

**EXECUTIVE COMMITTEE  
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES  
REPORT TO THE RIVERSIDE DIVISION  
MAY 24, 2022**

To be adopted:

Proposed Changes to the Minor in Environmental Sciences

**PRESENT:**

**PROPOSED:**

**Minor**

[no change]

The minor in Environmental Sciences consists of the following.

[no change]

1. Lower-division requirements (~~23~~-units)  
a) ENSC 002, ~~ENSC 006/ECON 006~~  
b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC 2.

1. Lower-division requirements (23 or 24 units)  
a) ENSC 002  
b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC 2.  
c) One course from ENSC 006, ECON 006, PBPL 001, ECON 003, or POSC 020

- Upper-division requirements (20 units)  
a) ENSC 100, ENSC 101, ENSC 102  
b) Eight (8) units of additional upper-division courses in Environmental Sciences, no more than 4 units of which are in courses numbered 190-198

[no change]

Of the specified upper-division units, a minimum of 16 units must be unique to the minor and may not be used to satisfy major requirements.

[no change]

See Minors under the College of Natural and Agricultural Sciences in the Colleges and Programs section of this catalog for additional information on minors.

[no change]

**Justification:**

With the departure of Environmental Economics faculty to SPP, none of our core faculty have the expertise to teach ENSC 006. In the last few years, a lecturer has been hired to offer this course; however, this may not be sustainable in the long run. Since ENSC 006 is cross-listed as ECON 006, we approached the Chair of the Economics department in case they have faculty to take the lead of this course. We also inquired whether faculty in SPP are willing to take on teaching this course. Neither programs have the ability nor a plan to teach this course as is in the next few years. Given that some faculty strongly believe our majors should be introduced to social/economic/policy aspects of the environment, we didn't want to remove this type of a course from the requirements altogether. After reviewing the catalog course descriptions, we voted to list PBPL 001, ECON 003, and POSC 020 as alternatives since they touch on

one or more of the topics covered in ENSC 006 (please see below). These courses are also offered regularly, allowing our students to fulfill their requirements without a delay. Furthermore, since they are at the introductory level, our students don't need to enroll in additional courses as prerequisites. Our department's decision to add these courses as alternatives to ENSC 006 was shared with the impacted departments in Nov-Dec. 2021 and we received no objections. Below is the list of the topics currently covered in ENSC/ECON 006, followed by descriptions of each of the alternative courses:

**List of Topics covered in ENSC/ECON 006:**

**Introduction to Environmental Economics**

- Coevolution
- Tradeoffs
- Social Priorities
- Contemporary environmental crisis
- Social interventions

**Analytical Tools (supply and demand) and Welfare Analysis**

- Willingness to pay
- Benefits and demand curves
- Costs and supply curves
- Economic efficiency and the Equimarginal Principle
- External costs and open-access resources
- External benefits and public goods

**Environmental Quality**

- Pollution control
- Abatement cost
- Socially efficient level of abatement

**Environmental Policy**

- Command and Control strategies
- Incentive based strategies

**Natural Resource Economics**

- Non Renewable Resources
- Renewable Resources
- Dynamic Equilibrium
- Introduction to Hotelling's rule

**Contemporary Environmental Issues**

- California water resources
- Climate change and global agreements
- Environment and development
- Environment and equity

**Catalog descriptions of the suggested alternative courses:**

**ECON 003 Introduction to Microeconomics 5** Lecture, 3 hours; discussion, 1 hour; written work, 3 hours.

Prerequisite(s): none. An introduction to the study of the economic system from the micro, or individual decision-maker's, perspective. Includes the study of opportunity cost, markets, consumption, production, and competition. Credit is awarded for one of the following ECON 003 or ECON 003H.

**PBPL 001 Introduction to Public Policy**

**Analysis 4** Lecture, 3 hours; discussion, 1 hour. Introduces the basic concepts and processes underlying policy analysis. Includes application of these concepts to economic and budgetary policy, health care policy, welfare and social security policy, education policy, and environmental and energy policy

**POSC 020 World Politics 5** Lecture, 3 hours; discussion, 1 hour; extra reading, 3 hours. Prerequisite(s): none. Explores approaches to and models of international relations: theories, the causes of war, international organizations, cooperation and conflict, international political economy, regional economic agreements, and international social issues such as human rights and the environment. Credit is awarded for only one of POSC 020 or POSC 020H.

**Approvals:**

Approved by the faculty of the Department of Environmental Science:

November 1, 2021

Approved by the Executive Committee of the College of Natural and Agricultural Sciences:

March 1, 2022

Approved by the Committee on Educational Policy:

April 29, 2022