

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 offered by the Institute of Urban and Regional Development, the hub for interdisciplinary research at the College of Environmental Design. 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 Minor Declaration Form (<https://ced.berkeley.edu/advising/undergraduate-advising/undergraduate-students/major-minor-requirements/>), available on the CED website. Once this request has been approved, you will see the minor added to your Cal Central student profile. It is your responsibility to track your progress towards minor completion using the Academic Progress Report and CED Advising Services.

DEADLINE TO SUBMIT FORM: One semester prior to a student's final semester.

General Information

Websites: Institute of Urban and Regional Development (<https://ced.berkeley.edu/iurd/>), 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.

General Guidelines

1. All minors must be declared no later than one semester before a student's Expected Graduation Term (EGT).
2. 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 Minor Declaration Form (<https://ced.berkeley.edu/advising/undergraduate-advising/undergraduate-students/major-minor-requirements/>), available on the CED website.
 - a. **DEADLINE TO SUBMIT FORM:** One semester prior to a student's final semester.
3. Each course used to fulfill minor requirements must be completed with a letter grade of C- or above.
4. Students must earn a 2.0 GPA in the upper division requirements for the minor.
5. Any course used in fulfillment of minor requirements may also be used to fulfill major and upper division CED non-major requirements.
6. Courses used to fulfill a breadth requirement may also be used to satisfy minor requirements.

7. Students may apply the non-CED version of a CED cross-listed course towards the minor.
8. 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 Introduction to Digital Design Methods [2]

ARCH 140 Energy and Environment [4]

ARCH 149 Special Topics in Energy and Environment [2-4] ¹

ARCH 169 Special Topics in Construction Materials [2-4] ¹

ARCH 240 Advanced Study of Energy and Environment [3]

ARCH 241 Research Methods in Building Sciences [3]

ARCH 242 Sustainability Colloquium [2] ²
or ARCH 14: Sustainability Colloquium

ARCH 249 Special Topics in the Physical Environment in Buildings [2-4] 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 [4]

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 Climate Change and City Planning: Adaptation and Resilience [3]

ENV DES 131 The Community Design Process [3]

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

LD ARCH/ESPM C110A Ecological Analysis [4] (formerly LD ARCH 110)

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 Science [4]

LD ARCH 191 Course Not Available (Sustainable Cities of Northern Europe, UC Davis Study Abroad)

Non-CED Courses

ANTHRO 137 Energy, Culture and Social Organization [4]

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| CIV ENG 103 | Course Not Available [3] |
| CIV ENG C103 | Terrestrial Hydrology [4] (cross-listed w/ ESPM C130 and GEOG C136) |
| CIV ENG 107 | Climate Change Mitigation [3] |
| CIV ENG 108 | Climate Change Adaptation [3] |
| CIV ENG 113 | Ecological Engineering for Water Quality Improvement [3] |
| CIV ENG 170A | Infrastructure Sensing and Modeling [3] |
| CIV ENG 292A | Technologies for Sustainable Societies [1] ³ |
| ENE,RES C100 | Energy and Society [4] (cross-listed w/ PUB POL C184) |
| ENE,RES W10 | Energy and Society [4] |
| ENE,RES 131 | Data, Environment and Society [4] |
| ENE,RES C160/ ESPM C176 | CLIMATE JUSTICE [4] |
| ENVECON 100 | Intermediate Microeconomics with Applications to Sustainability [4] |
| ENVECON C101/ ECON C125 | Environmental Economics [4] |
| ENVECON/ ECON C102 | Natural Resource Economics [4] |
| ENVECON 162 | Economics of Water Resources [3] |
| ENVECON C176 | Climate Change Economics [4] |
| ENVECON C184 | 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 136 | Sustainable Industry [4] |
| 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 | Grassland and Woodland Management and Conservation [4] |
| GEOG 130 | Food and the Environment [4] |
| GEOG 138 | Global Environmental Politics [4] |
| GEOG C160 | The American Landscape: Place, Power and Culture [4] |
| GEOG 181 | Urban Field Study [4] |
| GEOG 185 | Earth System Remote Sensing [3] |

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| GEOG 186 | Web Cartography [5] |
| IAS/ ENVECON C175 | The Economics of Climate Change [4] |
| NWMEDIA 132 | How to Build a Global Internet: Digital Infrastructure Projects from Subsea Cables to Data Centers [3] |
| PB HLTH 101 | A Sustainable World: Challenges and Opportunities [3] |
| PB HLTH C160 | Environmental Health and Development [4] |
| ESPM173(UC Davis) | Sustainable Cities of Northern Europe, UC Davis Study Abroad |

- 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 must be minimum 2 units.
- ² 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.
- 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

No courses found for AGR CHM