UC Davis Minor in Sustainability in the Built Environment (ESBE)

Offered by the Department of Civil and Environmental Engineering
2045 Ghausi Hall ♦ (530) 752-3425

The built environmental plays an integral role in meeting society's most basic needs of shelter, security, mobility, community, and water and waste treatment, but it also contributes significantly to the sustainability challenges of climate change, pollution, resource consumption, and land use. As society and government policy increase pressure to reduce the environmental impacts of our everyday activities, individuals must increasingly understand how the built environment they design and maintain fits into the complex environmental and human system in which we live.

This minor provides a guiding framework for educating individuals who will design and maintain our future built environment in the challenges and potential solutions for improved sustainability.

The minor is designed to attract students from a range of departments and programs across campus, including, but not limited to, Environmental Science and Policy, Urban Planning, Plant Sciences, Landscape Architecture, Design, Engineering, Community and Regional Development, Anthropology, Agriculture and Resource Economics, Atmospheric Science, Environmental Remote Sensing, Environmental Toxicology, Applied Biological Systems Technology, Geology, Hydrology, and Nature and Culture. Students enrolled in the minor will acquire fundamental skills and knowledge of the elements and integrated processes necessary for a sustainable built environment.

Students must take two required courses; *Urban Systems and Sustainability* (ECI 123) and *Green Engineering Design and Sustainability* (ECI 143)

You are permitted to overlap one course between this minor and your major.

Transcript notation must be requested no later than the quarter preceding graduation, and will appear as a minor in **Sustainability in the Built Environment.**

Successful completion and transcript notation of the minor requires both a minimum overall UC GPA of 2.0 and a minimum 2.0 GPA for the coursework completed for the minor, with no grade lower than a C- for any course used for the minor.

Please contact the Undergraduate Advisers in the Department of Civil & Environmental Engineering, for more information: civiladvising@ucdavis.edu, (530)752-3425, 2045 Ghausi Hall.

Minor Program in Sustainability in the Built Environment

Total units for the minor: 20 units. All courses must be taken for a letter grade. No grade lower than a C- will be accepted

Minor Advisors: Frank Loge (Civil & Environmental Engineering), Alissa Kendall (Civil & Environmental Engineering)

Two required courses (8 units):

Dept	Course #	Title	Units	Prerequisites/Enrollment Restrictions
ECI	123	Urban Systems and Sustainability	4	Upper division standing
ECI	143	Green Engineering Design & Sustainability	4	Upper division standing; Pass 1 ECIV majors only

At least 12 units of courses from the following list:

Dept	Course #	Title	Units	Prerequisites/Enrollment Restrictions
ECI	125	Building Energy Performance	4	Upper division standing in Engineering
ECI	126	Green Planning	4	PHY 9C or LDA 60 or DES 145 or ESP 100 or NAC 120; consent of instructor
ECI	127	Green Design	4	ECI 126
ECI	128	Green Construction	4	ECI 127
ECI	148A	Water Quality Management	4	CHE 2B w/ C- or better
ECI	149	Air Pollution	4	MAT 21D & 22B; CHE 2B, ATM 121A or ENG 103 both w/ C- or better
ECI	155	Water Resources Engineering Planning	4	ENG 106 or ECN 1A; ECI 114 or STA 103
ECI	162	Transportation System Design	4	ECI 161 or ECI 163 w/ C- or better in either
ECI	165	Transportation Policy	3	
ENG	188	Sci. Tech. Sustainable Power Generation	4	Upper division standing, PHY 7C or 9C
ANT/ESP	101	Ecology, Nature and Society	4	ANT 1 or ANT2, or ESP 30, or EVE 100, or BIS 101
ANT	104N	Cultural Politics of the Environment	4	ANT 2 or consent of instructor
ARE	175	Natural Resource Economics	4	ARE 100B or ECN 100 or equivalent
ARE	176	Environmental Economics	4	ARE 100B or ECN 100
ATM	116	Climate Change	3	UWP 1 or eqv.; consent of instructor
CRD	142	Rural Change in the Industrialized World	4	CRD 1
CRD	154	Social Theory and Community Change	4	CRD 1 or SOC 1 or ANT 2
CRD	172	Social Inequality: Issues and Innovations	4	Upper division standing; 8 units of SOC or ANT (or combination).
ESP	161	Environmental Law	4	Upper division standing; One course in environmental science; POL 1 and UWP 1 recommended.
ESP	162	Environmental Policy	4	ECN 1A
ESP	171	Urban and Regional Planning	4	ESP 1; a course in SocSci and ENV Sci
ETX	101	Principles of Environmental Toxicology	4	CHE 8B, CHE 118B, CHE 128B, and BIS 2A
ETX	102A	Environmental Fate of Toxicants	4	CHE 8B, CHE 118B, CHE 128B, or consent
GEL	130	Non-Renewable Natural Resources	3	GEL 1
GEL	134	Environmental Geology and Land Use Planning	3	One course in GEL
LDA	180*	Series: Special Topics in Landscape Architecture	2	
PLS	101	Agriculture and the Environment	3	PLS 2 or consent
PLS	141	Ethnobotany	4	PLS 2, BIS 2C
PLS	150	Sustainability and Agroecosystem Management	4	SOS 10, CHE 2A, PLS 2, BIS 2C
PLS	162	Urban Ecology	3	Course in general or plant ecology

May include the following lower division course (4 units):

Dept	Course #	Title	Units	Prerequisites
LDA	003	Sustainable Development: Theory and Practice	4	

**Due to variability in series course offerings, consent of minor advisor is required*