

**CERTIFICATION AREAS OF CONCENTRATION
OFFERED AT URSINUS COLLEGE**

ENGLISH

FOREIGN LANGUAGES

FRENCH

GERMAN

JAPANESE

LATIN

SPANISH

HEALTH AND PHYSICAL EDUCATION

MATHEMATICS

SCIENCES

BIOLOGY

CHEMISTRY

ENVIRONMENTAL STUDIES

GENERAL SCIENCE

PHYSICS

SOCIAL STUDIES

URSINUS COLLEGE COMPETENCIES FOR ENGLISH CERTIFICATION

The person certified in **English** should:

1. Be familiar with major historical and literary periods
2. Be familiar with various types of literary genres
3. Demonstrate competency in grammar
4. Demonstrate competency in writing for different purposes
5. Demonstrate competency in speaking for different purposes
6. Have an understanding of how students develop language skills
7. Be able to integrate reading, critical listening, speaking, and writing in individual lessons
8. Be competent in designing and producing a variety of instructional media
9. Utilize audio-visual aids and student in-class work and homework to reinforce content
10. Teach according to objectives and intended outcomes
11. Employ a variety of instructional methods that respond to students' learning styles
12. Create a friendly but business-like classroom atmosphere
13. Design tests and authentic assessments that focus on previously established objectives
14. Provide students with clear expectations of their behavior that are consistently upheld
15. Maintain a professional appearance of dress, mannerisms, and speech.

Copies of the Pennsylvania Standards for Program Approval in **English** Certification are available in the Education Department.

Ursinus College Teacher Certification Program
ENGLISH

Required courses and activities for certification in English.

Like all English majors, candidates for certification must complete at least ten (10) courses in English including English 290W, 291, 292, 293, three 300-level Colloquia, a senior seminar, and electives. These ten courses should include literary genres, themes, historical movements and major writers. **All candidates for teacher certification in English must take at least one 300 level English course at Ursinus College.**

To meet state education department guidelines, candidates must select the following courses:

Writing/Language/Composition

ENG 214 Linguistics and Modern Grammar
ENG 290W Methods in Literary Studies
(ENG 214 counts as an elective for the English major.)

Speaking and Listening

ENG 400 level: Oral Presentation in senior seminar or honors project

Evaluating Media: Film (ONE of the following)

ENG/MCS 280	Film Studies	MCS 105	Media and Society
MCS 281	Media Criticism	FS 101	Introduction to Film Studies
FS 235	History of Film	FS 250	Topics in National Cinema
FS 251	Topics in Film Genre	FS 252	Topics in Film and Identity
FS 253	Special Topics in Film Studies	FS 305	Film Theory and Criticism

The following areas of study are not required but are very strongly recommended:

Shakespeare (English 240, or 300-level Colloquium on Shakespeare)

Mythology (IDS 101 World Literature I, or English 226 Mythology)

Experiences

It is strongly recommended that the candidate participate in journalism or theater activities (to prepare for future advising responsibilities.)

Note: The English Department requires a GPA in the major 2.80.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

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URSINUS COLLEGE COMPETENCIES FOR FOREIGN LANGUAGE

FOREIGN LANGUAGE PROGRAMS OFFERED

FRENCH
GERMAN
JAPANESE
LATIN
SPANISH

The person certified in **Foreign Languages** should:

1. Demonstrate knowledge of the elements for successful lesson planning with emphasis on balance, time, variety, materials, number of activities, order of activities, and skill development.
2. Demonstrate the ability to teach all four language skills (listening, speaking, reading, and writing), using appropriate and varied techniques and materials.
3. Possess knowledge of the history of foreign language education in the United States with emphasis on current research about methodology
4. Plan meaningful lessons which include the teaching of culture within the context of the lesson at hand, using authentic materials whenever possible
5. Demonstrate the ability, through the teaching of vocabulary, grammar, and culture, to create testing devices for language skills which challenge students' abilities and meet the given objectives
6. Encourage and motivate students to become proficient in the target language by collecting practical, effective, and creative ideas (an idea file) to teach vocabulary, grammar, and culture in all languages, at all language levels, and at all grade levels.
7. Stay current regarding foreign language trends and terminology
8. Enroll in one of the various professional organizations for foreign language teachers.
9. Preview and be aware of sources for teaching materials (such as visuals, tapes, supplementary books, realia) to enhance his/her classroom teaching.

Copies of the Pennsylvania Standards for Program Approval in **Foreign Language** Certification are available in the Education Department.

Ursinus College Teacher Certification Program

FRENCH

Required courses and activities for certification in French.

Candidates for certification must complete a minimum of twenty-four (24) credit hours at the 200 level and above and maintain a GPA of 3.00 in French courses. **Post-baccalaureate students will be considered on a case-by-case basis.**

French

- 251 Introduction to French Literature
- 252 Le Monde Francophone **or** 254 Contes et nouvelles
- 314 France Today (or approved substituted course by Language Department)
- 328 Advanced Grammar and Translation

Plus two (2) additional courses at the 300 or 400 level. The student is advised to take appropriate courses in Anthropology, History, Politics, Economics and Intercultural Communication.

Activities

Pass an assessment for admission to candidacy for certification and before being recommended for certification.

Spend a summer, a semester, or an entire year in a foreign country with a program approved by the Modern Languages Department.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

Ursinus College Teacher Certification Program GERMAN

Required courses and activities for certification in German.

Candidates for certification must complete a minimum of twenty-four (24) credit hours at the 200 level and above and maintain a GPA of 3.00 in German courses. **Post-baccalaureate students will be considered on a case-by-case basis.**

German

- 251 German Literature I
- 252 German Literature II
- 314 German Studies in Literature and Culture
- 328 Advanced German Grammar

Plus two (2) additional courses at the 300 or 400 level. The student is advised to take appropriate courses in Anthropology, History, Politics, Economics and Intercultural Communication.

Activities

Pass a qualifying exam for admission to candidacy for certification, and pass a competency exam before being recommended for certification.

Spend a summer, a semester, or an entire year in a foreign country with a program approved by the Modern Languages Department.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

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Ursinus College Teacher Certification Program JAPANESE

Required courses and activities for certification in Japanese.

Post-baccalaureate students will be considered on a case-by-case basis.

Japanese

- 211 Intermediate Japanese I
- 212 Intermediate Japanese II
- 311 Advanced Japanese I
- 312 Advanced Japanese II
- 328 Advanced Japanese Grammar

East Asian Studies

One of the following:

- EAS 301 Summer Study in Japan*
- EAS 399 Semester in Japan*

Two of the following:

- EAS 299 Topics in East Asian Studies
- EAS 314 Japanese Culture and Society
- EAS 224 Japanese Literature in Translation
- HIS 243 Introduction to the History and Culture of Japan
(offered Fall semester in even years)
- POL 346 East Asian Democracy
(Note: Prerequisites are:
POL 242 Comparative Politics)

The student is advised to take appropriate courses in Anthropology, History, Politics, Economics and Intercultural Communication.

Activities

Pass an assessment for admission to candidacy for certification and before being recommended for certification.

*Study in Japan. Options include the College's five-week program in Japan or a semester or year in a program approved by the Modern Languages Department

A GPA of 3.00 in Japanese courses is required of all prospective Japanese teachers. For the certified teacher, work in foreign language pedagogy and demonstration of teaching competency in Japanese are required. For the candidate without prior teacher certification, the candidate must complete the professional education sequence.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

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Ursinus College Teacher Certification Program LATIN

Required courses and activities for certification in Latin.

Post-baccalaureate students will be considered on a case-by-case basis.

Latin

Five (5) courses are required, one of which must be 300 level or above.

History

261 The Pre-Modern World

English

214 Linguistics and Modern Grammar

Classics

One of the following:

321 Topics in Classical Studies (equivalent to English 230)

326 Mythology (equivalent to English 226)

Art

150 History of Art I: Ancient Through Early Christian and Byzantine

Anthropology

100 Introduction to Sociocultural Anthropology

NOTE: In order to be recommended for student teaching of Latin, the student must earn a “B” (3.00) average for courses in the certification program.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State

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Ursinus College Teacher Certification Program SPANISH

Required courses and activities for certification in Spanish.

Post-baccalaureate students will be considered on a case-by-case basis.

A minimum of 24 credit hours at the 200 level and above.

Spanish

- 251 Survey of Spanish Literature
- 252 Survey of Latin American Literature
- 317 The Hispanic World
- 328 Advanced Spanish Grammar

Plus two additional courses at the 300 or 400 level. The student is advised to take appropriate courses in Anthropology, History, Politics, Economics and Intercultural Communication.

A GPA of 3.00 in Spanish courses is required of all prospective Spanish teachers.

Activities

Pass an assessment for admission to candidacy for certification and before being recommended for certification. This assessment includes an evaluation of the prospective teacher's listening, speaking, reading and writing skills in Spanish as well as his/her cultural knowledge of Spanish-speaking countries.

Spend a summer, semester, or an entire year in a foreign country with a program approved by the Modern Languages Department.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State

URSINUS COLLEGE COMPETENCIES FOR HEALTH AND PHYSICAL EDUCATION

The person certified in **Health and Physical Education** should:

1. construct appropriate lesson objectives from the cognitive, affective, and psychomotor domains
2. determine appropriate standards of performance and conditions under which performance will be judged
3. provide for individual difference to maximize learning
4. effectively communicate educational objectives to the learner
5. select and organize learning activities which support lesson objectives
6. develop units of instruction and daily lesson plans
7. select appropriate teaching styles to achieve objectives
8. plan for adjustments within a lesson to accommodate the unforeseen
9. plan activities appropriate to the needs of special populations
10. provide for maximum safety within learning activities
11. plan for smooth transitions between activities
12. plan activities to maintain a focus of instruction and minimize off-task behavior
13. plan learning activities which foster growth within the dimensions of human movement
14. employ various teaching strategies to assist learners by providing examples, questions, clarifications, etc.
15. be sensitive to the needs and emotions of the learner, listen to and accept feedback from learners
16. provide positive reinforcement for a learner's behavior
17. give clear, explicit directions and demonstrate skills within the learning activity
18. coordinate space, materials, equipment, and time to successfully complete the learning activity
19. use a variety of effective communication modes
20. self-evaluate teaching behavior and adjustments
21. diagnose, identify, and remedy sources of off-task behavior
22. administer and interpret a variety of standardized and/or self-made assessment techniques
23. involve the learner in the assessment and interpretation of her/his own progress
24. summarize and report on the learner's progress
25. adjust teaching styles based on feedback

Ursinus College Teacher Certification Program HEALTH AND PHYSICAL EDUCATION

Exercise and Sport Science

- ESS 100 Concepts of Wellness and Fitness
- ESS 161W Introduction to Research Writing
- ESS 220 Critical Components of Conditioning
- ESS 223 Teaching Games for Understanding: Team Sports
- ESS 224 Theory and Analysis of Teaching Individual/Dual Sports
- or** ESS 209 Special Topics in Complementary Medicine and Holistic Health
- ESS 232W Current Trends in Health
- ESS 235 Life Guarding **or** an approved swimming class with CPR and First Aid Certification
- ESS 245 Leadership in Group Initiatives & Adventure Activities
- ESS 265 Technology Applications in Exercise and Sport Science
- ESS 333 Drugs and Alcohol – Use and Abuse in Modern Society
- ESS 334 Nutrition
- ESS 351 Structural Kinesiology
- ESS 352 Exercise Physiology
- ESS 355 Methods of Teaching Secondary Health and Physical Education
- ESS 356 Methods of Teaching Elementary Health and Physical Education
- ESS 462 Administration in Exercise and Sport Science
- ESS 464 Adapted Physical Education

Dance

- DANC 200 Fundamental Dance Technique
- Or** an approved Dance elective

Biology

- BIO 305 Human Anatomy & Functional Morphology
- BIO 306 Human Physiology

Capstone Experience: A requirement for an Ursinus degree in Exercise and Sport Science. One of the following courses will meet the capstone experience:

- ESS 465 Health and Physical Education Teaching Seminar
- ESS 491 Research /Independent Work

Note: Candidates for teaching certification must maintain a 2.8 GPA in ESS courses to be eligible for student teaching. In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

URSINUS COLLEGE COMPETENCIES FOR MATHEMATICS

The person certified in **Mathematics** should:

1. Create a learning environment that fosters the development of each student's mathematical ability
2. Engage students in tasks that promote the understanding of concepts, procedures, and connections of mathematics with practical situations in everyday life
3. Be able to work with a diverse range of students individually, in small groups, and in large group settings to encourage every student to develop a positive disposition towards mathematics
4. Provide a classroom forum which will elicit, engage, and challenge each student's thinking ability and refine his or her inductive and deductive reasoning skills
5. Stimulate students to make connections and develop a coherent mathematical framework, particularly as it is integrated with computers, physics, chemistry, and the other sciences
6. Conduct learning activities involving a variety of new technologies which allow students to make decisions and select the means by which exploration, representation, and data analysis aid in problem solving
7. Use a variety of assessment methods to determine students' understanding of mathematics
8. Constantly be aware of new content and techniques for mathematics and be able to design a curriculum which actively engages students at appropriate levels
9. Provide and structure the classroom time for adequate problem solving strategies and mathematical modeling necessary for the teaching and learning of basic principles
10. Develop effective experiences which will encourage students to raise questions, formulate conjectures, and support ideas with mathematical reasoning.

Ursinus College Teacher Certification Program

Mathematics

Required courses and activities for certification in mathematics

Math

112	Calculus II
211	Multivariate Calculus
235	Linear Algebra
236W	Discrete Mathematics
311W	Analysis I
322	Modern Geometry
335	Abstract Algebra
341	Probability
350	Oral Presentation (must be some aspect of the History of Mathematics)*
442	Mathematical Statistics

Computer Science

173	Introduction to Computer Science
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Recommended courses

241	Statistics I
242	Statistics II
310	Differential Equations and Mathematical Models
382	History of Mathematics
421	Topology
434	Theory of Numbers

Note: If a student can take Math 241-242, they should be taken before Math 341-442.

Experiences

A demonstration of a sample teaching lesson prior to student teaching.

Observation during the student teaching experience by a member of the Mathematics Department.

NOTE: Prospective student teachers in mathematics must have a 2.50 average in their courses taken in the Mathematics and Computer Science Department at the Ursinus College day school at the time the Department considers them for student teaching. Non-traditional and transfer students will be considered on an individual basis.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the Commonwealth in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

*See UC catalogue Courses of Instruction for Mathematics (Secondary Certification).

**URSINUS COLLEGE COMPETENCIES FOR SCIENCE
SCIENCE PROGRAMS OFFERED**

**BIOLOGY
CHEMISTRY
ENVIRONMENTAL STUDIES
GENERAL SCIENCE
PHYSICS**

The person certified in **Science** should:

1. Build a knowledge base of educational resources in science education
2. Apply effective classroom techniques and procedures
3. Direct the use of computers in science education
4. Teach the scientific method and relate it to everyday experiences
5. Implement appropriate laboratory exercises in which students take part in the scientific process
6. Assist in addressing current ethical issues and new technologies in science
7. Implement classroom activities which will generate critical thinking and potential solutions to environmental issues
8. Have knowledge of appropriate laboratory safety with regard to disposal of dangerous chemicals in the high school laboratories.
9. Work appropriately with exceptional students in lecture and laboratory situation
10. Become active in the development of Outcomes-Based Education in their school district.

Ursinus College Teacher Certification Program

BIOLOGY

Required Biology Core

Biology 101Q	Issues in Ecology and Evolution
Biology 102Q	Cell Biology and Genetics of Health and Disease
Biology 201W	Genetics and Biology of the Cell
Biology 250 OR 415W	Environmental Biology OR Ecology (Either course fulfills the Population/Ecology group)

Distribution Courses: One course from each group

Molecular/Cellular	Bio 345 Microbiology; Bio 346 Developmental Biology; Bio 426W Molecular Biology; Bio 429W Structural Biology; Bio 431W Cellular Neurobiology; Bio 433W Molecular Neurobiology; Bio 449W Immunology; Bio 459W Virology
Animal Biology	Bio 305 Human Anatomy and Functional Morphology; Bio 306 Human Physiology; Bio 349 Experimental Physiology; Bio 442W Mammalogy
Plant Biology	Bio 334 Plant Biology; Bio 335 Plant Physiology
Population/Ecology	Bio 222 Vertebrate Biology; Bio 232 Ethology; Bio 250 Environmental Biology; Bio. 310 Biological Oceanography; Bio 320 Biology of the Neotropics; Bio 330 Marine Biology; Bio 415W Ecology; Bio 424W Evolution

Capstone Courses

Bio 415W Ecology; Bio 424W Evolution; Bio 426W Molecular Biology; Bio 429W Structural Biology; Bio 431W Cellular Neurobiology; Bio 433W Molecular Neurobiology; Bio 442W Mammalogy; Bio 449W Immunology; Bio 459W Virology; 492W Honors Research

Ancillary Courses

Chem 105, 105L And choice of Chem 106, 106L OR Chem 206, 206L	General Chemistry I: Foundations, Lab Organic Chemistry I, Lab General Chemistry II: Analysis, Lab
Geology 105Q	Environmental Geology
Physics 100Q OR Physics 111Q	Introductory Physics General Physics
Math/Computer Science; Two of the Following:	Math 108 or 111 Calculus I; Math 112 Calculus II; Math 241Q Statistics I; Math 242 Statistics II; Math 243 Biostatistics; CS 173 Introduction to Computer Science

Activities:

Work as a laboratory assistant or participate in training. In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. The Biology Department requires that undergraduate candidates attain a GPA of 2.50 in biology coursework in order to be recommended for student teaching and in order to obtain certification. Additional certification in General Science is only available to certified biology, chemistry or physics majors. See the Education Department for additional information regarding overall GPA requirements for eligibility in the State.

Ursinus College Teacher Certification Program CHEMISTRY

Required courses for certification in chemistry.*

Required Courses:

CHEM	105, 105L	General Chemistry I with laboratory
CHEM	206, 206LQ	General Chemistry II with laboratory
CHEM	106, 106L	Organic Chemistry I with laboratory
CHEM	205, 205L	Organic Chemistry II with laboratory
CHEM	309, 309L	Physical Chemistry I with laboratory
OR		
BCBM	307, 309L	Physical Chemistry for the Life Sciences with laboratory
CHEM	322, 322L	Inorganic Chemistry with laboratory
ENV	100	Issues in Environmental Issues

* These are the required chemistry courses required by the Commonwealth for certification in Chemistry. Additional courses are required for a degree in chemistry. For degree requirements please consult the latest College catalogue.

Required Activities:

Work as a laboratory assistant and participate in training for that job. Participate actively in the Beardwood Chemical Society.

NOTE: Prospective student teachers in chemistry must have a 2.50 GPA in chemistry and receive a departmental evaluation which considers, in addition to academic performance, the student's interpersonal and communication skills. Also, a member of the Chemistry Department must observe prospective student teachers during their student teaching experience.

The candidate for certification in chemistry is advised that, in order to teach comprehensive general science at the junior high or middle school level, additional certification in general science may be required.

Additional certification in general science is only available to certified biology, chemistry or physics teachers.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

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Ursinus College Teacher Certification Program

ENVIRONMENTAL EDUCATION

Students seeking certification in Environmental Education must fulfill a major in Environmental Studies.

Requirements for Majors

All students majoring in Environmental Studies must take a minimum of 11 courses from among three categories: ENV core courses, ENV electives in the natural sciences, and ENV electives in the social sciences and humanities. All ENV majors must also complete a minor in another field of study. The ENV curricular requirements are as follows:

ENV core courses (must complete all of the following):

ENV-100 Issues in Environmental Studies

ENV/BIO-250 Environmental Biology

Three synthesis courses that require prior completion of ENV-100, from among the following:

- ENV-272 Marine Mammal Conservation and Management
- ENV-340W Food, Society, and the Environment
- ENV-360 Conserving Biological Diversity
- ENV-362 Managing Parks and Protected Areas
- ENV-364 Ecosystem Management

ENV-381A or 381B Internship

ENV-470W Environmental Studies Senior Seminar

ENV courses in the natural sciences (must take two of the following courses):

Biology: ENV/BIO-220 Biology of Maya Mexico
ENV/BIO-310 Biological Oceanography
ENV/BIO-320 Biology of the Neotropics
ENV/BIO-330 Marine Biology
ENV/BIO-394 Watershed Investigations and Actions
ENV/BIO-415W Ecology

Chemistry: ENV/CHEM-101 Environmental Chemistry

Geology: ENV/GEOL-105Q Environmental Geology

ENV courses in the social sciences and humanities (must take courses in two of the following disciplines):

Anthropology/Sociology: ENV/ANTH-352 Peoples and their Environments
ENV/SOC-220 Environmental Justice
ENV/SOC-285 Environmental Sociology

Economics: ENV/BE-213 Economics of Environment and Natural Resources

English: ENV/ENGL-262 The Environment in Literature

Environmental Studies: ENV-430W Advanced Environmental Policy Analysis

Philosophy: ENV/PHIL-348 Environmental Ethics

Politics: ENV/POL-326 Environmental Law

Psychology: ENV/PSYC-282 Environmental Psychology

In consultation with the ENV program director, students may petition to have ENV-350 (Topics in Environmental Studies), ENV-481W or 482W (independent research), or ENV-491W and ENV-492W (honors research) satisfy requirements in the synthesis, natural science, or social science/humanities categories. For independent or honors research to fulfill the major requirements students must have completed 12 semester hours of environmental studies courses, including ENV-100, and receive permission of the ENV program director. The Environmental Studies Program requires that undergraduate candidates attain a GPA of 2.50 in Environmental Studies coursework in order to be recommended for student teaching and in order to obtain certification.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

Ursinus College Teacher Certification Program GENERAL SCIENCE

Candidates must obtain certification in biology, chemistry, or physics in order to be eligible for certification in general science.

Required courses and activities for certification in general science.*

Biology

101Q Issues in Ecology and Evolution
102Q Cell Biology and Genetics of Health and Disease

Chemistry

105, 105L General Chemistry I: Foundations, Lab
106, 106L Organic Chemistry I, Lab

Physics

111Q, 112 General Physics I, II

Earth & Space Sciences

PHYS 101Q Stars and Galaxies
GEOL 105Q Environmental Geology

Mathematics

Any two (2) of the following courses:

111**, 112 Calculus I, II
173 Introduction to Computer Science
241Q, 242 Statistics I, II

Activities

Work as a laboratory assistant or participate in training.

*The candidate for certification in general science is advised that this credential is most appropriate for junior high or middle school comprehensive general science teaching and for high school courses in general science.

**Students who are not prepared to take Math 111 should substitute the sequence Math 107-108 for Math 111.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

Ursinus College Certification Program

PHYSICS

Required courses and activities for certification in physics.*

Physics

111Q	General Physics I
112	General Physics II
207	Modern Physics
209	Circuits
210	Intermediate Classical Physics
210a	Intermediate Classical Physics Lab
212	Classical & Quantum Mechanical Waves
309	Electromagnetism
315	Mathematical Physics I
408W	Advanced Physics Laboratory

At least two of the following:

301	Introduction to Astrophysics
304	Thermodynamics
316	Mathematical Physics II
401	Applications of Quantum Mechanics
405	Computational Physics
410	Classical Mechanics

Chemistry

105, 105a	General Chemistry I: Foundations/Lab
206, 206aq	General Chemistry II: Analysis/Lab

Mathematics

112	Calculus II
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Biology

101Q	Issues in Ecology and Evolution
	or
102Q	Cell Biology and Genetics of Health and Disease
	or
ENV 100	Issues in Environmental Studies

Activities

Work as a laboratory assistant or participate in training.

*The candidate for certification is advised that, in order to teach comprehensive general science at the junior high/middle school, additional certification in general science may be required.

NOTE: To be approved for student teaching, a candidate must have 1) attained an average of 2.50 in required physics and mathematics courses and 2) demonstrated the interpersonal and communication skills necessary to convey ideas and concepts to others.

In addition to these requirements, the candidate for certification must complete the professional education sequence, the necessary Praxis exams, and maintain the overall GPA required by the State in order to be recommended for certification. The Education Department requires a GPA of 3.00 in Education courses in order to student teach. See the Education Department for additional information regarding the overall GPA requirement for eligibility by the State.

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URSINUS COLLEGE COMPETENCIES FOR SOCIAL STUDIES

The person certified in **Social Studies** should:

1. Understand the Pennsylvania Social Studies requirements for secondary schools
2. Demonstrate a knowledge of sources for preparing units of study
3. Demonstrate knowledge and use of criteria for evaluating textbooks and other teaching materials
4. Develop an understanding of techniques in dealing with controversial topics in the classroom
5. Learn the characteristics of a good Social Studies teacher
6. Learn various methods of teaching current events
7. Develop an understanding of various methods of teaching Social Studies

Copies of the Pennsylvania Standards for Program Approval in **Social Studies** are available in the Education Department.

Ursinus College Teacher Certification Program SOCIAL STUDIES

Note: Post-baccalaureate Social Studies certification candidates who have not taken the required Methodology course as an undergraduate will be required to take HIST-200W as their Methodology course at Ursinus.

Required courses and activities for Social Studies certification:

- A. Students must **major** in American Studies, Anthropology, Business and Economics, East Asian Studies, History, International Relations, Politics, Psychology, or Sociology. To be admitted to student teaching, a Social Studies certification candidate must have a **2.67 GPA** for courses in his or her major.
- B. Students must complete both semesters of the Ursinus College Common Intellectual Experience course sequence (CIE100 & CIE 200) or the Ursinus Center for Continuous Learning introductory Intellectual Experience course (Humanities 210 & Humanities 211). Note: History 261 (or its equivalent) may be substituted for the CIE100/200 or Humanities 210/211 sequence for eligible transfer or post-baccalaureate candidates.

- C. Students must take the following courses: (total 9 courses = 36 credits)

Anthropology	(1)	<u>any</u>	Anthropology course (Anthropology 100 <u>or</u> Anthropology 252 is recommended)
Business & Economics	(1)	100	The Global Economy
History	(3)	262	The Modern World
		<u>and</u>	<u>one</u> pre-1877 U.S. History course, from:
		213	American History, 1500-1877 <u>or</u>
		222	African-American History I <u>or</u>
		321	Colonial America <u>or</u>
		322	Revolutionary America <u>or</u>
		323	Civil War America
		<u>and</u>	<u>one</u> post-1877 U.S. History course, from:
		214	Modern American History, 1877-Present <u>or</u>
		220	The Philadelphia Story: the City as Text <u>or</u>
		223	African-American History II <u>or</u>
		327	Topics in Modern United States History
<u>Note:</u> HIST/GWMS-328 (Women in American History) or HIST-331 (Topics in African-American History) may be taken to fulfill <u>either</u> the pre-1877 <u>or</u> post-1877 U.S. History course requirement.			
Politics	(2)	218	American Government
		<u>and</u>	<u>either</u> :
		242	Comparative Government <u>or</u>
		252	International Relations
Sociology	(1)	<u>any</u>	Sociology course (Sociology 100 <u>or</u> Sociology 247 is recommended)
Methodology	(1)	<u>one</u>	from:
Anthropology/Sociology		{200	Methods in Anthropology & Sociology <u>and</u>
		{200L	ANSO 200 Lab
Business & Economics		220	Business Statistics
History		200W	Historiography and Methodology
Politics		237W	Political Philosophy <u>or</u>

