

# School of Arts and Sciences

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# School of Arts and Sciences

## Mission

The School of Arts and Sciences affirms the Mission of Holy Family University and accepts the centrality of the School's role and responsibility in accomplishing its goals. The University seeks "direction and inspiration from the life and teaching of Jesus Christ, affirms the values of the Judeo-Christian tradition, and witnesses the dignity of the human person and the oneness of the human family." (University Mission Statement) In this context the School of Arts and Sciences commits itself to the search for and integration of knowledge and through its disciplines, dynamically promotes the growth of the following capacities within each student:

- Religious and spiritual values
- Self-knowledge and insight
- Moral and ethical sensibilities
- Enduring intellectual curiosity
- Aesthetic appreciation
- Critical, creative and analytical thinking
- Articulate written and oral communication skills
- Scientific understanding and technological skills
- Service and responsibility to the community
- Informed historical, cultural and social perspectives

## Contact Information

School Dean: Michael W. Markowitz, PhD

## Undergraduate Programs

Division Head: Mathematics and Sciences – Lynn Della Pietra, PhD

Division Head: Art, Communications and Humanities – John Woznicki, PhD

## Graduate Programs

Director: Master of Science in Counseling Psychology – George Colton, EdD

Director: Master of Arts in Criminal Justice – Leanne Owen, PhD

For information on the Graduate Programs please visit [www.holyfamily.edu](http://www.holyfamily.edu).

## Undergraduate Degree Programs

Bachelor of Arts degree programs include:

- Art
  - Concentrations in:*
  - Studio Art
  - Art Education

- Pre-Art Therapy
- Biochemistry
- Biology
- Communications
  - Concentrations in:*
    - Journalism
    - Media Arts
    - Public Relations
- Criminal Justice
- English
- History
- Interdisciplinary Humanities
- Mathematics
- Psychobiology
- Psychology
  - Concentrations in:*
    - General Psychology
    - Mental Health
    - Research
- Psychology for Business
- Religious Studies
- Sociology
  - Concentrations in:*
    - General Sociology
    - Child and Family Services
    - Public Health

**Bachelor of Science degree program includes:**

- Biology with Clinical Internship in Medical Technology

**Minors**

- Actuarial Science
- American Studies
- Studio Art
- Chemistry
- Communications
- Criminal Justice
- English Literature
- History
- Mathematics
- Middle School Mathematics
- Natural Sciences
- Philosophy
- Political Science
- Pre-Law
- Psychology
- Religious Studies
- Sociology
- Spanish

**Courses**

- Anthropology
- Chemistry
- French
- General Sciences
- Geography
- German
- Italian
- Mandarin
- Music
- Polish
- Philosophy
- Physics
- Political Science
- Spanish
- Theater



# Degree Programs in the Arts and Sciences

## Art

Art Education, Pre-Art Therapy, Studio Art

### Goals

- To provide students with foundational skills in art making.
- To facilitate a broad knowledge and appreciation of art history and its methodologies.
- To foster development in students' critical judgment required for problem solving and the skill needed to analyze and interpret art works.
- To cultivate student creativity in art making
- To introduce students to diverse perspectives in art creation and interpretation.
- To prepare students for a career in an arts-related profession or for graduate study.

## Studio Art

### Requirements

Core Curriculum: BA Requirements (credits)..... 45

### Concentration

Studio Arts (36 credits + 12 elective credits) ..... 48

All concentration requirements must be taken in addition to the core requirements.

ARTS	102	Art Appreciation.....	3
	213	Art History: Ancient to Renaissance.....	3
	214	Art History: Renaissance to Modern.....	3
	217	Sculpture I.....	3
	223	Two-Dimensional Design.....	3
	224	Three-Dimensional Design.....	3
	225	Drawing and Composition.....	3
	226	Drawing from the Model.....	3
	319	Painting I.....	3
	325 or 326	Seminars in Art History.....	3
	327	Advanced Studio Art III.....	3
	427	Research Seminar.....	3
	428	Independent Project.....	3

Twelve credits of art electives chosen from among the following:

ARTS	210, 211	Watercolor I, II.....	3, 3
	218	Sculpture II.....	3
	315	Graphic Design.....	3
	316	Digital Photography.....	3
	317	Computer Illustration.....	3

320	Painting II.....	3
321, 322	Ceramics I, II.....	3, 3
323, 324	Printmaking I, II.....	3, 3
431-499	Special Topics .....	3

**Other Requirements**

- A Senior exhibit
- Successful completion of comprehensive exam in Art History
- Portfolio presentation.

**Art Education**

K-12 Certification — to teach Art in Grades K-12: see Teacher Education Requirements page 168.

**Pre-Art Therapy**

**Concentration:**

Pre-Art Therapy. All concentration requirements must be taken in addition to the core requirements..... 39

ARTS	213	Art History: Ancient to Renaissance .....	3
	214	Art History: Renaissance to Modern.....	3
	217	Sculpture I .....	3
	221	Introduction to Art Therapy.....	3
	223*	Two-Dimensional Design.....	3
	224*	Three-Dimensional Design .....	3
	225	Drawing and Composition .....	3
	226	Drawing from the Model.....	3
	319	Painting I.....	3
	321	Ceramics I.....	3
	325 or 326	Seminars in Art History .....	3
	327	Advanced Studio Art III.....	3
	427	Research Seminar ** .....	3

\* ARTS 223 and 224 are prerequisite requirements for Art majors.

Psychology.....			12
	101	General Psychology .....	3
	206	Child and Adolescent Development.....	3
	345	Abnormal Psychology.....	3
		Psychology Elective .....	3
		(May not be PSYC 207 or PSYC 208)	

Six credits of art electives chosen from among the following:

ARTS	210	Watercolor I.....	3
	218	Sculpture II.....	3
	315	Graphic Design .....	3
	316	Digital Photography .....	3
	317	Computer Illustration .....	3
	320	Painting II.....	3
	322	Ceramics II.....	3

323	Printmaking I .....	3
324	Printmaking II .....	3
431-499	Special Topics .....	3

### Other Requirements

- Successful completion of comprehensive exam
- Portfolio presentation.

**Minor in Art – Studio: see page 125**

# Biochemistry

## Goals

- To provide a solid foundation in the field of biochemistry by integrating physics, chemistry, biology
- To facilitate communications of fundamental biochemical concepts both orally and in writing
- To develop the skills necessary for the design, analysis and interpretations of scientific investigations.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

### Concentration+

BIOL	120, 121	Biological Principles I, II .....	4, 4
	209	Cell Biology .....	3
	210	Introduction to Scientific Techniques .....	3
	304	Principles of Genetics .....	3
	325	Seminar: Scientific Literature .....	2
	326	Seminar: Inorganic, Organic, and Cultural Evolution .....	2
	407	Molecular Genetics.....	3
	408	Cell and Molecular Techniques .....	3
	415, 416	Modern Concepts in Biochemistry I, II .....	3, 3
	427, 428	Research/Internship.....	2, 2
CHEM	120, 121	Chemistry Principles I, II .....	4, 4
	207, 208	Organic Chemistry I, II.....	4, 4
	301, 302	Physical Chemistry I, II.....	4, 4
MATH	211, 212	Calculus I, II .....	4, 4
PHYS	201, 202	General Physics I, II .....	4, 4

## Other Requirements

- Successful completion of written and oral comprehensive exams
- Continuation in the major requires a GPA of 2.5 in all completed science courses
- At least nine credits of 300/400 level concentration coursework must be completed in the school to meet degree requirements.

+ Courses in the concentration are those with a BIOL or CHEM designator.

# Biology

## Goals

- To provide comprehensive instruction in biochemical, molecular, cellular, organismal, and evolutionary disciplines of biology
- To educate students to critically read and effectively communicate biological research
- To develop the skills required for working in a laboratory setting
- To prepare students to be certified to teach in biology-related areas and to potentially pursue an advanced degree in the life sciences.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

### Concentration+

BIOL	120, 121	Biological Principles I, II .....	4, 4
	207, 208	Anatomy and Physiology I, II.....	4, 4
	209	Cell Biology .....	3
	210	Introduction to Scientific Techniques .....	3
	304	Principles of Genetics .....	3
	325	Seminar: Scientific Literature .....	2
	326	Seminar: Inorganic, Organic, and Cultural Evolution .....	2
	407	Molecular Genetics.....	3
	427, 428	Research/Internship.....	2, 2
CHEM	120, 121	Chemistry Principles I, II .....	4, 4
	207, 208	Organic Chemistry I, II.....	4, 4
MATH	211	Calculus I.....	4
PHYS	201, 202	General Physics I, II .....	4, 4

### Electives

Two courses required—choose one course from Group I and one course from Group II.....3, 3

#### Group I

BIOL	330	General Immunology.....	3
BIOL	411	Microtechniques .....	4
	415, 416	Modern Concepts in Biochemistry I, II .....	3, 3

#### Group II

BIOL	312	Cell-Cell Interaction .....	3
	331	Botany, the Biosphere, and Ecosystems .....	3
	408	Cell and Molecular Techniques .....	3

**Natural Science Minor – see page 130.**

### Other Requirements

- Successful completion of written and oral comprehensive exams

- Continuation in the major requires a GPA of 2.5 in all completed science courses
- At least 9 credits of 300/400 level concentration coursework must be completed within the school.

**Secondary Certification (Grades 7-12)**

For teacher certification requirements in Biology, see School of Education.

*+Courses in the concentration are those with a BIOL designator.*

# Biology/Medical Technology Science Program

## Goals

- To provide a comprehensive instruction in biochemical, molecular, cellular, organismal, and evolutionary disciplines of biology
- To educate students to critically read and effectively communicate biological and clinical research
- To develop the skills required for working in a laboratory setting
- To prepare students for certification and a career in the clinical laboratory sciences.

## The Program

In order to prepare well-rounded professionals, the Medical Technology program combines a foundation in the liberal arts and basic sciences with formal clinical laboratory training.

At Holy Family University, students complete the core courses mandated by the liberal arts curriculum. Basic science courses consistent with standards set by the accrediting agencies for programs in clinical laboratory science as well as specific offerings required by the University in the concentration area are also completed on campus.

Training in Medical Technology/Clinical Laboratory science is undertaken during the Senior year in the facilities of an accredited hospital program. At the present time, Holy Family University enjoys an affiliation agreement with St. Christopher's Hospital. One criterion for admission to the clinical year is acceptable academic performance. Applicants must maintain a cumulative average of 2.5 as well as a grade of at least C+ in each science prerequisite. Evaluation of candidates, however, is not based solely on academic achievement, but also includes consideration of relevant recommendations and personal interviews. Admission to the clinical portion of the program is competitive; the clinical laboratory science staff reserves the right to select those applicants who seem best qualified to complete the program. During their clinical training, students are expected to comply with requirements imposed by the hospital affiliate.

Upon fulfillment of university and clinical requirements, students are awarded a Bachelor of Science degree in Biology. Students who complete the clinical internship are also eligible to take various certification examinations that are recognized by the profession.

## Challenge Program Designed for Medical Laboratory Technicians

An advanced placement program is available for those applicants who possess an associate degree in medical laboratory technology (M.L.T.) and a recognized certification in this area. Each student's status will be evaluated individually, and a suitable program of challenge examinations and/or accelerated rotations in Medical

Technology will be designed to address the background of the applicant as well as the requirements of the clinical affiliate and the University. Credit earned in this way and acceptable transfer credits may be applied toward completion of the Bachelor of Science degree at Holy Family University.

### Requirements

Core Curriculum: BS Requirements (credits)..... 45

#### Concentration

BIOL	120, 121	Biological Principles I, II .....	4, 4
	206	Microbiology .....	4
	207, 208	Anatomy and Physiology I, II.....	4, 4
	209	Cell Biology.....	3
	210	Introduction to Scientific Techniques .....	3
	330	General Immunology.....	3
CHEM	120, 121	Chemistry Principles I, II .....	4, 4
	207, 208	Organic Chemistry I, II.....	4, 4
	415, 416	Modern Concepts in Biochemistry I, II .....	3, 3
MATH	130	Elementary Statistics .....	3
	211	Calculus I.....	4
MEDT	413*	Clinical Hematology/Coagulation.....	6
	414*	Clinical Immunohematology .....	4
	416*	Clinical Chemistry.....	8
	417*	Clinical Microbiology.....	8
	418*	Clinical Immunology/Serology.....	3
PHIL	420**	Clinical Seminar .....	3
	205	Bioethics .....	3

#### Recommended

BIOL	304	Principles of Genetics .....	3
CHEM	203	Analytical Chemistry.....	4

#### Other Requirements

- Successful completion of written and oral comprehensive exam.

\*Courses/experiences completed at the accredited clinical affiliate site.

# Communications

## Goals

- To provide students with communication skills and a knowledge base for entry-level positions in the field of Communications or for graduate study
- To provide students with a foundation in the use of technologies
- To cultivate students' critical thinking skills through the Communications curriculum
- To encourage students to respect diversity and appreciate ideas originating in the world's different cultural traditions
- To provide an environment of ethical behavior and to inspire students to build community and live spiritually meaningful lives.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

### Major:

Concentration Requirements (credits)..... 21

Communication Track Requirements..... 27

Free electives..... 27

## Concentration

All common concentration requirements must be taken in addition to core requirements.

COMM 110	Introduction to Mass Media.....	3
218	Desktop Publishing .....	3
220	Communications and Culture .....	3
226	Writing for the Media .....	3
256	Law and Ethics in Media .....	3
425	Senior Seminar .....	3
450	Cooperative Education .....	3

## Track Option Requirements (27 credits)

### *Journalism Track*

COMM 230	Journalism I .....	3
233	Introduction to Broadcasting and Electronic Media .....	3
310	Journalism II: News and Feature Writing.....	3
311	Magazine Writing.....	3
314	Editing.....	3
415	Photojournalism .....	3

*Nine credits of electives in the following distribution:*

COMM or ENGL Elective  
(ENGL 309 or ENGL 410 recommended) ..... 3

Communications electives ..... 6

**Track Option Requirements (27 credits)**

*Public Relations Track*

ECON	103	Intro to Economics .....	3
COMM	235	Public Relations .....	3
	312	Principles of Marketing .....	3
	320	Video I.....	3
	335	Public Relations II.....	3
	405	Principles of Advertising.....	3

*Nine credits of electives in the following distribution:*

COMM or ECON or MNMK elective (MNMK 406 recommended) .....	3
COMM or THEA elective .....	3
COMM elective .....	3

**Track Option Requirements (27 credits)**

*Media Arts Track*

COMM	223	Two Dimensional Design .....	3
	233	Broadcasting and Electronic Media.....	3
	317	Computer Illustration .....	3
	320	Video I.....	3
	321	Digital Photography .....	3
	421	Video II .....	3

*Nine credits of electives in the following distribution:*

COMM or ARTS elective .....	3
COMM elective .....	3
COMM or ENGL elective (ENGL 235 recommended).....	3

**Other Requirements**

- Successful completion of comprehensive exam
- 2.5 (C+) average in all completed Communications courses.

**Minor in Communications: see page 126**

# Criminal Justice

## Goals

- Develop intellectual curiosity regarding issues in crime and justice
- Identify and describe the structure and functions of the various components of the Criminal Justice system
- Identify and evaluate the various theoretical perspectives that have evolved to explain crime and deviance
- Identify and apply the basic elements of social science and Criminal Justice research.
- Exhibit an ability to synthesize active learning in the classroom and engagement in the community through a successful Criminal Justice field experience
- Develop academic and professional skills that will enable the student to succeed professionally in some area of Criminal Justice practice upon graduation.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

## Concentration

CRJU	101	Introduction to the Criminal Justice System .....	3
	200	Nature of Crime and Delinquency .....	3
	210	Law Enforcement .....	3
	300	Corrections .....	3
	317	Criminal Law .....	3
POLS	316	Constitutional Law .....	3
		<b>or</b>	
CRJU	318	The Court System and Court Procedures.....	3
	423	Advanced Research Methods for Criminal Justice .....	3
	350, 351	Internship (2-4, 2-4) (minimum 4 credits total required) .....	4-8
	403	Probation and Parole.....	3
SOCO	101	Introductory Sociology .....	3
	203	Social Theory.....	3
	208	Social Deviance.....	3
	311	Statistics for Social and Behavioral Sciences.....	3
	323	Quantitative Research Methods .....	3
SOCO	330	Junior Seminar in the Social Sciences.....	3
		<b>or</b>	
SOCO	430	Senior Seminar in the Social Sciences .....	3
PSYC	101	General Psychology .....	3

## Electives in CRJU (choose one of the following)

CRJU	202	Comparative Criminal Justice Systems.....	3
	212	Police and Community Relations .....	3
	217	Organized and Organizational Crime .....	3
	219	Victimology .....	3
	222	Women and the Criminal Justice System .....	3

308	Juveniles and the Law .....	3
310	Introduction to Criminal Investigation.....	3
405	Introduction to Criminalistics .....	3

**Other Requirements**

- Successful completion of comprehensive exam.

**Minor in Criminal Justice: see page 127**

**Minor in Pre-law: see page 131**

# English

## Goals

- To provide the student with two options of concentration: Literature or English-Secundary Education
- To attain the objectives of correct and effective expression in writing and speaking, meaningful literary comprehension, and understanding of the function of language in written and oral communications
- To develop critical ability to recognize cultural implications and interrelationships
- To further the student's career goals and to expand his or her professional options.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

Courses taken as part of the core:

ENGL	101, 102	Writing I, II.....	3, 3
		<b>or</b>	
	103, 104	Honors Writing I, II.....	3, 3
	115	Public Speaking .....	3

## Concentration

All concentration requirements are taken in addition to core requirements.

## Requirements

ENGL	201, 202	World Literature I, II.....	3, 3
	203, 204	American Literature I, II .....	3, 3
	205, 206	British Literature I, II.....	3, 3
	309	Creative Writing.....	3
	327	Junior Seminar: Literature .....	3
	400	The English Language .....	3
	425	Senior Seminar: Literature.....	3
Elective courses (credits) .....			15

Fifteen credits to be distributed in the following way:

English Elective #1: Choose from among 200-level literature courses

English Elective #2 and #3: Choose from among 300-level literature courses  
[English 302, Shakespeare, strongly recommended]

English Elective #4 and #5: Choose from among 400-level literature and writing courses.

## Optional

ENGL	350	Cooperative Education Option I.....	2-4
	351	Cooperative Education Option II.....	2-4

**Other requirements**

- Successful completion of comprehensive exam.

**Secondary Certification (Grades 7-12)**

For teacher certification requirements in English, see School of Education.

**Minor in English Literature: see page 127**

**Minor in American Studies: see page 124**

# History

## Goals

- To further the analytical examination of evidence based on a sound historical methodology
- To develop frames of reference that will enable the student to view himself or herself in relation to mankind, and his or her historical knowledge in relation to other disciplines
- To enrich and expand the student personally and civically through knowledge of the Western heritage upon which democratic society is built
- To emphasize the continuity of society in all its forms and to be aware of the process and the necessity of change
- To prepare the concentrator for: graduate study; law school; a teaching career in history; or public service-related professions, such as civil service, journalism, legal research, and insurance.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

## Concentration

All concentration requirements must be taken in addition to core requirements.

HIST	108	Global History to 500 C.E. ....	3
	109	Global History 500-1700 .....	3
	203	American History to 1820 .....	3
	204	American History, 1820-1920 .....	3
	205	U.S. History Since 1920.....	3
	208	Global History, 1700-present .....	3
	351	History Seminar I.....	3
	451	History Seminar II .....	3
		Four history electives, including at least one course in non-Western history.....	12
POLS	103	Introductory Politics .....	3

## Recommended

GEOG	205	Principles of Geography .....	3
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## Other Requirements

- Successful completion of comprehensive exam.

## Secondary Certification (Grades 7-12)

For teacher certification requirements in History/Social Studies, see School of Education.

**Minor in History: see page 128**

**Minor in American Studies: see page 124**

# Interdisciplinary Humanities

## Goals

- To provide a flexible interdisciplinary program that offers direction in the liberal arts for students who wish to pursue a curriculum based in more than one discipline
- To counteract a parochial, departmentalized view of intellectual inquiry
- To integrate the various disciplines and to affirm the value of a broad-based Education that cultivates habits of mind and breadth of outlook, and demands a tolerance for diverse views
- To produce within the student a capacity to adapt without surrendering essential standards
- To evoke meaningful, lifelong learning in terms of human fulfillment.

## Requirements

Core Curriculum: BA Requirements (credits)..... 45

In addition to the core requirements, at least one course from each Humanities discipline: Fine Arts, History, Literature (English or Foreign), Philosophy, Religious Studies; four additional courses in the student’s chosen area of study; five additional Humanities courses; seminars in both Junior and Senior year, at least one of which is in the area of study.

## Areas of Study

- American Studies: courses from American literature and American History
- Studio Art/Art History: any studio courses plus ARTS 213 and ARTS 214
- Catholic Studies: courses in Religious Studies that focus on Catholic teaching
- European Studies: courses from European History, Art Appreciation, Music Appreciation, and Opera
- Ethical Studies: combination of courses in Philosophy and Religious Studies.
- Fine Arts: combination of courses in Music, Theater (Film, Acting, Visual Arts)
- History: combination of History offerings
- Literature: combination of courses in English literature
- Philosophy: any Philosophy offerings beyond core requirements
- Religious Studies: any combination of Religious Studies offerings beyond core requirements.

## Concentration

One course from each of the following areas:

Art.....	3
History .....	3
Literature.....	3

Philosophy.....	3
Religious Studies.....	3
Four additional courses in area of study.....	12
Five additional courses in the Humanities .....	15
Seminars (including at least one in area study).....	6

Refer to specific disciplines in this catalog for course offerings appropriate to this major.

**Other Requirements**

- Successful completion of comprehensive exam.

# Mathematics

## Goals

- To provide a comprehensive instruction in foundational, theoretical and applied mathematics
- To educate students in application of appropriate strategies and technology in problem solving
- To educate students to effectively communicate and interpret mathematics
- To prepare students to meet career goals, such as, employment, pre professional and in-service education at the middle and secondary levels, or graduate study.

## Requirements

Core Curriculum: BA Requirements (credits)..... 45

## Concentration

MATH	211, 212, 213	Calculus I, II, III.....	4, 4, 4
	220	Linear Algebra with Applications.....	4
	221	Ordinary Differential Equations.....	4
	250	Discrete Mathematics.....	3
	308	Probability.....	3
	316	Modern Algebra I.....	3
	403	Advanced Calculus.....	3
	430	Senior Seminar.....	3

Plus five courses from the 300 or 400 level MATH offerings.

## Other Required Courses

CMIS	107	Structured Programming.....	3
PHIL	202	Logic.....	3
PHYS	201, 201L, 202, 202L	General Physics I, II.....	4, 4

## Other Requirements

- Successful completion of comprehensive exam
- Continuation in the major requires a GPA of 2.5 in all completed Mathematics courses
- At least nine credits in upper-division courses (numbered 220 or higher) must be completed in the division to meet degree requirements.

**Minor in Actuarial Science: see page 123**

**Minor in Mathematics: see page 128**

**Minor in Middle School Mathematics: see page 129**

# Psychobiology

## Goals

- To provide concentrators with a firm base of knowledge in both disciplines of Psychology and Biology
- To prepare students for positions in research in the behavioral, pharmacological, paramedical, and medical sciences.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

### Concentration\* (see note)

BIOL	120, 121	Biological Principles I, II .....	4, 4
	207, 208	Anatomy and Physiology I, II.....	4, 4
	209	Cell Biology.....	3
	210	Introduction to Scientific Techniques or	
	312	Cell-Cell Interaction .....	3
	304	Principles of Genetics .....	3
	326	Seminar: Inorganic, Organic, and Cultural Evolution.....	2
CHEM	120, 121	Chemistry Principles I, II .....	4, 4
PSYC	101	General Psychology .....	3
	206	Child and Adolescent Development.....	3
	305	Physiological Psychology .....	3
	311	Statistics for Social and Behavioral Sciences.....	3
	323	Quantitative Research Methods .....	3
	333	Learning .....	3
	425	Test and Measurement.....	3
	431	Seminar: Contemporary Issues in Psychology .....	3
	433	Advanced Research in Psychology.....	3
	Electives in Natural Science or Psychology .....		

## Other Requirements

Successful completion of a comprehensive exam in both Psychology and Biology. Continuation in the major requires a GPA of 2.5 in all completed science courses. At least nine credits in 200/300-level science offerings must be completed in the school to meet degree requirements.

# Psychology

## Goals

- To provide students with a broad-based foundation in the field of Psychology
- To introduce students to the scientific method and the role of empirical research in Psychology
- To highlight the important role psychology can play in addressing individual, organizational, and social problems
- To endow students with the professional and academic skills needed for graduate study or for entry-level positions in the mental health field
- To encourage students to make paramount the protection of human dignity in their interactions with others.

## Requirements

Core curriculum: BA requirements (credits)..... 45

## Courses required of all students – General Track

PSYC	101*	General Psychology .....	3
	102	Psychology as a Natural Science .....	3
	206	Child and Adolescent Development.....	3
	211	Scientific Writing for the Social and Behavioral Sciences.....	3
	305	Physiological Psychology .....	3
	311	Statistics for the Social and Behavioral Sciences.....	3
	318	Globalization .....	3
	323	Quantitative Research Methods .....	3
	324	Qualitative Research Methods.....	3
	331	Sensation & Perception .....	3
		<b>or</b>	
	332	Cognitive Processes .....	3
	333	Learning .....	3
	343	Social Psychology.....	3
	345	Abnormal Psychology.....	3
	346	Theories of Personality .....	3
	352	Junior Seminar in Psychology.....	3
	431	Seminar: Contemporary Issues in Psychology .....	3

*\*Must be taken by psychology concentrators as a prerequisite for all other PSYC courses*

PSYC electives – 2 courses .....

## Also required

SOCO	101	Introductory Sociology .....	3
PHIL	307	Social Ethics .....	3

## Other requirements

Successful completion of comprehensive exam.

**Courses required of all students – Mental Health Services Track**

PSYC	101*	General Psychology .....	3
	102	Psychology as a Natural Science .....	3
	206	Child and Adolescent Development.....	3
	209	Psychology of the Exceptional Child.....	3
	211	Scientific Writing for the Social & Behavioral Sciences.....	3
	220	Addictions .....	3
	305	Physiological Psychology .....	3
	311	Statistics for the Social and Behavioral Sciences .....	3
	318	Globalization .....	3
	323	Quantitative Research Methods .....	3
	324	Qualitative Research Methods.....	3
	331	Sensation & Perception .....	3
		<b>or</b>	
	332	Cognitive Processes .....	3
	333	Learning .....	3
	343	Social Psychology.....	3
	344	Group Dynamics .....	3
	345	Abnormal Psychology.....	3
	346	Theories of Personality .....	3
	350	Internship in Psychology .....	3
	352	Junior Seminar in Psychology.....	3
	405	Introduction to Counseling .....	3
	431	Seminar: Contemporary Issues in Psychology .....	3

*\*Must be taken by psychology concentrators as a prerequisite for all other PSYC courses*

**Also required**

SOCO	101	Introductory Sociology .....	3
	202	Introduction to the Social Welfare System .....	3
PHIL	307	Social Ethics .....	3

**Other requirements**

Successful completion of comprehensive exam.

**Courses required of all students – Research Track**

PSYC	101*	General Psychology .....	3
	102	Psychology as a Natural Science .....	3
	206	Child and Adolescent Development.....	3
	211	Scientific Writing for the Social and Behavioral Sciences .....	3
	305	Physiological Psychology .....	3
	311	Statistics for the Social and Behavioral Sciences .....	3
	318	Globalization .....	3
	323	Quantitative Research Methods .....	3
	324	Qualitative Research Methods.....	3

331	Sensation & Perception .....	3
	<b>or</b>	
332	Cognitive Processes .....	3
333	Learning .....	3
343	Social Psychology.....	3
345	Abnormal Psychology.....	3
346	Theories of Personality .....	3
352	Junior Seminar in Psychology.....	3
425	Tests and Measurements.....	3
431	Seminar: Contemporary Issues in Psychology .....	3
433	Advanced Research for the Social and Behavioral Sciences .....	3

*\*Must be taken by psychology concentrators as a prerequisite for all other PSYC courses*

PSYC	Elective .....	3
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**Also required**

SOCO	101	Introductory Sociology .....	3
PHIL	307	Social Ethics .....	3

**Other requirements**

Successful completion of comprehensive exam.

**Minor in Psychology: see page 132**

# Psychology for Business

## Goals

- To present a sound knowledge base in psychology and business that prepares the student for a career or advanced graduate studies in either discipline
- To provide Cooperative Education placements to explore various career possibilities in personnel, employee assistance, employee management relations, etc., and to integrate knowledge with practice
- To develop an understanding of social responsibility that business and industry have toward owners, employees, consumers, and society
- To help students apply their knowledge in assessing current events and in developing a sense of systematic planning for the future
- To instill an ethical-moral orientation to examining social-economic issues and problems.

## Requirements\* (see note)

Core Curriculum: BA Requirements (credits) ..... 45

Each course in the following common business and concentration requirements must be completed with a minimum grade of C.

## Common Business Requirements

ACCT	205	Principles of Financial Accounting.....	3
	206	Principles of Managerial Accounting.....	3
BUSA	101	Mathematical Analysis for Economics and Business I.....	3
	102	Mathematical Analysis for Economics and Business II.....	3
CMIS	103	Computers Applications.....	3
ECON	201	Economic Theory-Macro Theory.....	3
	202	Economic Theory-Micro (Price) Theory.....	3
MNMK	305	Principles of Management.....	3
	312	Principles of Marketing.....	3

## Concentration

BUSA	435	Senior Seminar in Business Policy.....	3
MNMK	413	Quantitative Methods for Decision-Making.....	3
	439	Senior Seminar in Management and Marketing.....	3
PSYC	101	General Psychology.....	3
	203	Consumer Behavior.....	3
	215	Industrial and Organizational Psychology.....	3
	311	Statistics for Social and Behavioral Sciences.....	3
	323	Quantitative Research Methods.....	3
	343	Social Psychology.....	3
	344	Group Dynamics.....	3
	425	Tests and Measurements.....	3

431	Seminar: Contemporary Issues in Psychology .....	3
433	Advanced Research in Psychology .....	3
	PSYC elective .....	3

*Recommended*

PHIL	208	Business Ethics .....	3
	301	Ethics.....	3

Additional courses in CMIS, ECON, MATH, AND PSYC

**Other Requirements**

- Successful completion of a comprehensive exam in both Psychology and Business.

**\*NOTE: Pending curriculum changes may alter the required course sequence for students entering in Fall, 2010 or thereafter.**

# Religious Studies

## Goals

- To introduce students to the Catholic theological heritage and to its association with the liberal arts tradition
- To examine aspects of Christian faith and values in a spirit of thoughtful freedom and academic rigor
- To provide students opportunities to learn about dimensions of a Christian vision of life, including the values of moral judgment, justice, and peace
- To be sensitive to religious plurality and to diversity among students
- To provide preparation for students interested in careers in religious education and other church ministries.

## Requirements

Core Curriculum: BA Requirements (credits) ..... 45

### *Concentration\**

RELS	104	World Religions.....	3
	105	Introduction to the Four Gospels .....	3
	106	Introduction to the Hebrew Scriptures.....	3
	113	The Sacraments .....	3
	210	Jesus the Christ.....	3
	301	Christian Morality.....	3
	325-330	Junior Seminar .....	3
	425	Senior Seminar .....	3

Select three credits from the following requirements:

RELS	112	History of Christianity I.....	3
	212	History of Christianity II .....	3

Select six credits from the following Biblical requirements:

RELS	107	The Gospel According to Mark .....	3
	109	The Gospel According to Matthew.....	3
	110	The Gospel According to Luke .....	3
	203	The Gospel According to John.....	3
	205	Prophets of Israel .....	3
	207	Introduction to Saint Paul .....	3

Select three credits from the following Moral requirements:

RELS	310	Christian Marriage in the Modern World.....	3
	315	The Gospel of Peace and Justice.....	3
	405	Life and Death: Christian Decision-Making.....	3

Select 6 credits from the following Theology requirements:

RELS	206	Women and Religion.....	3
	213	History of the Catholic Church in the United States .....	3
	215	Religion in America.....	3

409	Christian Mysticism .....	3
410	Dante's Divine Comedy.....	3
431-499	Special Topics .....	3
<i>Recommended</i>		
PHIL 207	Philosophy of Religion .....	3

**Other Requirements**

- Successful completion of comprehensive exam.

**Minor in American Studies: see page 124**

**Minor in Religious Studies: see page 133**

# Sociology

## Goals

- To offer students a solid foundation in the discipline, with special emphasis on the “sociological perspective”
- To provide students with a thorough understanding of the various perspectives and research traditions reflected in sociological theory
- To introduce students to the basic elements of sociological research
- To allow students to synthesize active learning in the classroom and increase engagement in the community through successful “sociological practice”
- To develop in students the academic and professional skills that will enable them to succeed professionally in some area of sociological practice upon graduation.

## Requirements

Core curriculum: BA requirements (credits) ..... 45

### Courses required of all students – General Track

SOCO	101	Introductory Sociology .....	3
	201	Social Problems.....	3
	203	Social Theory.....	3
	208	Social Deviance.....	3
	211	Scientific Writing for the Social and Behavioral Sciences.....	3
	212	Race, Class and Gender .....	3
	311	Statistics for the Social and Behavioral Sciences .....	3
	318	Globalization .....	3
	323	Quantitative Research Methods .....	3
	324	Qualitative Research Methods.....	3
	330	Junior Seminar in Social Sciences .....	3
	343	Social Psychology.....	3
	350	Internship in Sociology.....	3
	430	Senior Seminar in Social Sciences .....	3
	433	Advanced Research for the Social and Behavioral Sciences.....	3
SOCO		Electives (2) .....	6

### Also required

PSYC	101	General Psychology .....	3
ECON/POLS/ANTH		Elective .....	3

### Other requirements

Successful completion of comprehensive exam.

**Courses required of all students – Public Health Services Track**

In addition to the goals of the general sociology track, an added goal of the Public Health Services Track is to develop academic and professional skills to work with people who are sick or have chronic health problems.

SOCO	101	Introductory Sociology .....	3
	201	Social Problems.....	3
	202	Introduction to the Social Welfare System .....	3
	203	Social Theory.....	3
	205	Principles of Interviewing.....	3
	208	Social Deviance.....	3
	211	Scientific Writing for the Social and Behavioral Sciences.....	3
	212	Race, Class and Gender .....	3
	310	Medical Sociology .....	3
	311	Statistics for the Social and Behavioral Sciences .....	3
	318	Globalization .....	3
	323	Quantitative Research Methods .....	3
	324	Qualitative Research Methods.....	3
	330	Junior Seminar in Social Sciences .....	3
	343	Social Psychology.....	3
	350	Internship in Sociology.....	3
	430	Senior Seminar in Social Sciences .....	3
Public Health Services Track Elective.....			3
(Choose from SOCO 206, 219, 305, 340, 341, 342, or PSYC 209)			

**Also required**

PSYC	101	General Psychology .....	3
PSYC	212	Psychology of Health & Illness .....	3
ECON/POLS/ANTH		elective .....	3

**Other requirements**

Successful completion of comprehensive exam.

**Courses required of all students – Child & Family Services Track**

In addition to the goals of the general sociology track, an added goal of the Child and Family Services Track is to develop academic and professional skills to work with children and families in a number of capacities.

SOCO	101	Introductory Sociology .....	3
	201	Social Problems.....	3
	202	Introduction to the Social Welfare System .....	3
	203	Social Theory.....	3
	205	Principles of Interviewing.....	3
	206	Marriage & the Family .....	3
	208	Social Deviance.....	3
	211	Scientific Writing for the Social and Behavioral Sciences.....	3
	212	Race, Class and Gender .....	3
	311	Statistics for the Social and Behavioral Sciences .....	3

318	Globalization .....	3
323	Quantitative Research Methods .....	3
324	Qualitative Research Methods.....	3
330	Junior Seminar in Social Sciences .....	3
341	Family Violence .....	3
343	Social Psychology.....	3
350	Internship in Sociology.....	3
430	Senior Seminar in Social Sciences .....	3
Child and Family Services Track Elective .....		3
(Choose from SOCO 219, 305, 340, 342; CRJU 308; or PSYC 209, 308)		

**Also required**

PSYC 101	General Psychology .....	3
ECON/POLS/ANTH	elective .....	3

**Other requirements**

Successful completion of comprehensive exam.

**\*NOTE: Curriculum changes may alter the required sequence of courses for students entering after Fall, 2009.**

**Minor in American Studies: see page 124**

**Minor in Sociology: see page 134**



## Minors

### Minor in Actuarial Science (6 courses/18-21 credits)

The declared minor in actuarial science is a multidisciplinary minor which focuses on the application of mathematics and statistics to the study of risk management. Formal coursework in completing Option I or Option II of the minor in actuarial science will help to prepare the student for the Casualty Actuarial Society and the Society of Actuaries (CAS/SOA) Joint Exams 1 and 2 and meet the Validation by Educational Experience (VEE) requirement for Economics. Option III of the minor in actuarial science will help to prepare the student for CAS/SOA Joint Exam 1 and meet VEE requirements for Economics. Minimum grade of C is required. Only 6 transfer credits will be accepted toward the minor.

#### Option 1 Actuarial Science with a Major in Mathematics (18 credits)

##### Required Courses:

ECON	201	Economic Theory – Macro Theory .....	3
	202	Economic Theory – Micro Theory (Prerequisite: ECON 201).....	3
ECON	303	Money and Banking (Monetary Theory) (Prerequisite: ECON 201).....	3
BUSA	311	Principles of Finance (Prerequisites: ECON 201, ECON 202, ACCT 206, BUSA 102*).....	3
ACCT	205	Principles of Financial Accounting.....	3
	206	Principles of Managerial Accounting (Prerequisite: ACCT 205) .....	3

\*MATH 212 replaces BUSA 102 as the prerequisite.

#### Option II Actuarial Science with a Major in Business (21 credits)

##### Required Courses: (15 credits)

MATH	212	Calculus II (Prerequisite: MATH 211 or BUSA 101& 102*).....	4
	213	Calculus III (Prerequisite: MATH 212) .....	4
	220	Linear Algebra (Prerequisite: MATH 211) .....	4
	308	Probability (Prerequisite: MATH 212) .....	3

##### Two Additional Courses: (6 credits)

ECON	303	Money and Banking *	
		<b>or</b>	
MATH	401, 405 or 410 .....		3
BUSA	311	Principles of Finance *	
		<b>or</b>	
MATH	401, 405 or 410 .....		3

*\*If these are required in the major then the math courses are selected. MATH 401 is always the first alternative for ECON 303 or BUSA 311.*

**Option III Actuarial Science for the Non-Business and Non-Math Majors (19 - 21 credits)**

**Required Courses:**

ECON	201	Economic Theory Macro Theory .....	3
	202	Economic Theory Micro Theory (Prerequisite: ECON 201) .....	3
MATH	211	Calculus I** .....	4
	212	Calculus II*** (Prerequisite: MATH 211) .....	4
	213	Calculus III*** (Prerequisite: MATH 212) .....	4
	308	Probability (Prerequisite: MATH 212) .....	3

*\*\*Satisfies the core quantification requirement*

**\*\*\*** If any of these courses are required in a particular program, they can be replaced by any courses from the following list:

CMIS	103	Computer Applications .....	3
	107	Structured Programming .....	3
ECON	303	Money and Banking (Monetary Theory) (Prerequisite: ECON 201) .....	3
ACCT	205	Principles of Financial Accounting .....	3
MATH	401	Statistics (Prerequisite: MATH 308) .....	3

**Minor in American Studies (6 courses/18 credits)**

The minor in American Studies allows students to explore the social, historical, material, and aesthetic aspects of American culture from an interdisciplinary perspective integrating the humanities and the social sciences. Students electing the American Studies minor will designate a focus area by topic, by time period, or by discipline, and will choose courses to address this area in consultation with an advisor. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses to be selected as follows:

- Required course to be taken in the first year of the minor, if possible (one course/ three credits):  
ENGL 263/HIST 263 Honors American Studies\* .....

**Specialization (5 courses/15 credits):**

Students may choose between two tracks, the Humanities track and the Social Sciences track. Students opting for the Humanities track will select three courses from the Humanities and two from the Social Sciences, with no more than two courses chosen from any one academic discipline. Students opting for the social sciences track will select three courses from the Social Sciences and two from the Humanities, with no more than two courses chosen from any one academic discipline.

*Humanities Courses:*

ENGL	203	American Literature I.....	3
	204	American Literature II .....	3
HIST	203	American History to 1820.....	3
	204	American History 1820 to 1920 .....	3
	205	American History since 1920 .....	3
	304	Jeffersonian and Jacksonian Democracy .....	3
	312	American Immigration History.....	3
	313	Women in America.....	3
	315	History of Pennsylvania .....	3
	316	American Foreign Policy.....	3
	317	Revolutionary America .....	3
	318	Atlantic Worlds .....	3
PHIL	307	Social Ethics .....	3
RELS	213	History Catholic Church US.....	3
	215	Religion in America.....	3

*Social Sciences Courses:*

ECON	407	American Economic History** .....	3
POLS	204	American National Government .....	3
	206	The Presidency .....	3
	308	American Political Parties.....	3
	316	Constitutional Law.....	3
	335	Issues Contemporary American Foreign Policy .....	3
	SOCO	206	Marriage & Family .....
	305	Aging in America .....	3

\*Permission required of the School of Arts and Sciences.

\*\*This has a prerequisite of ECON 103 or ECON 201.

All prerequisites must be met for the course to be taken in the minor.

### Minor in Art-Studio (6 courses/18 credits)

The minor in studio-art is designed to encourage an in depth investigation of one art making process, rather than a sampling of many. This minor offers students the opportunity to pursue a course of study in one of the following areas: painting, sculpture, computer graphics or ceramics. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six classes to be selected as follows:

#### Required Courses (9 credits):

ARTS	223	Two Dimensional Design .....	3
	224	Three Dimensional Design.....	3
	225	Drawing and Composition .....	3
		<b>or</b>	
	226	Drawing from the Model.....	3

**Specialization (9 credits):**

Painting: ARTS 319, ARTS 320, ARTS 327 .....	9
Sculpture: ARTS 217, ARTS 218, ARTS 327.....	9
Ceramics: ARTS 321, ARTS 322, ARTS 327.....	9
Computer Graphics: ARTS 315, ARTS 317, COMM 218.....	9

**Minor in Chemistry (6 courses/22-23 credits)**

Grades in a chemistry course of less than C will not count toward the minor. Because all chemistry courses either require a laboratory or are four credits courses, this minor requires a commitment of 22 credit hours. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses (22-23 credits).

**Requirements:**

GSCI	106	Chemistry and the Environment .....	3
CHEM	120/120L	Chemistry Principles I.....	4
	121/121L	Chemistry Principles II.....	4

Three courses from the any of the following:\*

CHEM	207/207L	Organic Chemistry I .....	4
	208/208L	Organic Chemistry II .....	4
	301/301L	Physical Chemistry I .....	4
	302/302L	Physical Chemistry II .....	4
	307	Advanced Inorganic Chemistry .....	4
	203/203L	Analytical Chemistry.....	4
	401/401L	Instrumental Analysis .....	4
	415	Modern Concepts in Biochemistry I.....	3
	416	Modern Concepts in Biochemistry II .....	3

\*Some of these courses have prerequisites. Please consult course descriptions.

**Minor in Communications (6 courses/18 credits)**

The Communications minor offers students an introduction to Communications, allows study in specific areas of interest, and offers a grounding in developing competencies for Communication professionals. Minimum grade of C is required. Only six transfer credits will be accepted toward for the minor.

The minor consists of six courses to be selected as follows:

**Required Courses (6 credits):**

COMM	110	Intro to Mass Media.....	3
	220	Communication and Culture.....	3

**Four elective courses (12 credits):**

Selected from any of the Communication program tracks: Journalism, Public Relations, or Media Arts.

## Minor in Criminal Justice (6 courses/18 credits)

The minor in Criminal Justice provides the student with an introduction to the fundamentals of law enforcement, the courts, and corrections and an opportunity to specialize in a particular area. It prepares students for graduate study in Criminal Justice or criminology or a career in a Criminal Justice-related field. Minimum grade of C is required. Only six transfer credits will accepted toward the minor.

The minor consists of six courses to be selected as follows:

### Required Courses (9 credits):

CRJU	101	Introduction to the Criminal Justice System .....	3
	200	The Nature of Crime and Delinquency .....	3
	427	Seminar: Issues in the Criminal Justice System* .....	3

### Specialization (9 credits) from one of the following areas:

#### *Law Enforcement:*

CRJU	210	Introduction to Law Enforcement.....	3
	212	Police and Community Relations .....	3
	310	Criminal Investigation** .....	3

**or**

#### *Criminal Law and the Courts:*

CRJU	308	Juveniles and the Law .....	3
	317	Criminal Law .....	3
	318	Court System and Court Procedures .....	3

**or**

#### *Corrections:*

CRJU	300	Corrections .....	3
	308	Juveniles and the Law .....	3
	403	Probation and Parole.....	3

*\*This seminar is intended as a capstone course and, accordingly, it is expected that the student pursuing a Criminal Justice minor will have completed 15 credit hours in the discipline prior to registering for it.*

*\*\*All prerequisites must be met for the course to be taken in the minor.*

## Minor in Literature (6 courses/18 credits)

Literature enhances any program. Reading the masters of literature provides a cultural perspective that distinguishes an educated person; a close study of Literature improves critical thinking and an appreciation for good writing, both of which provide a strong foundation for any career. The Literature minor combines both survey and specialty courses. Shakespeare, Romantic and Victorian authors, mythology, poetry, and the literary genres are available for elective. Creative writing or theater courses are also available. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses to be selected as follows:

### Required Courses (12 credits):

ENGL	201 or 202	World Literature I or II .....	3
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203 or 204	American Literature I or II.....	3
205 or 206	British Literature I or II .....	3
327	Junior Seminar: Literature .....	3
	<b>or</b>	
425	Senior Seminar: Literature (on recommendation of English faculty) .....	3

**Electives: Two courses (6 credits) selected from the following:**

One 300 level course.....	3
One 400 level course <b>or</b> one Theater course.....	3

All prerequisites must be met for the course to be taken in the minor.

**Minor in History (6 courses/18 credits)**

The History minor offers students an introduction to World and American History, allows them to study in depth an area of interest, and provides training in historical methodology. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six classes to be selected as follows:

**Required Courses (12 credits):**

Two courses in Western European History:

HIST	108	Global History to 500 C.E.....	3
	109	Global History 500-1700 .....	3

Two courses in American History, chosen from among

HIST	203	American History to 1800.....	3
	204	American History 1820 to 1920.....	3
	205	American History Since 1920.....	3

**Two additional courses (6 credits):**

From 300 or 400 level courses, one of which must be a history seminar.

**Minor in Mathematics (6 courses/21-23 credits)**

The minor in Mathematics allows the students to deepen their Mathematical background while pursuing their major. This minor can be beneficial to students concentrating in business or science who wish a broader knowledge of the power of Mathematics within and outside their field. Any student who wishes to explore the beauty of mathematics but does not want to major in it can also pursue the minor. Only six transfer credits will be accepted toward the minor.

**Required Courses: (4 courses/15 credits)**

MATH	211	Calculus I.....	4
	212	Calculus II .....	4
	220	Linear Algebra.....	4
	250	Discrete Math.....	3

**Two additional math courses: (6-8 credits)**

200 level or higher, one of which must be 300 level or higher.

Some suggested tracks for specialization are given below:

Applied Math	MATH 221	Ordinary Differential Equations
	MATH 405	Numerical Analysis
Statistics	MATH 308	Probability
	MATH 401	Statistics
Pure Math	MATH 305	Theory of Numbers
	MATH 316	Modern Algebra I
History of Math	MATH 303	Modern Geometry
	<b>or</b>	
	MATH 305	Theory of Numbers
	MATH 327	Junior Seminar History of Mathematics

**Minor in Middle School Mathematics (6-7 courses/19-22 credits)**

The Minor in Middle School Mathematics is designed to provide additional preparation in mathematics, mathematics education, and technology beyond the required mathematics in the Middle School curriculum. This minor provides the necessary content needed for education majors to become qualified and effective middle school mathematics teachers or mathematics lead teachers; however, the satisfactory completion of the minor does not guarantee the student that s/he will pass the Middle School Math Praxis exam. Any student sitting for the Praxis is encouraged to utilize available preparation materials. Since this minor prepares a student for a certification in middle school mathematics, it is restricted to education majors. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

**Required Courses:**

Core Math Course	MATH 121 or 150 or 211.....	3-4
MATH	122 Mathematics for Education Majors .....	3
	130 Elementary Statistics .....	3
	211 Calculus I (if not taken as the core math) .....	4
	250 Discrete Math (Prerequisite: MATH 211) .....	3
	327 History of Mathematics (Prerequisite: MATH 211) .....	3

**Elective Courses (3 credits) (Choose one of the following):**

MATH	303 Modern Geometry (Prerequisite: MATH 150) .....	3
	305 Number Theory (Prerequisite: MATH 150, MATH 250).....	3

It is recommended that the student declare this minor in either their Freshman or Sophomore year.

## Minor in Natural Sciences (6 Courses, 22 Credits)

The Minor in the Natural Sciences prepares the Holy Family student to think globally and will give the student the opportunity to experience and to explore the breadth of the Natural Sciences. Essential Biological and Chemical Principles of Nature will be presented as an interplay between Chemical and Physical Laws and their impact upon both living and non-living systems. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

### Required courses:

BIOL	120, 120L	Biological Principles I (No prerequisites) .....	4
	121, 121L	Biological Principles II (Prerequisite 120, 120L) .....	4
CHEM	120, 120L	Chemistry Principles I (Appropriate preparatory course or MATH 150) .....	4
	121, 121L	Chemistry Principles II (Prerequisites: CHEM 120, 120L) .....	4
GSCI	108	The Environment of the Planet Earth (No prerequisites) .....	3
	110	The Science of Physics (No prerequisites) .....	3

It is recommended that the student declare this minor in either their Freshman or Sophomore year and complete the coursework in the following sequential order:

Year 1: BIOL 120,120L (Fall) and BIOL 121, 121L (Spring)

Year 2: CHEM 120, 120L (Fall) and CHEM 121, 121L (Spring)

Year 3: GSCI 108 (Fall) and GSCI 110 (Spring)

## Minor in Philosophy (6 courses/18 credits)

The minor in Philosophy provides students with the opportunity to enhance their education with a firm grounding in the practice of analysis and critical thinking characterized by the careful exploration of philosophical concepts. With an emphasis on ethical theory and practice supplemented by offerings in basic areas of philosophical concepts, the Philosophy Minor is an enriching accompaniment to any major. The full time philosophy faculty will tailor a variety of alternative minors to suit individual students. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

Suggested Ethical Minor Model: six courses to be selected from the following:

Ethical Theory (3 credits)

PHIL	301	Ethics.....	3
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Fundamental Theory (9 credits)

PHIL	101	Introduction to Philosophy.....	3
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**or**

	103	Honors Introduction to Philosophy.....	3
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201	Philosophy of Human Nature .....	3
202	Logic .....	3
203	History of Philosophy I .....	3
204	History of Philosophy II.....	3
207	Philosophy of Religion .....	3
302	Theory of Knowledge.....	3
303	Philosophy of Art .....	3
305	World Views.....	3
<b>Applied Ethics (3 credits)</b>		
PHIL	205	Bioethics..... 3
	208	Business Ethics..... 3
	256	Law and Media Ethics..... 3
	307	Social Ethics..... 3
<b>Elective (3 credits)</b>		
PHIL	325	Junior Seminar..... 3
	425	Senior Seminar..... 3
	426	Independent Study..... 3
	431-499	Special Topics..... 3

### **Minor in Political Science (6 courses/18 credits)**

The minor in Political Science allows students to augment majors in Business Administration, Criminal Justice, Economics, Foreign Languages, History, Psychology, Sociology, or other social science fields. It prepares students to continue graduate study, pursue careers in government service, law or politics. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses to be selected as follows:

#### **Required Courses (9 credits):**

POLS	103	Introductory Politics .....	3
	204	American National Government .....	3
	321	Comparative Political Systems	
		<b>or</b>	
	210	Introduction to International Relations.....	3

#### **Three elective courses in Political Science (9 credits)**

### **Minor in Pre-Law (6 courses/18 credits)**

The minor in Pre-Law allows students to explore in an interdisciplinary manner the philosophical, political, criminal, and psychological aspects of American society toward preparation for legal studies after graduation and a career in law. Courses should be selected in consultation with the Pre-Law Advisor. Minimum grade of C is required. Only six transfer credits will be accepted for the minor.

The minor in Pre-Law consists of six courses (18 credits) to be selected as follows:

**Required Courses (9 credits):**

PHIL	202	Logic.....	3
POLS	316	Constitutional Law.....	3
CRJU	317	Criminal Law .....	3

**Elective Courses (9 credits):**

CRJU	308	Juveniles and the Law .....	3
	318	The Court System and Court Procedure .....	3
PHIL	265	Law and Ethics in Media .....	3
	301	Ethics.....	3
	307	Social Ethics .....	3
	433	Philosophy of Justice.....	3
POLS	204	American National Government .....	3
PSYC	341	Family Violence .....	3
	343	Abnormal Psychology.....	3

Any prerequisites must be met prior to taking a minor course.

**Minor in Psychology (6 courses/18 credits)**

The minor in Psychology gives the student an introduction to the content and methodology of the field. Courses are required from both the social and biological areas of the discipline. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of 6 courses to be selected as follows:

**Requirements: (6 credits):**

PSYC	101	General Psychology (formerly PSYC 201).....	3
	102	Psychology as a Natural Science.....	3

*Choose one of the following developmental grouping: \**

PSYC	206	Child and Adolescent Development* .....	3
	207	Adult Development and Aging* .....	3
	208	Lifespan Development for Non-Majors* .....	3
	209	Psychology of the Exceptional Child.....	3
	308	Guidance of Children** .....	3

*Choose one of the following biological/cognitive grouping:*

PSYC	305	Physiological Psychology*** .....	3
	331	Sensation & Perception*** .....	3
	332	Cognitive Processes*** .....	3
	333	Learning*** .....	3

*Choose one of the following clinical/applied grouping:*

PSYC	210	Gender Issues.....	3
	215	Industrial/Organizational Psychology.....	3
	220	Addictions .....	3
	341	Family Violence.....	3
	342	Loss & Grief.....	3
	343	Social Psychology**** .....	3

345	Abnormal Psychology****	3
346	Theories of Personality****	3
<i>One additional course from any of the groupings above*</i>		3

\*Exception: PSYC 208 may not be chosen if the student has completed PSYC 206 or PSYC 207.

PSYC 206 or PSYC 207 may not be taken if the student has taken PSYC 208.

\*\*Prerequisite: PSYC 206 or 208

\*\*\* Prerequisite: PSYC 101 and 102

\*\*\*\* Prerequisite: PSYC 101

All prerequisites must be met for the course to be taken in the minor.

## Minor in Religious Studies (6 courses/18 credits)

The Religious Studies minor provides students with a deeper and broader exploration into various disciplines of theological study. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses: 15 credits + 3 credits from a core Religious Studies course.

### Required Courses: (9 credits)

Core Religious Studies ..... 3

RELS	210	Jesus the Christ.....	3
	301	Christian Morality.....	3

*One course (3 credits) in Scripture chosen from among:*

RELS	107	The Gospel according to Mark.....	3
	109	The Gospel according to Matthew.....	3
	110	The Gospel according to Luke.....	3
	205	Prophets of Israel.....	3
	207	Introduction to Saint Paul.....	3

*One course (3 credits) in Systematic Theology chosen from among:*

RELS	113	Sacraments.....	3
	202	Methods in Religious Education.....	3
	206	Women and Religion.....	3
	215	Religion in America.....	3
	310	Christian Marriage in the Modern World.....	3
	315	The Gospel of Peace and Justice.....	3
	408	The Church in the Modern World.....	3
	409	Christian Mysticism.....	3
	410	Dante's Divine Comedy.....	3
	325/425	Junior or Senior Seminar.....	3
	431-499	Religious Studies Special Topics.....	3

*One course (3 credits) in Historical Theology chosen from among:*

RELS	112	History of Christianity I.....	3
	212	History of Christianity II.....	3
	213	History of the Catholic Church in the U.S.....	3

215	Religion in America.....	3
408	The Church in the Modern World.....	3

**Minor in Sociology (6 courses/18 credits)**

The minor in Sociology gives the student an introduction to the content and methodology of the field. All prerequisites must be met for the course to be taken in the minor. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses to be selected as follows:

**Requirement Courses: (12 credits)**

SOCO	101	Introductory Sociology (Core).....	3
	201	Social Problems.....	3
	203	Social Theory.....	3
	212	Race, Class, & Gender.....	3

*Choose one 300 Level SOCO Course from Group 2: (3 credits)*

SOCO	305	Aging in America .....	3
	306	Sociology of the City .....	3
	310	Medical Sociology .....	3
	315	Sociology of Work .....	3
	330	Junior Seminar in the Social Sciences.....	3
	341	Family Violence .....	3
	342	Loss and Grief.....	3
	343	Social Psychology.....	3
Sociology Elective		.....	3

Student may choose ANY Sociology course.

**Minor in Spanish (6 courses/18 credits)**

The objective of the minor in Spanish is to enable students majoring in any field to acquire proficiency in the language, understanding the richness of its culture, and knowledge of the countries in which the language is spoken. The coursework needed to earn a minor in Spanish at Holy Family is challenging but achievable. It is thought to provide the necessary linguistic and cultural skills, and knowledge that the students will need to function successfully in the target language, in a variety of situations and topics. Minimum grade of C is required. Only six transfer credits will be accepted toward the minor.

The minor consists of six courses at the 200 level and above.

**Required Courses (6 credits):**

SPAN	201	Advanced Grammar and Composition I .....	3
	202	Advanced Grammar and Composition II.....	3

**Electives: (Language, Literacy, Content and Literature courses)***Choice of three (9 credits):*

SPAN	204	Spanish-American Civilization.....	3
	302	Hispanic Influences in the US (taught in English).....	3
	308	Applied Linguistics.....	3
	309	Conversation and Language Activities I.....	3
	310	Conversation and Language Activities II .....	3
	311	Spanish Non-Fiction .....	3

*Choice of one (3 credits):*

SPAN	315	Literary Analysis.....	3
	449	Readings in Spanish.....	3

*\*All prerequisites must be met for the course to be taken in the minor.*