

# MINORS 2009-10



## COLLEGE OF SCIENCE & TECHNOLOGY

Office of Student Services  
1810 Liacouras Walk, Suite 203  
(215) 204-2890

### BIOLOGY

255 Biology Life Sciences Bldg. (215) 204-8851  
Chairperson: Dr. Shohreh Amini  
Advisor: Dr. Shepherd Roberts

- Introduction to Biology (Bio 2112)
- Introduction to Biology (Bio 1111)
- Biology Elective (2000 or above)\*
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\*At least one of these electives must be a course with a laboratory. See course descriptions for exceptions to Biology electives. Note that Chemistry C071 and C072 (with labs) are the co- or pre-requisites for Biology 0101 and 0102. (Minimum of 18 credits)

### COMPUTER SCIENCE

303 Wachman Hall (215) 204-8450  
Chairman: Dr. Justin Yuan Shi  
Faculty Advisor: Dr. Sally Kyvernitis

- Program Design and Abstraction (CIS 1068)
- Mathematical Concepts in Computing I (CIS 1166)
- Computer Systems and Low-Level Programming (CIS 2107)
- Data Structures (CIS 2168)
- CIS Independent Study (CIS 4282) or an approved 2000 or 3000 level CIS course

### INFORMATION SCIENCE & TECHNOLOGY

303 Wachman Hall (215) 204-8450  
Chairman: Dr. Justin Yuan Shi  
Faculty Advisor: Dr. Gary Baram

- Introduction to IS&T (CIS 1048)
- Higher Level Languages (CIS 1073)
- Database & File Management Systems (CIS 2109)
- Selected one elective from:  
Object-Oriented Programming (CIS 2173) or  
Operating Systems and Networking (CIS 3229)
- Select a 3000-level course related to IT from a Temple department. Needs IS&T advisor approval.

### MATHEMATICS

638 Wachman Hall (215) 204-7841  
Chairperson: Dr. Omar Hijab  
Faculty Advisor: Dr. Boris Datskovsky

- Calculus I (Math 1041)
- Calculus II (Math 1042)
- Calculus III (Math 2043)
- Programming (CIS 1053, 1057, 1068, 2168, or Physics 2501)
- Linear Algebra (Math 2101)
- Math Elective (3000 or above or Math 2196)
- Math Elective (3000 or above)
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### PHYSICS

A116 Barton Hall (215) 204-7634  
Chairperson: Dr. Rongjia Tao  
Faculty Advisor: Dr. Zbigniew Dziembowski

- Elem. Classical Physics I (Physics 1061)
- Elem. Classical Physics II (Physics 1062)
- Introduction to Modern Physics with Lab (Physics 2701)
- Electricity & Magnetism with Lab (Physics 3301) or Intro. to Electromagnetic Fields & Waves (EE 3712)
- Physics Elective (2000 or above)\*
- Physics Elective (2000 or above)\*

\* Electives must be approved by the Undergraduate Physics Adviser

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## ENVIRONMENTAL STUDIES MINOR 2009-2010

330 Gladfelter Hall (215) 204-5918  
Director: Dr. Robert Mason  
Faculty Advisor: Dr. Dennis Terry

- Environment and Society (Envt. St./GUS 1051 or 1951)
- Principles of Ecology (Bio 2227) (Prereq. Bio 1111 and 2112)

**OR**

Intro. to Hydrology (Geology 3021)

**OR**

Fundamentals of Geographic Information Systems  
(Envt. St. GUS 3062)

**OR**

Energy, Ecology, and Economy (Econ 3596)  
(Prereq. Econ 1101 & 1102)

- Policy Elective\*
- Topics Elective\*
- Topics Elective\*
- Topics Elective\*

\* Check the Course Description Guide for the prerequisite structure in science departments. Updates to the electives lists can be found on the ES website ([www.temple.edu/env-stud](http://www.temple.edu/env-stud))

If an environmental studies course is cross-listed with another department course, you will only receive credit for one of these courses.

## Environmental Studies Minor Elective Choices:

### Policy

ES/Anthro 3175  
Econ 3512, 3513  
EET 4761  
ES 3025  
ES/GUS 3051  
ES/Pol Sci 3152  
Community & Regional Planning 2014

### Topics

ES/Anthro 3170, 3189, 4117, 4775, 4796  
Bio 2227, 2238, 3196, 3245, 3316, 3336  
Botany 1112  
Community & Regional Planning 1027, 2114, 2213, 3256, 2524  
ES 3000, 4085, 4082  
ES/GUS 2051, 4015, 3052, 4071, 3054, 4056, 4051, 3062, 3097  
Geol 3013, 2021, 2061, 3011, 4997  
ES/ Hist 3214  
Hort 2114, 3514, 2334, 2353  
JPRA 3253  
Land Arch 2144, 2758  
ES/Philos 2596  
Religion 3001

## GEOLOGY MINOR 2008-2009

303 Beury Hall (215) 204-5918  
Chairperson: Dr. David Grandstaff  
Faculty Advisor: Dr. Dennis Terry

- Geology 1001 with lab or Geology 2001 with lab
- Chemistry 1031 & 1033 or Chemistry 1021 & 1023
- Math 1011 or Math 1041
- Geology elective (numbered above 2001)
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To obtain a minor in Geology, students must complete 20 hours of courses in Geology. Geology 1001 or Geology 2001 with lab is required. The remaining courses above the 2001 are chosen with the approval of the Undergraduate Geology Adviser.