

# SEE Minor

UNIVERSITY OF DAYTON

The SEE minor provides interested students with a deep appreciation of the complexity and inherent multidisciplinary involved in the study of and discussions surrounding sustainability, energy and the environment. In the classroom and with research and experiential opportunities, the SEE minor seeks to strengthen the tradition of the University of Dayton by engaging students and faculty with the City of Dayton and other partners in the Greater Miami Valley region.

The SEE minor students will be active participants in increasing our community's understanding and awareness about how individuals are connected here at UD and across the globe by the greater impacts of our actions. Through this multidisciplinary, inquiry-based approach, SEE students and faculty not only strive to understand how we are connected, but also to encourage, plan, and implement sustainable solutions.

- ***SEE welcomes students from all disciplines across campus.***
- ***Many SEE courses count towards Gen-Ed requirements.***
- ***Study abroad opportunities available. Complete up to 3 SEE courses in one summer.***

Interested students should contact the SEE coordinator in order to obtain materials relating to the SEE minor and guarantee that you will be added to the SEE Initiative's communication lists concerning all SEE news and events on campus.

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## SEE ADVISING

Students in the SEE minor program are expected to be working closely with their major advisor in order to complete the additional courses required for this minor prior to graduation. Students should bring a copy of this checklist with them to all advising meetings and provide updated copies for their major advisor and for the SEE coordinator each semester.

### STAY CONNECTED >>

- ***SEE website: <http://see.udayton.edu>***
- ***SEE email: [see@udayton.edu](mailto:see@udayton.edu)***
- ***Facebook: <http://www.facebook.com/SEEatUDayton>***



**SEE Coordinator**  
Dr. Bob Brecha  
Professor, Department of Physics  
Email: [brecha@udayton.edu](mailto:brecha@udayton.edu)



## Minor Requirements

NAME: \_\_\_\_\_

### SEE 250 – Required for all SEE Minor Students (3 credits)

✓	SEE	Credits	Pre-reqs / Comments
	250 – Intro to SEE	3	

### SEE Core Courses – Choose 2 or 3 courses (6-9 credits)

✓	SEE	Credits	Gen-Ed	Pre-reqs / Comments
	301 – Earth Systems	3	Phys. & Life Sciences	Required for students not majoring in natural science. Pre-req BIO 101, SCI 230 or equivalent
	303 – Construction of Place	3	Arts	
✓	ASI	Credits	Gen-Ed	Pre-reqs / Comments
	320 – Cities & Energy	3	History	
	322,323,324 – Cities & Suburbs	3	Philosophy & Religion, Social Sciences	These courses are cross-listed. Students can only receive credit once.

### SEE Depth Courses – Choose 2 or 3 (6-9 credits) – Project-based / Research Courses

✓	SEE	Credits	Gen-Ed	Pre-reqs / Comments
	401 – Sustainability Research I	3	Philosophy & Religion	
	402 – Sustainability Research II	3	Philosophy & Religion	
	477* - Honors Thesis	3		Thesis - Honors Status
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\* May substitute for SEE 401/402

### May select the following Depth Courses with approval from SEE Coordinator\*\*

✓	ASI	Credits	Gen-Ed	Pre-reqs / Comments
	ASI 345 – River Leadership	3		River Leadership Curriculum
	BIO/GEO/Engineering			SEE-related 300-400 level courses.
	ECO 435 – Econ of Env	3	Social Sciences	ECO 203 or 300
	ENG 342 – Lit and Env	3	Arts	ENG 102 or equivalent
	PHL 321 – Env Ethics	3	Philosophy & Religion	(ASI 111, 112) or PHL 103
	PHL 334 – Phil of Ecology	3	Philosophy & Religion	(ASI 111, 112) or PHL 103
	POL 371 – Env Policy	3	Social Sciences	
	REL 472 – Ecol & Religion	3	Philosophy & Religion	(ASI 111, 112 or equivalent) or (REL 103 or 198)
	SWK 335 – Env Justice	3	Social Sciences	

\*\*This provides a sample of the possible elective depth courses. Please contact the SEE Coordinator if you have any questions about courses that would fulfill this requirement.

Date: \_\_\_\_\_

Total Credits: \_\_\_\_\_ out of 18 required

Advisor: \_\_\_\_\_

Students who wish to minor in Sustainability, Energy and the Environment (SEE) should contact the SEE minor coordinator.

SEE Coordinator: Dr. Bob Brecha, Professor, Department of Physics

[brecha@udayton.edu](mailto:brecha@udayton.edu)

UPDATED: February 2012

### **SEE 250 – INTRODUCTION TO SUSTAINABILITY, ENERGY AND THE ENVIRONMENT – 3 SEM HRS**

Emphasis on learning how to view complex issues from different disciplinary points of view, developing reading and critical thinking skills about current issues in sustainability, gaining an awareness of different ethical positions and how these influence the quest for solutions, and learning how scientific and sociopolitical processes work to investigate and address sustainability issues.

### **SEE 301 – GLOBAL CHANGE AND EARTH SYSTEMS – 3 SEM HRS**

A multidisciplinary introduction to the science of the earth system. Focus is on the interrelatedness of geological, biological, chemical and physical processes, and on methods used to understand both the past natural history and potential future scenarios for change in the earth system.

**Corequisite(s):** BIO 101, SCI 230, or equivalent.

### **SEE 303 – CONSTRUCTION OF PLACE – 3 SEM HRS**

This course engages students in an active and thoughtful relationship with the world in which we live. It is founded on the triad of experience, reflection, and response. Students will participate in a variety of exploratory trips in the Dayton area in order to experience directly a variety of environmental spaces and conditions. They will reflect on these environments through readings, focused discussions, and writing assignments. And they will respond to these environments through the production of creative work that reflects and incorporates their experience and analysis.

### **ASI 320 – CITIES AND ENERGY – 3 SEM HRS**

A team-taught course that looks at the historical relationships, both idealized and real, between the country and the city. Energy transitions over time are examined that center on the changing reliance on human and animal power, water, fossil, and nuclear sources. This course covers the role of energy in each environment and particularly at the growth of cities since the Industrial Revolution, their dependence on an unprecedented abundance of energy, a wide range of positive and negative effects of this phenomenon, and how an inevitable change in energy resources may affect human life in a future that is increasingly focused in cities.

### **ASI 322/23/24 – CITIES AND SUBURBS: THE INFLUENCE OF PLACE (SOC/PHL/REL) – 3 SEM HRS**

This interdisciplinary course examines the changing social, political, economic, cultural, ethical, and religious factors that shape life in cities and suburbs. It examines the factors that influence where people choose to live and the conditions that both unite and divide people across urban/suburban regions. Particular consideration is given to issues of social injustice, privilege and oppression, and moral responsibility. Student receiving credit for one of the cross-listed courses may not receive credit again for one of the other listings.

### **ASI 345 – RIVER LEADERSHIP CURRICULUM (SEMESTERS 1 & 2) – 3 SEM HRS**

The River Leadership Curriculum provides an interdisciplinary study of rivers and watersheds drawing on work in the natural sciences, social sciences, aesthetics, and public policy. Classes are taught by students, faculty, and community partners with a strong emphasis on experiential learning and leadership development. For a full description of this course sequence, please visit the Rivers Institute website at: <http://rivers.udayton.edu/rlc.htm>

### **SEE 401 – SUSTAINABILITY RESEARCH I – 3 SEM HRS**

Interdisciplinary exploration of the issues of sustainability. The scientific, moral, spiritual, social, political, historical, ethical and economic dimensions of sustainability will be explored. Will also provide exploration of the foundations of ethical theory and their application to environmental issues. Students will pursue a research project with the primary focus of sustainability on campus.

**Prerequisite(s):** PHL 103; completion of General Education Natural Science Requirements; junior or senior standing.

### **SEE 402 – SUSTAINABILITY RESEARCH II – 3 SEM HRS**

An interdisciplinary exploration of the issues of sustainability as they affect the Dayton community. Course will also explore political philosophy and the ethical foundations of public policy. Students will choose an in-depth community-based research project.

**Prerequisite(s):** PHL 103; completion of General Education Natural Science Requirements; junior or senior standing.

### **SEE 477/8 – SUSTAINABILITY, ENERGY AND THE ENVIRONMENT HONORS THESIS PROJECT – 3 SEM HRS**

First of two courses leading to the selection, design, investigation, and completion of an independent, original Honors Thesis project under the guidance of a faculty research advisor. Restricted to students in the University Honors Program with permission of the program director and department chairperson. Students pursuing an interdisciplinary thesis topic may register for three semester hours each in two separate disciplines in consultation with department chairpersons.

**Prerequisite(s):** Approval of University Honors Program.