

# Sustainable Design

Sustainable Design implies making decisions at various scales of the built environment (buildings, communities, land use patterns, urban support systems) in ways that support environmental quality, social equity, and economic vitality. The undergraduate minor in Sustainable Design is jointly offered by the Department of Architecture and the Department of Landscape Architecture and Environmental Planning but also includes interdisciplinary courses across campus. The minor is open to all majors at UC Berkeley.

There is no major program; students interested in pursuing this course of study at the major level should consider the BA in Architecture program (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/architecture>) or the BA in Landscape Architecture (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/landscape-architecture>) program.

## Declaring the Minor

A letter grade of C- or higher in ENV DES 1, LD ARCH 1, or LD ARCH 12 (or a 3 or higher in AP Env Sci) is required to declare the minor. To declare, students must submit the CED Request to Add Minor Form (<https://ced.berkeley.edu/students/undergraduate-advising/forms-documents>), available on the CED website. When completing the final requirements for the minor, submit the CED Minor Completion Form (<https://ced.berkeley.edu/students/undergraduate-advising/forms-documents>).

## Other Minors Offered by the Department of Architecture

For information regarding other minors offered by the Department of Architecture, please see the applicable sections in this Guide:

- Architecture (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/architecture>)
- Environmental Design and Urbanism in Developing Countries (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/environmental-design-urbanism-developing-countries>)
- History of the Built Environment (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/history-built-environment>)
- Social and Cultural Factors in Design (<http://guide.berkeley.edu/archive/2017-18/undergraduate/degree-programs/social-cultural-factors-environmental-design>)

## General Information

Websites: Department of Architecture (<http://ced.berkeley.edu/academics/architecture>), Department of Landscape Architecture and Environmental Planning (<http://ced.berkeley.edu/academics/landscape-architecture-environmental-planning>)

Minor Program Faculty Adviser: Mathias Kondolf;  
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Minor Program Staff Adviser: Nancy Trinh, nantrinh@berkeley.edu (worrell@berkeley.edu); 250 Wurster Hall

Department Chair, Architecture: Tom J. Buresh, buresh@berkeley.edu, 232A Wurster Hall, 510-642-4942

Department Chair, Landscape Architecture and Environmental Planning: Louise A. Mozingo; lmozingo@berkeley.edu; 310 Wurster Hall; 510-643-9804

Associate Dean for Undergraduate Studies: Renee Chow; rychow@berkeley.edu; 382D Wurster Hall  
Director, Office of Undergraduate Advising: Susan Hagstrom; hagstrom@berkeley.edu; 250 Wurster Hall  
CED Career Services (<http://ced.berkeley.edu/ced/students/career>)

Students who have a strong interest in an area of study outside their major often decide to complete a minor program. When completing their final requirements for the minor, students must submit the CED Minor Completion Form (<https://ced.berkeley.edu/students/undergraduate-advising/forms-documents>), available on the CED website.

## General Guidelines

1. A letter grade of C- or higher in ENV DES 1, LD ARCH 1, or LD ARCH 12 (or a 3 or higher in AP Env Sci) is required to declare the minor. To declare, submit the CED Request to Add Minor Form (<https://ced.berkeley.edu/students/undergraduate-advising/forms-documents>), available on the CED website.
2. Each course used to fulfill minor requirements must be completed with a letter grade of C- or above.
3. Students must earn a 2.0 GPA in the upper division requirements for the minor.
4. Any course used in fulfillment of minor requirements may also be used to fulfill major and upper division CED non-major requirements.
5. Courses used to fulfill a breadth requirement may also be used to satisfy minor requirements.
6. Students may apply the non-CED version of a CED cross-listed course towards the minor.
7. Students may use up to two courses taken abroad to fulfill upper division minor requirements, with faculty approval of the individual courses.

## Requirements

**Lower Division** (a letter grade of C- or higher is required to declare the minor)

Select one course from the following:

AP Environmental Science, Passing Score of 3, 4, or 5

ENV DES 1 Introduction to Environmental Design

LD ARCH 1 Drawing a Green Future: Fundamentals of Visual Representation and Creativity

LD ARCH 12 Environmental Science for Sustainable Development

### Upper Division (Five Courses)

Select five courses from the following; a minimum of two courses must be selected from CED courses and a minimum of two courses selected from non-CED courses

#### CED Courses

ARCH 105 Deep Green Design

ARCH 140 Energy and Environment

ARCH 149 Special Topics in Energy and Environment <sup>1</sup>

ARCH 169 Special Topics in Construction Materials <sup>1</sup>

ARCH 240 Advanced Study of Energy and Environment

ARCH 241 Research Methods in Building Sciences

ARCH 242 Sustainability Colloquium <sup>2</sup>

ARCH 243	Natural Cooling: Sustainable Design for a Warming Planet	ESPM 166	Natural Resource Policy and Indigenous Peoples
ARCH 244	The Secret Life of Buildings	ESPM C167	Environmental Health and Development
ARCH 245	Daylighting	ESPM 168	Political Ecology
ARCH 249	Special Topics in the Physical Environment in Buildings <sup>1</sup>	ESPM 169	International Environmental Politics
CY PLAN 114	Introduction to Urban and Regional Transportation	ESPM C193A	Environmental Education
CY PLAN 115	Urbanization in Developing Countries	GEOG 130	Food and the Environment
CY PLAN 140	Urban Design: City-Building and Place-Making	GEOG 138	Global Environmental Politics
CY PLAN 254	Sustainable Communities <sup>4</sup>	IND ENG 185	Challenge Lab (Smart Cities in India)
CY PLAN C256	Healthy Cities <sup>4</sup>	INTEGBI 152	Environmental Toxicology
ENV DES 102	Critical Debates in Sustainable Urbanism	PUB POL 182	Environment and Technology from the Policy and Business Perspective
ENV DES 198	Directed Group Study (Building Sustainability section and Leadership in Sustainable Design section) <sup>2</sup>		
LD ARCH 103	Energy, Fantasy, and Form		
LD ARCH 110	Ecological Analysis		
LD ARCH 111	Plants in Design		
LD ARCH 122	Hydrology for Planners		
LD ARCH 130	Sustainable Landscapes and Cities		
LD ARCH 138A	Course Not Available		
LD ARCH C18	Geographic Information Systems		
LD ARCH 225	Course Not Available		
<b>Non-CED Courses</b>			
ANTHRO 137	Energy, Culture and Social Organization		
CIV ENG 103	Introduction to Hydrology		
CIV ENG 107	Climate Change Mitigation		
CIV ENG 113N	Course Not Available		
CIV ENG 292A	Technologies for Sustainable Societies <sup>3</sup>		
ENE,RES C10	Energy and Society		
ENE,RES 101	Ecology and Society		
ENE,RES 102	Quantitative Aspects of Global Environmental Problems		
ENE,RES 175	Water and Development		
ENE,RES 190	Seminar in Energy and Resources Issues ("Behavior and Sustainability" or "California Water and Society")		
ENVECON 100	Microeconomic Theory with Application to Natural Resources		
ENVECON C1	Environmental Economics		
ENVECON C10	Natural Resource Economics		
ENVECON 162	Economics of Water Resources		
ENVECON C17	The Economics of Climate Change		
ENV SCI 125	Environments of the San Francisco Bay Area		
ESPM 102C	Resource Management		
ESPM 102D	Climate and Energy Policy (Behavior and Sustainability )		
ESPM 117	Urban Garden Ecosystems		
ESPM 137	Landscape Ecology		
ESPM 151	Society, Environment, and Culture		
ESPM 155	Course Not Available		
ESPM 161	Environmental Philosophy and Ethics		
ESPM 163AC	Environmental Justice: Race, Class, Equity, and the Environment		

<sup>1</sup> Special topics courses will be evaluated each semester by student request. Please ask the relevant staff adviser if a course has been reviewed and/or approved. ARCH 149, ARCH 169, and ARCH 249 should be minimum 2 units.

<sup>2</sup> The ARCH 242 colloquium and ENV DES 198 may only count as a third CED course, and may be taken *Pass/No Pass* for either 1 or 2 units.

<sup>3</sup> CIV ENG 292A may only count as a third non-CED course.

<sup>4</sup> Only with instructor approval for students in their senior year.