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://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 [3]
- 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 140 Energy and Environment [4]
- ARCH 149 Special Topics in Energy and Environment [1-4] ¹
- ARCH 169 Special Topics in Construction Materials [1-4] ¹
- ARCH 241 Research Methods in Building Sciences [3]
- ARCH 242 Sustainability Colloquium [2] ²
- ARCH 142 Sustainability Colloquium
- ARCH 243 Natural Cooling: Sustainable Design for a Warming Planet [3]
- ARCH 244 The Secret Life of Buildings [3]
- ARCH 245 Daylighting [3]
- ARCH 249 Special Topics in the Physical Environment in Buildings [1-4] ¹
- 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] ⁴
- CY PLAN C256 Healthy Cities [3] ⁴
- ENV DES 102 Critical Debates in Sustainable Urbanism [3]
- ENV DES 104 Design Frameworks [3]
- ENV DES 198 Directed Group Study [2-4] (Building Sustainability section and Leadership in Sustainable Design section) ²
- 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 [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]
Courses

Expand all course descriptions [+]

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] ³
ENE,RES C100  Energy and Society [4]
ENE,RES 101  Ecology and Society [3]
ENE,RES 102  Quantitative Aspects of Global Environmental Problems [4]
ENE,RES 175  Water and Development [4]
ENE,RES 190  Seminar in Energy and Resources Issues [3]
(“Behavior and Sustainability” or “California Water and Society”)
ENVECON 100  Microeconomic Theory with Application to Natural Resources [4]
ENVECON C141  Environmental Economics [4]
ENVECON 162  Economics of Water Resources [3]
ENVECON C141  The Economics of Climate Change [4]
ENV SCI 125  Course Not Available [3]
ESPM 102C  Resource Management [4]
ESPM 102D  Climate and Energy Policy [3] (Behavior and Sustainability)
ESPM 117  Urban Garden Ecosystems [4]
ESPM 137  Landscape Ecology [3]
ESPM 151  Society, Environment, and Culture [4]
ESPM 161  Environmental Philosophy and Ethics [4]
ESPM 163AC  Environmental Justice: Race, Class, Equity, and the Environment [4]
ESPM 166  Natural Resource Policy and Indigenous Peoples [4]
ESPM C167  Environmental Health and Development [4]
ESPM 168  Political Ecology [4]
ESPM 169  International Environmental Politics [4]
ESPM C193A  Environmental Education [3]
GEOG 130  Food and the Environment [4]
GEOG 138  Global Environmental Politics [4]
IND ENG 185  Challenge Lab [4] (Smart Cities in India)
INTEGBI 152  Environmental Toxicology [4]
PUB POL 182  Environment and Technology from the Policy and Business Perspective [4]

¹ 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.
² 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.
³ CIV ENG 292A may only count as a third non-CED course.
⁴ Only with instructor approval for students in their senior year.

Courses