Behavior	3.0
PSY 322	Advanced Developmental Psychology	3.0
PSY 332	Human Factors and Cognitive Engineering	3.0
PSY 337	The Psychology of Human-Computer Interaction	3.0
PSY 342	Counseling Psychology	3.0
PSY 350	Advanced Social Psychology	3.0
PSY 355	Health Psychology	3.0
PSY 356	Women's Health Psychology	3.0
PSY 410	Neuropsychology	3.0
PSY 440	Advanced Personality Seminar	3.0
PSY 442	Theories and Practice in Clinical Psychology	3.0

Senior seminar sequence*

PSY 490	Psychology Senior Thesis I*	4.0
PSY 491	Psychology Senior Thesis II*	4.0
PSY 492	Psychology Senior Thesis III*	4.0

* Students who do not wish to elect the research seminar sequence are required to take four additional advanced psychology electives instead.

Total departmental credits

72.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BS Psychology 5 YR UG Co-op Concentration

Term 1		Credits
ENGL 101	Expository Writing and Reading	3.0
PSY 111	Preprofessional Psychology I	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
MATH 121	Calculus I	4.0
or		
MATH 101	Introduction to Math Analysis I	4.0
<u>CHEM 101</u>	General Chemistry I	3.5
or		
PHYS 103	General Physics I	4.0
or		
BIO 102	Biology I: Cells and Tissues	4.0
	Term Credits	14.5
-		0
Term 2	Proceedings of the Market of the Control of the Con	Credits
ENGL 102	Persuasive Writing and Reading	3.0
PSY 112	Preprofessional Psychology II	3.0
<u>UNIV 101</u>	The Drexel Experience	1.0
BIO 104	Biology II: Growth and Heredity	4.0
or		
CHEM 102	General Chemistry II	4.5
or PHYS 104	General Physics II	4.0
MATH 102	•	
or	Introduction to Math Analysis II	4.0
MATH 122	Calculus II	4.0
PSY 120	Developmental Psychology	3.0
or	Developmental r sychology	5.0
PSY 140	Approaches to Personality	3.0
or	Approaches to resonanty	0.0
PSY 150	Introduction to Social Psychology	3.0
•	Term Credits	18.0
Term 3		Credits
ENGL 103	Analytical Writing and Reading	3.0
PSY 240	Abnormal Psychology	3.0
PSY 120	Developmental Psychology	3.0
or	Dovolopinonia i oyonology	0.0
PSY 150	Introduction to Social Psychology	3.0
or	3,	
PSY 140	Approaches to Personality	3.0
•	Fine arts elective	3.0
•	Sociology/Anthropology elective (SOC or ANTH)	3.0
•	Term Credits	15.0
Term 4		Credits
PSCI 100	Introduction to Political Science	4.0
ENGL 200	Classical to Medieval Literature	3.0
or		
ENGL 202	Romanticism to Modernism	3.0
or		
ENGL 201	Renaissance to the Enlightenment	3.0
	Advanced Psychology courses (See degree requirements list)	6.0
	Sociology/Anthropology elective (SOC or ANTH)	3.0

	Term Credits	16.0
Term 5 CS 161 PSY 260 PSY 330 ENGL 203	Introduction to Computing Research Methods in Psychology Cognitive Psychology Post-Colonial Literature I	Credits 3.0 3.0 3.0 3.0
Or ENGL 204 PSY 212 Or	Post-Colonial Literature II Physiological Psychology	3.0 3.0
PSY 230	Psychology of Learning Philosophy (PHIL) elective Term Credits	3.0 3.0 18.0
Term 6 PSY 340 PSY 360 PSY 364 PSY 230 Or	Psychological Testing and Assessment Experimental Psychology Computer-Assisted Data Analysis I Psychology of Learning	Credits 3.0 3.0 3.0 3.0
PSY 212	Physiological Psychology Economics (ECON) elective Term Credits	3.0 4.0 16.0
Term 7 PSY 365	Computer-Assisted Data Analysis II Free electives History elective Term Credits	Credits 3.0 9.0 3.0 15.0
Term 8	Advanced Psychology course (See degree requirements for list)	Credits
	Free electives History elective Term Credits	3.0 12.0 3.0 18.0
Term 9	Free electives History elective	12.0 3.0
Term 9 Term 10 PSY 401	Free electives History elective Term Credits Advanced Psychology course (See degree requirements for list) Free electives	12.0 3.0 18.0 Credits 3.0 9.0
Term 10	Free electives History elective Term Credits Advanced Psychology course (See degree requirements for list) Free electives Term Credits History and Systems Free electives PSY 490 Senior Thesis I or an advanced PSY elective	12.0 3.0 18.0 Credits 3.0 9.0 12.0 Credits 3.0 6.0 4.0
Term 10 PSY 401	Free electives History elective Term Credits Advanced Psychology course (See degree requirements for list) Free electives Term Credits History and Systems Free electives PSY 490 Senior Thesis I or an advanced PSY elective Term Credits Free electives PSY 492 Senior Thesis III or an advanced PSY elective	12.0 3.0 18.0 Credits 3.0 9.0 12.0 Credits 3.0 6.0 4.0 13.0 Credits 9.0 4.0

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Minor in Psychology

The minor in Psychology is intended to meet the needs of students who recognize that an understanding and analysis of individual psychological processes is an important component of their education. The minor may also be of interest to students who have an interest in a double major but are unable to satisfy all of the requirements in two major fields.

Entry into the minor requires that General Psychology (or an equivalent introductory course) be taken as a prerequisite. Students who have completed PSY101 and who are interested in a minor in Psychology are expected to meet with a Psychology Department faculty member to discuss the selection of courses appropriate to their major and their own personal interests. No more than three courses that are required for a student's major can count towards fulfilling requirements for the minor.

Required prerequisite

	General Psychology course (PSY 101 or equivalent)	3.0
Required cours	ses (Select eight of the following courses)	24.0
PSY 120	Developmental Psychology	3.0
PSY 140	Approaches to Personality	3.0
PSY 150	Introduction to Social Psychology	3.0
PSY 210	Evolutionary Psychology	3.0
PSY 212	Physiological Psychology	3.0
PSY 213	Sensation and Perception	3.0
PSY 230	Psychology of Learning	3.0
PSY 240 (WI)	Abnormal Psychology	3.0
PSY 260	Research Methods in Psychology	3.0
PSY 330	Cognitive Psychology	3.0
PSY 340	Psychological Testing and Assessment	3.0
PSY 245 WI	Sports Psychology	3.0
PSY 250 WI	Industrial Psychology	3.0
PSY 252	Death and Dying	3.0
PSY 310	Drugs and Human Behavior	3.0
PSY 322	Advanced Developmental Psychology	3.0
PSY 332	Human Factors and Cognitive Engineering	3.0
PSY 337	The Psychology of Human-Computer Interaction	3.0
PSY 340	Psychological Testing and Assessment	3.0
PSY 343	Counseling Psychology	3.0
PSY 350	Advanced Social Psychology	3.0
PSY 360	Experimental Psychology	3.0
PSY 364	Computer-Assisted Data Analysis I	3.0
PSY 365	Computer-Assisted Data Analysis II	3.0
PSY 401	History and Systems	3.0
PSY 410	Neuropsychology	3.0
PSY 442	Theories and Practice in Clinical Psychology	3.0
PSY 480	Directed Studies in Psychology	Variable



Minor in Human Factors and Ergonomics

The Minor in Human Factors and Ergonomics is intended to meet the needs of the students who have an interest in any type of design and who recognize the importance of taking account of human characteristics, both strengths and weaknesses, in the design of artifacts intended for human use (e.g., equipment, computer software, consumer products, and even entire work environments).

The minor should also be of particular interest to students who have an interest in doing graduate work in Human Factors, Ergonomics, Industrial Design, etc.

Entry into the minor requires that General Psychology (or an equivalent introductory course) be taken as a prerequisite. Students who have completed PSY101 and who are interested in a minor in Psychology are expected to meet with a Psychology Department faculty member to discuss the selection of appropriate courses. No more than three courses that are required for a student's major can count towards fulfilling requirements for the minor.

Required prerequisite

	General Psychology course (PSY 101 or equivalent)	3.0
Required courses		24.0
PSY 212	Physiological Psychology	3.0
PSY 213	Sensation and Perception	3.0
PSY 250 WI	Industrial Psychology	3.0
PSY 330	Cognitive Psychology	3.0
PSY 332	Human Factors and Cognitive Engineering	3.0
PSY 337	The Psychology of Human-Computer Interaction	3.0
PSY 360	Experimental Psychology	3.0

One additional course from the following list

BMES 330	Biological Rhythms in Pharmacology and Toxicology	3.0
BMES 350	The Medical and Biological Effects of Light	3.0
BMES 411	Chronoengineering I: Biological Rhythms in Health and Performance	3.0
BMES 412	Chronoengineering II: Sleep Functions in Health and Performance	3.0
PSY 150	Introduction to Social Psychology	3.0
PSY 230	Psychology of Learning	3.0
PSY 310	Drugs and Human Behavior	3.0
PSY 340	Psychological Testing and Assessment	3.0
PSY 350	Advanced Social Psychology	3.0



Political Science

The Department of History & Politics offers programs in both disciplines to provide students with the essential elements of liberal learning. The Political Science program helps students cultivate perspective, develop critical thinking and communication skills, and understand the economic, social, and political systems within which we live and work.

Drexel University offers both a Bachelor of Arts (BA) and a Bachelor of Science (BS) in Political Science, enabling students to choose the program that best fits their future goals. The BS program provides a framework for those students who want to focus specifically on regulatory politics and public policy. The BA program provides a more traditional course of study, which includes language requirements and allows for options in the fulfillment of math and science requirements. Whether they are preparing to enter law school, the business world, or graduate school, students can shape a curriculum that meets their needs. Those interested in careers that combine history and political science may also choose to double major in those subjects.



Political Science Degrees

The Department of History & Politics offers both a Bachelor of Science (BS) and a Bachelor of Arts (BA) in Political Science. Students may choose the program that best fits their needs and future goals.

The Bachelor of Science (BS) provides a framework for those students who prefer specific course requirements, including sequences in mathematics and the natural sciences.

The Bachelor of Arts (BA) provides a more flexible course of study, which includes foreign language and allows for options in the fulfillment of humanities, social science, math, and science requirements.

Bachelor of Science

Political Science (BS) Degree Requirements

Political Science (BS) Sample Plan of Study

Bachelor of Arts

Political Science (BA) Degree Requirements

Political Science (BA) Sample Plan of Study

Political Science

Bachelor of Arts Degree: 182.0 credits

Required courses (incoming students, 2009/2010)

General education requirements		68.0 - 72.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	3.0
	Two math courses	6.0-8.0
	Two science courses*	6.0-8.0

^{*}Any Biology (BIO), Chemisitry (CHEM), Nutrition (NFS), Physics (PHYS) or Environmental Science (ENVS) course.

Foundation requirements

Two diversity electives	6.0
Two consecutive foreign language courses (must complete level 201)	8.0
Four humanities/fine arts electives	12.0
Four social science electives	12.0
Two international studies electives	6.0

Core Political Science Requirements		49.0 Credits	
PSCI 110	American Government I	4.0	
PSCI 120	History of Political Thought	4.0	
PSCI 130	Research Methods in Political Science I	4.0	
PSCI 140	Introduction to Comparative Political Analysis	4.0	
PSCI 150	International Politics	4.0	
PSCI 211	American Government II	4.0	
PSCI 220	Constitutional Law I: Separation of Powers	3.0	
PSCI 230	Research Methods in Political Science I	4.0	
PSCI 240	Comparative Government	3.0	
PSCI 250	American Foreign Policy	3.0	
PSCI 270	Problems of Individual Liberty and Government Authority	3.0	
	History Electives*	9.0	

^{*} Only 200-level and above HIST courses will fulfill this requirement.

Political Science Electives*

30.0 Credits

^{*} Only 300-level and above PSCI courses will fulfill this this requirement.

Free Electives	32.0 - 36.0 Credits
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Recommended Plan Of Study

BA Political Science 5 YR UG Co-op Concentration

Term 1 ENGL 101 MATH 100 PSCI 110 PSCI 150 UNIV 101	Expository Writing and Reading Fundamentals of Mathematics American Government I International Politics The Drexel Experience Term Credits	3.0 3.0 4.0 4.0 2.0 16.0
Term 2 ENGL 102 MATH 101 PSCI 140 UNIV 101	Persuasive Writing and Reading Introduction to Analysis I Introduction to Comparative Political Analysis The Drexel Experience Foreign language course (103-level or higher) Science elective (See degree requirements) Term Credits	Credits 3.0 4.0 4.0 1.0 4.0 3.0-4.0 19.0-20.0
Term 3 ENGL 103 PSCI 120 PSCI 130	Analytical Writing and Reading History of Political Thought Research Methods in Political Science I Foreign language course (201-level or higher) Science elective (See degree requirements) Term Credits	3.0 4.0 4.0 4.0 3.0 18.0
Term 4	Diversity studies elective Free elective History elective (200-level and above HIST course) Humanities/Fine Arts elective Social and Behavioral Sciences electives Term Credits	3.0 3.0 3.0 3.0 3.0 6.0 18.0
Term 5 PSCI 240	Comparative Government History elective (200-level and above HIST course) Humanities/Fine Arts elective Political Science elective (300-level and above PSCI course) Social and Behavioral Sciences elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 15.0
Term 6 PSCI 211	American Government II Diversity studies elective Free elective History elective (200-level and above HIST course) International studies elective Term Credits	4.0 3.0 3.0 3.0 3.0 16.0
Term 7 PSCI 220 PSCI 230	Constitutional and Judicial Process Research Methods in Political Science II Free elective	Credits 3.0 4.0 3.0

•	Humanities/Fine Arts elective International studies elective Term Credits	3.0 3.0 16.0
Term 8 PSCI 250	American Foreign Policy Free elective Humanities/Fine Arts elective Political Science elective (300-level and above PSCI course) Social and Behavioral Sciences elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0
Term 9 PSCI 270	Problems of Individual Liberty and Government Authority Free electives Political Science electives (300-level and above PSCI courses) Term Credits	Credits 3.0 4.0-6.0 6.0 13.0-15.0
Term 10	Free electives Political Science electives (300-level and above PSCI courses) Term Credits	Credits 6.0 6.0 12.0
Term 11	Free electives Political Science electives (300-level and above PSCI courses) Term Credits	6.0 6.0 12.0
Term 12	Free electives Political Science electives (300-level and above PSCI courses) Term Credits	Credits 6.0 6.0 12.0
	Total Credits (minimum)	182.0-185.0

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Political Science

Bachelor of Science Degree: 182.0 credits
Required courses (incoming students, 2009/2010)

General educ	ation requirements	64.0 Credit
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	3.0
	Any 8-credit math sequence*	8.0
	Any 8-credit science sequence**	8.0
* Sample Matl	n sequences:	8.0
Additional ma Department.	th sequence options are available. Students sh	ould check with the
MATH 101	Introduction to Math Analysis I	4.0
MATH 102	Introduction to Math Analysis II	4.0
or		
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
**Sample Scie	ence sequences:	8.0
Additional sci	ence sequence options are available. Check wi	th theDepartment.
BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	4.0
or		
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
or		
CHEM 111	General Chemistry I	4.0
CHEM 112	General Chemistry II	4.0
or		
PHYS 103	General Physics I	4.0
PHYS 104	General Physics II	4.0

Foundation requirements

ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
or		
ANTH 110	The Human Past	3.0
COM 150	Mass Media and Society	3.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 202 WI	Romanticism to Modernism	3.0

Post-Colonial Literature II:

ENGL 204	Africa/Asia/Caribbean/Japan/Middle East	3.0
MUSC 130	Introduction to Music	3.0
PSY 101	General Psychology	3.0
SOC 101	Introduction to Sociology	3.0
PHIL 105	Critical Reasoning	3.0
STAT	Any 4-credit statistics course	4.0

Core Political Science Requirements		49.0 Credits
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 130	Research Methods in Political Science I	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0
PSCI 211	American Government II	4.0
PSCI 220	Constitutional Law I: Separation of Powers	3.0
PSCI 230	Research Methods in Political Science I	4.0
PSCI 240	Comparative Government	3.0
PSCI 250	American Foreign Policy	3.0
PSCI 270	Problems of Individual Liberty and Government Authority	3.0
	History Electives*	9.0

^{*} Only 200-level and above HIST courses will fulfill this requirement.

Political Science Electives**	30.0 Credits

^{**} Only 300-level and above PSCI courses will fulfill this requirement.

Free Electives	40.0 Credits
	10.0 0.00.10

Recommended Plan Of Study

BS Political Science 5 YR UG Co-op Concentration

Term 1 ENGL 101 MATH 101 PSCI 110 PSCI 150 UNIV 101	Expository Writing and Reading Introduction to Analysis I American Government I International Politics The Drexel Experience Term Credits	Credits 3.0 4.0 4.0 4.0 2.0 17.0
Term 2 COM 150 ENGL 102 MATH 102 PSCI 140 SOC 101 UNIV 101	Mass Media and Society Persuasive Writing and Reading Introduction to Analysis II Introduction to Comparative Political Analysis Introduction to Sociology The Drexel Experience Term Credits	Credits 3.0 3.0 4.0 4.0 3.0 1.0
Term 3 ENGL 103 PSCI 120 PSCI 130 PSY 101	Analytical Writing and Reading History of Political Thought Research Methods in Political Science I General Psychology I Free elective Term Credits	Credits 3.0 4.0 4.0 3.0 3.0 17.0
Term 4 ENGL 202 MUSC 130	Romanticism to Modernism Introduction to Music History elective (200-level and above HIST course) Statistics elective Science sequence course 1 (See degree requirements list) Term Credits	Credits 3.0 3.0 3.0 4.0 4.0 17.0
Term 5 ENGL 204 PSCI 240	Post-Colonial Literature II Comparative Government Free elective History elective (200-level and above HIST course) Science sequence course 2 (See degree requirements list) Term Credits	Credits 3.0 3.0 3.0 3.0 4.0 16.0
Term 6 ECON 201 PSCI 211 ANTH 110 Or	Principles of Microeconomics American Government II The Human Past	Credits 4.0 4.0 3.0
ANTH 101	Introduction to Cultural Diversity Free elective History elective (200-level and above HIST course) Term Credits	3.0 3.0 3.0 17.0
Term 7 ECON 202 PHIL 105	Principles of Macroeconomics	Credits 4.0

PSCI 220 PSCI 230	Critical Reasoning Constitutional and Judicial Process Research Methods in Political Science II Free elective Term Credits	3.0 3.0 4.0 3.0 17.0
Term 8 PSCI 250	American Foreign Policy Free electives Political Science electives (300-level and above PSCI courses) Term Credits	Credits 3.0 6.0 6.0 15.0
Term 9 PSCI 270	Problems of Individual Liberty and Government Authority Free electives Political Science electives (300-level and above PSCI courses) Term Credits	3.0 3.0 6.0 12.0
Term 10	Free electives Political Science electives (300-level and above PSCI courses) Term Credits	Credits 6.0 6.0 12.0
Term 11	Political Science electives (300-level and above PSCI courses) Free electives Term Credits	Credits 6.0 6.0 12.0
Term 12	Free electives Political Science electives (300-level and above PSCI courses) Term Credits	6.0 6.0 12.0
	Total Credits (minimum)	182.0

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Minor in Politics

Students are required to take 24 credits of coursework from the following categories:

Required courses

PSCI 100	Introduction to Political Science	4.0
PSCI 110	American Government I	4.0
PSCI 120	History of Political Thought	4.0
PSCI 130	Research Methods in Political Science I	4.0
PSCI 140	Introduction to Comparative Political Analysis	4.0
PSCI 150	International Politics	4.0

Political Science electives	12.0
12.0 credits of any additional 200-level or higher PSCI courses.	

Sociology

About the Major

Sociology is a broad discipline dealing with interpersonal behavior. It examines the behavior of social units as small as the family or two people riding an elevator and as large as a company, a city, a country, or the entire world. Because sociology critically examines "truths" frequently taken for granted, it does more than offer its own distinctive area of information. Training in sociology leads to a mode of critical thinking that enables one to push beyond established boundaries. Such a skill is invaluable in a wide range of professions.

Community-based research is done with and for community groups. It is research in which the community groups themselves help set the agenda of research questions so that the results are directly useful to them. It is a way through which the University as a whole can become more engaged with the wider community while promoting social justice. Students play a central role in this approach. They go out into the community to acquire hands-on experience relating to their classroom work

Sociology

Bachelor of Arts Degree: 182.0 credits

Required courses (incoming students, 2009/2010)

University Re	equirements	23.0- 27.0 Credits
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
UNIV 101	The Drexel Experience	2.0
	Two Mathematics courses	6.0-8.0
	Two Science courses	6.0-8.0
College Requ		44.0 52.0 Credits
Torcigii Lang	A minimum of two consecutive foreign language* courses	8.0- 16.0
department refree electives		, the
Humanities a		
	Four Humanities/Fine Arts courses	12.0
Social and Re	ehavioral Sciences	
COM 150	Mass Media and Society	3.0
SOC 101	Introduction to Sociology	3.0
	Two additional Social and Behavioral Sciences courses	6.0
International		0.0
	Two International Studies courses	6.0
Studies in Di	versity	
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
	One additional Studies in Diversity course	3.0
Sociology Co	ore Requirements	51.0 57.0 Credits
Social Justic	•	2.0
SOC 270	Theory of Applied and Community Sociology	3.0
ANTH 370	Ethnographic Methods	3.0
SOC 370	Practicum in Applied and Community Sociology	3.0-9.0
SOC 470 WI	Social Change and Social Planning	3.0

Theory Seque	ice	
COM 210	Theory and Models of Communication	3.0
SOC 260 WI	Classical Social Theory	3.0
ANTH 410	Cultural Theory	3.0
SOC 460 WI	Contemporary Social Theory	3.0
Mothodo Cogu		
Methods Sequi	Qualitative Research Methods	3.0
SOC 250	Research Methods	3.0
SOC 364	Computer-Assisted Data Analysis I	3.0
Writing Comm		
COM 230	Techniques of Speaking	3.0
COM 270 WI	Business Communication	3.0
COM 280	Public Relations	3.0
COM 375	Grant Writing	3.0
Students selec	ct four of the following core courses:	
SOC 205	Criminology and Criminal Justice	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 220	Wealth and Power	3.0
SOC 240	Urban Sociology	3.0
SOC 320 WI	Sociology of Deviant Behavior	3.0
SOC 330	Developing Nations	3.0
		Credits
Studente solor	et a minimum of 30.0 credits from the following courses:	
	et a minimum of 30.0 credits from the following courses:	3.0
ANTH 110	The Human Past	3.0
	The Human Past Biblical Archaeology	3.0 3.0 3.0
ANTH 110 ANTH 120	The Human Past Biblical Archaeology Topics on World Ethnography	3.0
ANTH 110 ANTH 120 ANTH 212	The Human Past Biblical Archaeology	3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective	3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior	3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition	3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology	3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future	3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 215	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 215 SOC 235	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 230	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 215 SOC 235 SOC 230 SOC 240	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 215 SOC 235 SOC 230 SOC 240 SOC 310	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350 CJ 360	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350 CJ 360	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II Juvenile Justice	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350 CJ 360 SOC 365	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II Juvenile Justice Computer-Assisted Data Analysis II	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 125 SOC 235 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350 CJ 360 SOC 365 SOC 380	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II Juvenile Justice Computer-Assisted Data Analysis II	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 120 SOC 235 SOC 235 SOC 230 SOC 240 SOC 310 SOC 335 SOC 350 CJ 360 SOC 365 SOC 380 SOC 490	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II Juvenile Justice Computer-Assisted Data Analysis II Special Topics in Sociology Directed Studies: Sociology Research Seminar I	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
ANTH 110 ANTH 120 ANTH 212 ANTH 220 ANTH 310 ANTH 310 ANTH 312 ANTH 380 SOC 110 SOC 115 SOC 125 SOC 225 SOC 235 SOC 230 SOC 240 SOC 330 SOC 340 SOC 350 CJ 360 SOC 365 SOC 380 SOC 490 SOC 491	The Human Past Biblical Archaeology Topics on World Ethnography Aging in Cross-Cultural Perspective Societies in Transition Approaches to Intercultural Behavior Special Topics in Anthropology Sociology of the Future Social Problems Sociology of the Family Sociology of the Aging Industrial Sociology Sociology of Health Women and Men in a Changing Society Urban Sociology Topics in Political Sociology Sociology of Education I Research Methods II Juvenile Justice Computer-Assisted Data Analysis II Special Topics in Sociology Directed Studies: Sociology Research Seminar I Sociology Research Seminar II	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0

PSY 252	Death and Dying	3.0
PSY 350	Advanced Social Psychology	3.0
UNIV 380	Special Topics: University-Wide	2.0 - 3.0

Free Electives	16.0- 34.0 Credits
Free electives	30.0- 35.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BA Sociology 5 YR UG Co-op Concentration

Term 1 ENGL 101 SOC 101 UNIV 101 MATH 121	Expository Writing and Reading Introduction to Sociology The Drexel Experience Calculus I	Credits 3.0 3.0 1.0 4.0
Or MATH 101	Introduction to Analysis I Foreign language course Philosophy (PHIL) elective Term Credits	4.0 4.0 3.0 18.0
Term 2 COM 150 ENGL 102 UNIV 101 MATH 122 Or MATH 102	Mass Media and Society Persuasive Writing and Reading The Drexel Experience Calculus II Introduction to Analysis II Foreign language course Term Credits	Credits 3.0 3.0 1.0 4.0 4.0 15.0
Term 3 ANTH 101 ENGL 103 SOC 260	Introduction to Cultural Diversity Analytical Writing and Reading Classical Social Theory Foreign language course Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 4.0 3.0-4.0 16.0-17.0
Term 4 COM 220 SOC 250	Introduction to Communication Research Research Methods I Foreign language course Sociology core course (See degree requirements) Writing/Communication elective (See approved course list) Term Credits	Credits 3.0 3.0 4.0 3.0 3.0 16.0
Term 5 ANTH 370 COM 210 SOC 270	Ethnographic Methods Theory and Models of Communication Theory of Applied and Community Sociology Free elective Science elective (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0-16.0
Term 6 SOC 364	Computer-Assisted Data Analysis Diversity studies elective Additional program course (See degree requirements list) Social and Behavioral Sciences elective Writing/Communication elective (See approved course list) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0

Term 7 SOC 470	Social Change & Planning International studies elective Sociology core course (See degree requirements) Additional program course (See degree requirements list) Social and Behavioral Sciences elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 15.0
Term 8 SOC 370	Practicum in Applied and Community Sociology Free elective Sociology core courses (See degree requirements) Additional program course (See degree requirements list) Term Credits	3.0 3.0 6.0 3.0 15.0
Term 9	Free elective Humanities/Fine Arts elective International studies elective Additional program courses (See degree requirements list) Term Credits	3.0 3.0 3.0 3.0 6.0 15.0
Term 10 ANTH 410	Cultural Theory Free elective Humanities/Fine Arts elective Additional program courses (See degree requirements list) Term Credits	3.0 3.0 3.0 3.0 6.0 15.0
Term 11 SOC 460	Contemporary Social Theory Free electives Additional program courses (See degree requirements list) Term Credits	Credits 3.0 6.0 6.0 15.0
Term 12	Free electives Humanities/Fine Arts elective Additional program courses (See degree requirements list) Term Credits Total Credits (minimum)	Credits 6.0 3.0 3.0 12.0

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Minor in Sociology

The sociology minor is designed to give students specializing in other fields a broader knowledge of contemporary social issues and the ability to analyze them in a reasoned fashion. For students majoring in such fields as business and engineering, the minor helps develop skills in critical thinking that go beyond the acquisition of specialized, professional techniques. For students majoring in another area of the liberal arts, the minor offers the opportunity to place the issues raised in the major discipline within a larger social context.

Required courses

SOC 250	Research Methods I	3.0
SOC 260 WI	Classical Social Theory	3.0
SOC 460 WI	Contemporary Social Theory	3.0
Five of the foll	owing courses	15.0
ANTH 220	Aging in Cross-Cultural Perspective	3.0
ANTH 310	Societies in Transition	3.0
SOC 110	Sociology of the Future	3.0
SOC 115	Social Problems	3.0
SOC 120	Sociology of the Family	3.0
SOC 125	Sociology of the Aging	3.0
SOC 205	Criminology and Criminal Justice	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 215	Industrial Sociology	3.0
SOC 220	Wealth and Power	3.0
SOC 225	Technology and Aging in Industrial Societies	3.0
SOC 230	Women and Men in a Changing Society	3.0
SOC 235	Sociology of Health	3.0
SOC 310	Topics in Political Sociology	3.0
SOC 320 WI	Sociology of Deviant Behavior	3.0
SOC 330	Developing Nations and the International Division of Labor	3.0
SOC 335	Sociology of Education and Literacy I	3.0
SOC 336	Sociology of Education and Literacy II	3.0
SOC 340	Globalization	3.0
SOC 350	Research Methods II	3.0
SOC 470 WI	Social Change and Social Planning	3.0

Unified Science

A growing number of careers require a strong foundation in science and mathematics, one that emphasizes a broad, balanced view rather than an intensive study of a single discipline. Patent attorneys, science writers and illustrators, textbook editors, and high school science and mathematics teachers are among those who require such a background.

The unified science major provides a strong grounding in science and mathematics. The foundation in chemistry, biology, physics, and mathematics, combined with electives, permits students adequate latitude to plan with an advisor a highly individualized program. Special requirements, such as courses for entrance to medical school or law school, should be identified as early as possible so they can be scheduled into the program.

Unified science students also complete a range of liberal arts requirements, and they have the opportunity to take a wide variety of electives in the sciences and other areas. Because of this flexibility, each student can develop a highly individualized program.

Unified science may be an appropriate choice for students preparing for professional studies in medicine, dentistry, veterinary medicine, law, or other areas. It is an ideal option for those who wish to combine science studies with another field, such as business or technical and science communication.

Because the major includes much flexibility in course scheduling, unified science students are able to complete one or two minors, or even a second major. Teacher certification is also available as a complement to the unified science major. Drexel offers certification in elementary education and secondary education (biology, chemistry, earth and space science, environmental education, general science, mathematics, or physics).

Students who are interested in the sciences but who aren't yet sure of a specific major should also explore the unified science option. The major allows these students to start their undergraduate studies while considering their interests in science and mathematics, bioscience and biotechnology, chemistry, computer science, environmental science, mathematics, nutrition and food science, and physics and atmospheric science. Unified science students may also take advantage of the University's offerings in the humanities and social sciences, business, design arts, engineering, and information science and technology.

Unified Science

Bachelor of Science Degree: 185.5 credits
Required courses (incoming students, 2009/2010)

General education requirements

	•	
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
MATH 121	Calculus I	4.0
MATH 122	Calculus II	4.0
MATH 123	Calculus III	4.0
MATH 200	Multivariate Calculus	4.0
MATH 201	Linear Algebra	4.0
MATH 210	Differential Equations	4.0
UNIV 101	The Drexel Experience	2.0
	Business electives	6.0
	Computer programming	3.0
	Liberal studies electives	12.0
	Free electives	41.0

Science requirements		Credits
BIO 121	Physiology and Nutrition	4.5
BIO 122	Cells and Genetics	4.5
BIO 123	Organismal Diversity and Ecology	4.5
BIO 214	Principles of Cell Biology	3.0
BIO 215	Techniques of Cell Biology	2.5
BIO 218	Principles of Molecular Biology	3.0
BIO 219	Techniques of Molecular Biology	2.5
BIO 306	Biochemistry Laboratory	2.0
BIO 311	Metabolism	4.0
BIO 404	Structure and Function of Biomolecules	4.0
CHEM 101	General Chemistry I	3.5
CHEM 102	General Chemistry II	4.5
CHEM 241	Organic Chemistry I	4.0
CHEM 242	Organic Chemistry II	4.0
PHYS 101	Fundamentals of Physics I	4.0
PHYS 102	Fundamentals of Physics II	4.0
PHYS 201	Fundamentals of Physics III	4.0
PHYS 217	Thermodynamics	4.0
	Physics elective	3.0
	Science sequence	8.0
	Science elective	8.0
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Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year.

Recommended Plan Of Study

BS Unified Science 5 YR UG Co-op Concentration

Term 1 BIO 121 CHEM 101	Physiology of Nutrition General Chemistry I	Credits 4.5 3.5
ENGL 101	Expository Writing and Reading	3.0
MATH 121	Calculus I	4.0
<u>UNIV 101</u>	The Drexel Experience	1.0
	Term Credits	16.0
Term 2		Credits
BIO 122	Cells and Genetics	4.5
CHEM 102	General Chemistry II	4.5
ENGL 102 MATH 122	r croadore writing and reading	3.0
UNIV 101	Calculus II	4.0 1.0
01117 101	The Drexel Experience Term Credits	17.0
Term 3		Credits
BIO 123	Organismal Diversity & Ecology	4.5
ENGL 103	Analytical Writing and Reading	3.0
MATH 123	Calculus III	4.0
PHYS 101	Fundamentals of Physics I	4.0
•	Term Credits	15.5
Term 4		Credits
CHEM 241	Organic Chemistry I	4.0
MATH 200	Multivariate Calculus	4.0
PHYS 102	Fundamentals of Physics II	4.0
	Free elective	3.0
	Term Credits	15.0
Term 5		Credits
CHEM 242	Organic Chemistry II	4.0
MATH 201	Linear Algebra	4.0
PHYS 201	Fundamentals of Physics III	4.0
•	Free elective	3.0
	Term Credits	15.0
Term 6		Credits
BIO 306	Biochemistry Laboratory	2.0
BIO 311	Metabolism	4.0
MATH 210	Differential Equations	4.0
PHYS 212	Physics IV Liberal arts elective	4.0
	Term Credits	3.0 17.0
Term 7		Credits
BIO 218	Principles of Molecular Biology	3.0
BIO 219	Techniques in Molecular Biology	2.5
BIO 404	Structure and Function of Biomolecules	4.0
	Free elective	3.0
•	Liberal arts elective	3.0
•	Term Credits	15.5

Term 8		Credits
BIO 214	Principles of Cell Biology	3.0
BIO 215 PHYS 217	Techniques in Cell Biology	2.5
PH13 211	Thermodynamics	4.0
	Liberal arts elective	3.0
•	First course in a 3-part laboratory science sequence Term Credits	4.0-4.5 <i>16.5-17.0</i>
	Term Creaks	10.5-17.0
Term 9		Credits
·	Computer programming elective	3.0
•	Liberal arts elective	3.0
	Science elective (See degree requirements)	4.0
	Second course in a 3-part laboratory science sequence	4.0
	Term Credits	14.0
Term 10		Credits
1	Business elective	3.0
•	Free electives	12.0
•	Term Credits	15.0
Term 11		Credits
1	Business elective	4.0
•	Free electives	6.0
•	Science elective (See degree requirements)	4.0
•	Term Credits	14.0
Term 12		Credits
ı	Free electives	13.0
•	Term Credits	13.0
	Total Credits (minimum)	183.5-184.0

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Urban Environmental Studies

About Urban Environmental Studies

Ecological problems and their consequences are concentrated in urban areas. Problems such as air pollution, exposure to toxic chemicals, noise, urban sprawl and groundwater contamination are endemic in cities, causing damage to ecological systems, property values, and human health. In the years to come, there will be an increasingly urgent need to move toward solving these problems.

The causes and the consequences of urban ecological problems are extremely complex, involving interplays between the physical and biological characteristics of the region, the development of the urban area's infrastructure, and the social, economic and political situation of the city. Solutions derived from an inadequate understanding of the confluence these factors often entail costly, ineffective regulations; unintended consequences that further damage the ecosystem; incompatible land uses; and increases in preventable health problems among urban populations. In an era of shrinking budgets and growing environmental problems, it is more urgent than ever that the people who will be charged with crafting solutions be broadly trained and thoroughly aware of all the ramifications of planning and regulatory decisions.

About the Curriculum

Producing people trained to meet the urban ecological challenges ahead requires a holistic, interdisciplinary approach to education, in which the student gains knowledge in many diverse areas of study. The BS in Urban Environmental Studies is a multidisciplinary program designed to meet the needs of governmental agencies, corporations, and nonprofit organizations who develop, implement, or are impacted by environmental policies.

For more information contact the Department of Culture and Communications at Drexel University.

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Urban Environmental Studies

General requirements

Bachelor of Science Degree: 184.0 credits Required courses (incoming students, 2009/2010)

UNIV 101	The Drexel Experience	2.0
ANTH 101	Cultural Diversity: Introduction to Cultural Anthropology	3.0
COM 380	Special Topics in Communication Theory: Environmental Communication	3.0
PHIL 341	Philosophy of the Environment	3.0
PSCI 110	American Government	4.0
ECON 201	Principles of Microeconomics	4.0
ECON 202	Principles of Macroeconomics	4.0
ENGL 101	Expository Writing and Reading	3.0
ENGL 102	Persuasive Writing and Reading	3.0
ENGL 103	Analytical Writing and Reading	3.0
ENGL 300	Literature & Science	3.0
ENGL 325	Topics in World Literature: Environmental Literature	3.0
SOC 101	Introduction to Sociology	3.0
	Two history electives	6.0
	owing math sequences:	
MATH 101	Introduction to Analysis I	4.0
MATH 102	Introduction to Analysis II	4.0
or	Calaulua I	4.0
	Calculus I Calculus II	4.0 4.0
or MATH 121 MATH 122		4.0 55.0
or MATH 121 MATH 122	Calculus II	4.0 55.0
or MATH 121 MATH 122 Urban Enviro	Calculus II nmental Studies Core Requirements	4.0 55.0 Credits
or MATH 121 MATH 122 Urban Enviro	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods	4.0 55.0 Credits
or MATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods	4.0 55.0 Credits
or MATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370 Theory Seque	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods nce:	4.0 55.0 Credits 3.0 3.0
or MATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370 Theory Sequence COM 210	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods nce: Theory and Models of Communication	4.0 55.0 Credits 3.0 3.0
MATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370 Theory Sequel COM 210 SOC 260 WI	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods nce: Theory and Models of Communication Contemporary Social Theory Cultural Theory	3.0 3.0 3.0 3.0
WATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370 Theory Sequel COM 210 SOC 260 WI ANTH 410	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods nce: Theory and Models of Communication Contemporary Social Theory Cultural Theory	3.0 3.0 3.0 3.0
or MATH 121 MATH 122 Urban Enviro SOC 270 ANTH 370 Theory Sequel COM 210 SOC 260 WI ANTH 410 Methods Sequel	Calculus II nmental Studies Core Requirements Theory/ Applied, and Community Sociology Ethnographic Methods nce: Theory and Models of Communication Contemporary Social Theory Cultural Theory ence:	3.0 3.0 3.0 3.0 3.0

55.0

Credits

Other Social Science courses:

ANTH 360	Culture and the Environment	3.0
ECON 351	Resource and Environmental Economics	4.0
ENVS 370	Practice of Environmental Economics	3.0
PSCI 331	Environmental Politics	3.0
PSCI 427	Special Studies in Political Science: Urban Politics	3.0
SOC 240	Urban Sociology	3.0
ENVP 360	Environmental Movements in America	3.0
ENVP 345	Sociology of the Environment	3.0
ENVP 346	Environmental Justice	3.0
ENVP 365	Introduction to Environmental Policy Analysis	3.0

Physical/Natural Science Requirements

51.0 Credits

BIO 102	Biology I: Cells and Tissues	4.0
BIO 104	Biology II: Growth and Heredity	4.0
BIO 106	Organismal Biology	4.0
CHEM 151	Applied Chemistry	3.0
ENVS 260	Environmental Science and Society I	3.0
ENVS 262	Environmental Science and Society II	3.0
ENVS 284 WI	Physiological and Population Ecology	5.0
ENVS 286 WI	Community and Ecosystem Ecology	5.0
ENVS 321	Environmental Health*	3.0
ENVS 338	Biodiversity and Conservation	3.0
ENVS 342	Bioclimatology	3.0
ENVS 436	Principles of Toxicology I	3.0
ENVS 441 WI	Issues in Global Change I	2.0
ENVS 442	Issues in Global Change II	2.0
PHEV 145	Weather 1: Climate and Global Change	4.0

Urban Studies Electives

9.0 Credits

Students select three of the following Urban Environmental Studies electives:

ANTH 310	Societies in Transition	3.0
BIO 210	Biology of Cancer	2.0
COM 310	Mass Media and Society	3.0
ENVS 316	Sanitary Microbiology	3.0
ENVS 330	Aquatic Ecology	3.0
ENVS 335	Industrial Safety	3.0
ENVS 431	Environmental Epidemiology	3.0
ENVS 437	Principles of Toxicology II	3.0
HIST 285	Technology in Historical Perspective	3.0
PSCI 371	Science, Technology and Public Policy	3.0
SOC 210	Race and Ethnic Relations	3.0
SOC 220	Wealth and Power	3.0
SOC 340	Globalization	3.0
SOC 343	American Experience of Wilderness	3.0
SOC 344	Social Movements	3.0
SOC 350	Research Methods II	3.0
SOC 365	Data Analysis II	3.0

SOC 380	Special Topics in Sociology*	3.0
ANTH 380	Special Topics in Anthropology*	3.0
COM 380	Special Topics in Communication Theory*	3.0

^{*}Additional special topics courses as appropriate.

Electives	14.0 Credits
Free electives	14.0

Writing-Intensive Course Requirements

In order to graduate, all students beginning with the entering class of 2002/01 (fall, 2002) must pass three writing-intensive courses after their freshman year. Two writing-intensive courses must be in a student's major. The third can be in any discipline. Students are advised to take one writing-intensive class each year, beginning with the sophomore year, and to avoid "clustering" these courses near the end of their matriculation. Transfer students need to meet with an academic advisor to review the number of writing-intensive courses required to graduate.

A "WI" next to a course in this catalog indicates that this course can fulfill a writing-intensive requirement. Departments will designate specific sections of such courses as writing-intensive. Sections of writing-intensive courses are not indicated in this catalog. Students should check the section comments in Banner when registering. Students scheduling their courses in Banner can also conduct a search for courses with the attribute "WI" to bring up a list of all writing-intensive courses available that term. For more information on writing-intensive courses, see the Drexel University Writing Program's Writing-Intensive Course page.

Recommended Plan Of Study

BS Urban Environmental Studies 4 YR UG No Co-op Concentration

Term 1 BIO 102 ENGL 101 MATH 101 SOC 101 UNIV 101	Biology I: Cells and Tissues Expository Writing and Reading Introduction to Analysis I Introduction to Sociology The Drexel Experience Term Credits	Credits 4.0 3.0 4.0 3.0 1.0
Term 2 BIO 104 ENGL 102 MATH 102 UNIV 101	Biology II: Growth and Heredity Persuasive Writing and Reading Introduction to Analysis II The Drexel Experience Free elective Term Credits	Credits 4.0 3.0 4.0 1.0 3.0 15.0
Term 3 ANTH 101 BIO 106 ENGL 103 PSCI 110 SOC 240	Cultural Diversity: Introduction to Cultural Anthropology Biology III: Organismal Biology Analytical Writing and Reading American Government I Urban Sociology Term Credits	Credits 3.0 4.0 3.0 3.0 3.0 16.0
Term 4 ANTH 360 CHEM 151 COM 220 ECON 201 ENVS 260	Culture and the Environment Applied Chemistry Introduction to Communication Research Principles of Microeconomics Environmental Science & Society I Term Credits	Credits 3.0 3.0 3.0 4.0 3.0 16.0
Term 5 ECON 202 ENVP 345 ENVS 262 SOC 260	Principles of Macroeconomics Sociology of the Environment Environmental Science & Society II Classical Social Theory Urban Environmental Studies course (See degree requirements) Term Credits	Credits 4.0 3.0 3.0 3.0 3.0 16.0
Term 6 PSCI 331 SOC 250 SOC 270	Environmental Politics Research Methods I Theory of Applied and Community Sociology Free elective Urban Environmental Studies course (See degree requirements) Term Credits	Credits 3.0 3.0 3.0 3.0 3.0 15.0
Term 7 ENVP 346 ENVP 360 PHEV 145	Environmental Justice Environmental Movements in America	Credits 3.0 3.0

PSCI 427	Weather I: Climate and Global Change Urban Politics Free elective Term Credits	4.0 3.0 3.0 16.0
Term 8 ANTH 370 COM 210 ENGL 325 ENVS 284	Ethnographic Methods Theory and Models of Communication Topics in World Literature: Non-Western Environmental Literature Physiological and Population Ecology Free elective Term Credits	3.0 3.0 3.0 3.0 3.0 3.0 15.0
Term 9 ECON 351 ENGL 300 ENVS 370 SOC 364	Resource and Environmental Economics Literature and Science Practice of Environmental Economics Computer-Assisted Data Analysis I History elective Term Credits	4.0 3.0 3.0 3.0 3.0 3.0
Term 10 ENVP 365 ENVS 286 ENVS 436 PHIL 341	Introduction to Environmental Policy Analysis Community and Ecosystem Ecology Principles of Toxicology I Philosophy of the Environment Term Credits	3.0 3.0 3.0 3.0 3.0 12.0
Term 11 ANTH 410 ENVS 342 ENVS 441 HIST 285	Cultural Theory Bioclimatology Issues Global Change I: Seminar Technology in Historical Perspective Urban Environmental Studies course (See degree requirements) Term Credits	3.0 3.0 2.0 3.0 3.0 14.0
Term 12 COM 380 ENVS 321 ENVS 338 ENVS 442	Special Topics in Communication: Environmental Communication Environmental Health Biodiversity and Conservation Issues Global Climate Change II: Research Free elective Term Credits Total Credits (minimum)	3.0 3.0 3.0 2.0 3.0 14.0

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Minor in Urban Environmental Studies

The urban environmental studies minor is an interdisciplinary minor designed to give students specializing in other fields a background in contemporary urban environmental issues and the ability to analyze such issues. For students majoring in such fields as business and engineering, the minor in urban environmental studies will provide them with the tools to make better decisions about products or projects related to environmental economics, politic pollutants, environmental policy, and environmental justice. For students who are liberal arts majors, the minor in urban environmental studies offers the opportunity to focus on the social- and natural-science aspects of the urban environment, and to be prepared for issues they may encounter in their careers.

The minor requires a minimum of 24 credits. This includes a core of six courses and at least six credits of natural science electives.

Required courses

ANTH 360	Culture and the Environment	3.0
ENVS 260	Environmental Science and Society I	3.0
ENVS 262	Environmental Science and Society II	3.0
SOC 240	Urban Sociology	3.0
SOC 341	Environmental Movements in the U.S.	3.0
SOC 345	Sociology of the Environment	3.0

Natural Science Electives

Students select a minimum of 6 credits from the following electives:

BIO 102	Biology I: Cells and Tissues	4.0
BIO 106	Organismal Biology	4.0
CHEM 151	Applied Chemistry	3.0
PHEV 145	Weather 1: Climate and Global Change	4.0
ENVS 284 WI	Physiological and Population Ecology	5.0
ENVS 286 WI	Community and Ecosystem Ecology	5.0
ENVS 321	Environmental Health*	3.0
ENVS 338	Biodiversity and Conservation	3.0
ENVS 436	Toxicology and Human Physiology	3.0
ENVS 441	Issues in Global Climate Change I	2.0
ENVS 442	Issues in Global Climate Change II	2.0

^{*}BIO 114, BIO 115 or BIO 117 are prerequisites for ENVS 321.

Minor in Africana Studies

The minor in Africana Studies was created to provide the opportunity for undergraduate students throughout the University to gain an understanding of and background in the history and cultures of peoples of African descent in North and South America, the Caribbean, and Africa. This interdisciplinary minor includes courses in anthropology, history, literature, music, political science, and sociology, and provides an opportunity for directed study in areas of particular interest to the students. The Africana Studies minor has intrinsic intellectual value and helps prepare individuals to become contributors to an increasingly pluralistic society. At the same time, this minor allows students interested in business, the sciences, engineering, government, and social services to present to prospective employers a unique academic background.

Students are required to take 24 credits: 6 required credits and 18 elective credits.

Required courses

AFAS 101	Introduction to Africana Studies	3.0
AFAS 201	Cross-Currents in Africana Studies	3.0

Students take an additional 18.0 credits including—but not limited to— the following courses. (Students must check with the Program Director for approval prior to making substitutions.)

prior to making	, cancentament,	
AFAS 250	African American Herstories	3.0
AFAS 295	Special Topics in Africana Studies	3.0
AFAS 401	Urban Social Justice Practicum I	3.0
AFAS 402	Urban Social Justice Practicum II	3.0
AFAS 301	Politics of Hip Hop	3.0
AFAS 395	Special Topics in Africana Studies	3.0
ANTH 101	Cultural Diversity	3.0
ANTH 310	Societies in Transition: The Impact of Modernization and the Third World	3.0
ENGL 203 WI	Post-Colonial Literature I	3.0
ENGL 204	Post-Colonial Literature II	3.0
ENGL 325	Special Topics in World Literature: Latin American Literature	3.0
HIST 216	Freedom in America	3.0
HIST 215	American Slavery	3.0
MUSC 107	Jazz Ensemble and Combo	3.0
MUSC 333	African-American Music in the United States	3.0
PSCI 354	US and Third World Politics	3.0
PSCI 372	City in Urban Politics	3.0
WMST 240	Women in Society/Global Context	3.0
WMST 280	Special Topics in Women's Studies: Language, Gender and Power	3.0

Minor in Greek Studies

The minor in Greek Studies is designed to be interdisciplinary, with concentration on Mediterranean issues, focusing on and starting from the island of Crete. The minor consists of a minimum of 24 credits, 17 of which are elective courses chosen with a focus on Greek Studies. Because the scope of the minor embraces Hellenism from antiquity to today, students may select their electives depending on the aspect of Greek studies they desire to focus on (for example, mythology, philosophy, performance).

Required courses		7.0 Credits
	Greek language course (GREC 101, GREC 102 or GREC 103)	4.0
ANTH 212	Anthropology of the Mediterranean	3.0
or		
GREC 212	Greek Folklore	

Greek studies electives

17.0 Credits

Students select a minimum of 17.0 credits from the following courses:

ANTH 212	Anthropology of the Mediterranean*	3.0
ARTH 101	History of Art I: Ancient to Medieval	3.0
ENGL 200 WI	Classical to Medieval Literature	3.0
ENGL 325	Topics in World Literature (if Greek Literature is the topic)	3.0
ENGL 335	Mythology	3.0
GREC 101	Modern Elementary Greek I*	4.0
GREC 102	Modern Elementary Greek II*	4.0
GREC 103	Modern Elementary Greek III*	4.0
GREC 212	Greek Folklore*	3.0
GREC 225	Greek Music and Dance	3.0
GREC 380	Special Topics in Greek Studies	variable
GREC 399	Independent Study in Greek	variable
HIST 280	History of Science I	3.0
MUSC 380	Special Topics in Music (when offered as Mediterranean Ensemble)	1.0
PHIL 201	History of Western Philosophy I	3.0

Drexel in Crete Study Abroad Program course offerings:

ANTH 380	Special Studies in Anthropology: Crete Through the Looking Glass	3.0
LANG 180	Special Topics in Languages: Communicate in Greek: Philoxenia	3.0
IAS 360	Special Topics in World Civilization: Cretan Civilization: Unraveling Ariadne's Thread	3.0
GREC 380	Special Topics in Greek Studies: Greek and Cretan History, Economy and Society	3.0

^{*} Students may only select this course as a Greek Studies elective ifÁ[⁄Á¦^ç∄ັ•∫Á&@•^} È

The Louis Stein Minor in Judaic Studies

The Louis Stein Minor in Judaic Studies, housed within the College of Arts and Sciences, is designed to give students the opportunity to explore and understand the history, culture, politics, and religion of the Jewish people. Through interdisciplinary coursework and directed field study, students investigate the Jewish experience from both a contemporary and a historical perspective.

The Louis Stein Minor in Judaic Studies requires 24 credits: 9 from required courses, and 15 from electives. Students can apply a maximum of 6 credits toward the minor from field study under the supervision of the academic advisor. Currently, the required courses are as follows:

Required courses		9.0
JUDA 201	Jewish Literature and Civilization*	3.0
JUDA 202	Jewish Life and Culture in the Middle Ages**	3.0
JUDA 203	Modern Jewish History***	3.0

^{*} Offered concurrently with ENGL 350 Jewish Literature and Civilization.

Courses offered as electives have included: Biblical Archeology, Biblical Narrative: Images of Leadership, Jewish Ethical Literature, Jewish Cultural Tapestry, Jewish Women in Literature and History, A Thousand Years of Jewish Life Through Yiddish Literature, Yiddish Literature and Culture, The Holocaust, Holocaust Testimonies, The American Jewish Experience, Language and Cultural Diversity in the USA, Jewish American Writers, Israel: Language and Society, Israeli Cinema, Contemporary Jewish Life, Hebrew Language.

For more information, contact Kathleen Carll, Associate Director, Judaic Studies Program, 215-895-6388, judaicstudies@drexel.edu or Professor Rakhmiel Peltz, Director of Judaic Studies, 215-895-1499, rakhmiel.peltz@drexel.edu. The Judaic Studies Program offices are located in Room 331 of Hagerty Library.

^{**} Offered concurrently with HIST 253 Jewish Life and Culture in the Middle Ages.

^{***} Offered concurrently with HIST 249 Modern Jewish History.

Minor in Women's Studies

The minor in women's studies is intended to give students a broad, interdisciplinary understanding of the ways in which gender interacts with race, age, class, and sexual orientation to shape human consciousness and the social, political, and cultural organization of society. In addition, the minor is intended to enrich the educational experience of students. It may also provide both men and women with tools for understanding and coping with the larger societal systems in which they must operate as both students and professionals. Because business and industry are increasingly sensitive to issues such as sex discrimination, sexual harassment, equal pay for comparable work, parental leave, and day care, students with a minor in women's studies will have a definite edge over other applicants for managerial and policy-making positions.

Students are required to take 24 credits of coursework as follows:

Required courses

WMST 101	Introduction to Women's Studies	3.0
WMST 301	Seminar in Feminist Theory	3.0
	Electives*	18.0

*Chosen from an approved list including departmentally cross-linked courses and WMST 280 (Special Topics) courses.

Electives include		Credits
CJ 274	Sex, Violence and Crime on the Internet	3.0
CJ 275	Issues in Domestic Violence	3.0
ENGL 355 WI	Women and Literature	3.0
HIST 224	Women in American History	3.0
HIST 586	Gender and Technology*	3.0
PSCI 573	Gender, Race, and Science*	3.0
PSY 356I	Women's Health Psychology	3.0
SOC 230	Women and Men in a Changing Society	3.0
WMST 240	Women/Society in a Gobal Context	3.0
WMST 250	African American Herstories	3.0
WMST 280	Special Topics in Women's Studies	3.0
WMST 299	Independent Study	1.0- 12.0
WMST 308	Queer Theory	3.0

^{*}By permission only.

Certificate in Medical Humanities

19.0 credits

About the program

Designed for students majoring in any of the humanities, social sciences, biological sciences, health professions, or nursing, the Certificate in Medical Humanities aims to promote dialogue and mutual appreciation for various approaches to health related issues.

The primary goal of the program is to provide students with an interdisciplinary framework for systematically studying the multiple dimensions of illness, healing, and mortality from both personal and cultural perspectives. This format allows students to explore the limitations of exclusively scientific, quantitative approaches to illness and healing.

The choice of courses within designated disciplines fosters the kind of focused variety useful in developing a rich perspective on the connections among humanities, health sciences and society in understanding conceptions of the body and care giving. A one-credit seminar specifically designed for students in this program (to be taken once during each academic year for a total of three credits) further provides intellectual cohesiveness and a sense of community leading up to the capstone Seminar in Medical Humanities. Advisors to the program will help students choose courses best suited for their personal and professional interests. Applicable courses may change as new courses are offered by various departments.

Opportunities

Those students who successfully complete the program will receive a certificate in Medical Humanities. This certificate highlights the student's proficiency in an interdisciplinary approach to health related issues not easily visible through a list of courses on a transcript.

This distinction should enhance students' professional opportunities, whether in employment, graduate studies—including medical school—and research. The training acquired through the requirements for the certificate will also deepen student's experiences in these arenas once they embark on the next stage of their careers.

Additional information

For additional information, contact the program director:

Emilie. S. Passow, PhD
Department of English and Philosophy
College of Arts and Sciences, Drexel University
ep43@drexel.edu

Requirement	s	Credits
HUM 315	Perspectives in Medical Humanities	3.0
ENGL 470	Capstone Seminar in Medical Humanities	3.0

English

Students select one of the following literature courses:

ENGL 360	Literature and Society: Portrayals of Mental Disorders	3.0
ENGL 370	Topics in Literature and Medicine: Illness and Healing in Literature	3.0
ENGL 370	Topics in Literature and Medicine: The Physician in Literature and Film	3.0
ENGL 370	Topics in Literature and Medicine: Health Matters in Drama	3.0

Philosophy

Students select one of the following philosophy courses	Students select	one of the followin	a philosoph	v courses
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PHIL 251	Ethics	3.0
PHIL 321	Biomedical Ethics	3.0
PHIL 355	Philosophy of Medicine	3.0
PHIL 361	Philosophy of Science	3.0

Africana Studies

AFAS 395	Special Topics in Africana Studies: Race, Disease, and History	3.0
AFAS 395	Special Topics in Africana Studies: HIV/Aids in Africa	3.0

Anthropology

ANTH 210	Worldview: Science, Religion, Magic	3.0
ANTH 220	Aging in the Cross-Cultural Perspective	3.0

Art History

ARTH 320	Art in the Age of Technology	3.0
ARTH 465	Special Topics in Art History	3.0

Biology

BIO 212	Biotechnology	3.0
BMES 338	Biomedical Ethics and Law	3.0

Environmental Studies

ENVS 321	Environmental Health	3.0

History

HIST 280	History of Science I	3.0
HIST 285	Technology in Historical Perspective	3.0

Psychology

PSY 242	Psychology of Disability	3.0
PSY 244	Culture and Personality	3.0
PSY 252	Death and Dying	3.0
PSY 255	Health Psychology	3.0
PSY 356	Women's Health Psychology	3.0

Sociology

SOC 120	Sociology of the Family	3.0
SOC 125	Sociology of the Aging	3.0
SOC 225	Technology and the Aging in Industrial Societies	3.0
SOC 235	Sociology of Health	3.0