

# 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.

Students interested in pursuing this course of study at the major level should consider the Sustainable Environmental Design (<http://guide.berkeley.edu/undergraduate/degree-programs/sustainable-environmental-design/>) 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/>).

## 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/>), Sustainable Environmental Design Major (<https://ced.berkeley.edu/academics/bachelor-of-arts-in-sustainable-environmental-design/>), Sustainable Design Minor (<https://ced.berkeley.edu/academics/additional-programs/sustainable-design/>)

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://docs.google.com/forms/d/e/1FAIpQLSdKvmLo\\_E4kJnq\\_V2Jrku9-2aWEir9b6Js0PzK7PDp6dReAOg/viewform/](https://docs.google.com/forms/d/e/1FAIpQLSdKvmLo_E4kJnq_V2Jrku9-2aWEir9b6Js0PzK7PDp6dReAOg/viewform/)), available on the CED website.

## General Guidelines

- All minors must be declared no later than one semester before a student's Expected Graduation Term (EGT).
- 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.
- Each course used to fulfill minor requirements must be completed with a letter grade of C- or above.
- Students must earn a 2.0 GPA in the upper division requirements for the minor.
- Any course used in fulfillment of minor requirements may also be used to fulfill major and upper division CED non-major requirements.
- Courses used to fulfill a breadth requirement may also be used to satisfy minor requirements.
- Students may apply the non-CED version of a CED cross-listed course towards the minor.
- 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 [3]

LD ARCH 1 Drawing a Green Future: Fundamentals of Visual Representation and Creativity [4]

LD ARCH 12 Environmental Science for Sustainable Development [4]

**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 124A 3-D Computer Technology [2]

ARCH 140 Energy and Environment [4]

ARCH 149 Special Topics in Energy and Environment [1-4] <sup>1</sup>

ARCH 169 Special Topics in Construction Materials [1-4] <sup>1</sup>

ARCH 240 Advanced Study of Energy and Environment [3]

ARCH 241 Research Methods in Building Sciences [3]

ARCH 242 Sustainability Colloquium [2] <sup>2</sup>  
or ARCH 14: Sustainability Colloquium

ARCH 249 Special Topics in the Physical Environment in Buildings [1-4] <sup>1</sup>

CY PLAN 114 Introduction to Urban and Regional Transportation [3]

CY PLAN 115 Urbanization in Developing Countries [4]

CY PLAN 119 Planning for Sustainability [3]

CY PLAN 140 Urban Design: City-Building and Place-Making [3]

CY PLAN 254 Sustainable Communities [3] <sup>4</sup>

CY PLAN C256 Healthy Cities [3] <sup>4</sup>

ENV DES 102 Climate Change and City Planning: Adaptation and Resilience [3]

ENV DES 104 Design Frameworks [3]

LD ARCH 103 Energy, Fantasy, and Form [5]

LD ARCH 110 Ecological Analysis [3]

LD ARCH 111 Plants in Design [3]

LD ARCH 122 Hydrology for Planners [4]

LD ARCH 130 Sustainable Landscapes and Cities [4]

LD ARCH 140 Social and Psychological Factors in Open Space Design [3]

LD ARCH C18 Geographic Information Systems [4]

### Non-CED Courses

ANTHRO 137 Energy, Culture and Social Organization [4]

CIV ENG 103 Introduction to Hydrology [3]

CIV ENG 107 Climate Change Mitigation [3]

CIV ENG 113	Ecological Engineering for Water Quality Improvement [3]
CIV ENG 292A	Technologies for Sustainable Societies [1] <sup>3</sup>
ENVECON 100	Microeconomic Theory with Application to Natural Resources [4]
ENVECON C1	Environmental Economics [4]
ENVECON C10	Natural Resource Economics [4]
ENVECON 162	Economics of Water Resources [3]
ENVECON C17	Climate Change Economics [4]
ENVECON C18	Forest Ecosystem Management [4]
ESPM 102C	Resource Management [4]
ESPM 102D	Climate and Energy Policy [4] (Behavior and Sustainability )
ESPM 117	Urban Garden Ecosystems [4]
ESPM 134	Fire, Insects, and Diseases in Forest Ecosystems [3]
ESPM 137	Landscape Ecology [3]
ESPM 151	Society, Environment, and Culture [4]
ESPM 155AC	Sociology and Political Ecology of Agro-Food Systems [4]
ESPM 161	Environmental Philosophy and Ethics [4]
ESPM 162	Bioethics and Society [4]
ESPM 163AC	Environmental Justice: Race, Class, Equity, and the Environment [4]
ESPM C167	Environmental Health and Development [4]
ESPM 168	Political Ecology [4]
ESPM 169	International Environmental Politics [4]
ESPM 177A	Sustainable Water and Food Security [4]
ESPM 183	Forest Ecosystem Management and Planning [4]
ESPM 186	Management and Conservation of Rangeland Ecosystems [4]
GEOG 130	Food and the Environment [4]
GEOG 138	Global Environmental Politics [4]
GEOG 160	American Landscapes: History, Culture, and the Built Environment [4]
GEOG 185	Earth System Remote Sensing [3]
GEOG 186	Web Cartography [5]
IND ENG 185	Challenge Lab [4] (Smart Cities in India)
PB HLTH C160	Environmental Health and Development [4]

- <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 must be minimum 2 units.
- <sup>2</sup> The ARCH 142/ 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.

## Courses

Expand all course descriptions [+]Collapse all course descriptions [-]

No courses found for AGR CHM