

ENVIRONMENTAL DESIGN - BACHELOR OF ENVIRONMENTAL DESIGN (BENV D)

Program Overview

Structure of the Undergraduate Curriculum

The Bachelor of Environmental Design curriculum is comprised of a shared core (lasting three semesters) followed by five semesters of coursework focused on one of four majors: architecture, landscape architecture, sustainable planning and urban design, and environmental product of design.

The shared core provides an intensive and balanced introduction to the traditional professions contained within the broad field of environmental design. The core provides students the information and flexibility to hone their career direction and major area. It allows opportunities for hands-on problem solving that features eight-week design studios as the primary teaching pedagogy. Anchored through a combination of lecture courses and studio instruction, the core curriculum builds upon studios where students solve design problems at three important scales of the built environment: buildings, landscapes and urban systems.

The major coursework in the final five semesters allows students to pursue in-depth projects and gain more specialized skills necessary for entering the design fields or further graduate study. Students can also pursue approved education abroad options as part of the curriculum as well. The final academic year culminates into capstone requirements for the chosen major.

Educational Advantages of the BEnvD

The Program in Environmental Design provides a balanced introduction to environmental design. ENVD's emphasis on both the breadth and depth of design allows students to gain the appreciation, information, skills and experiences needed to make an informed decision about their career direction.

For the past 50 years, ENVD has retained a focus on studio instruction in small class sizes. From a student's first semester, they learn to work both in small groups and individually to solve design problems. Unlike most majors across the university, by the end of a student's first year, the small classes and unique teaching relationships will build relationships with several faculty and a cohort of their peers.

ENVD's curriculum stresses both critical thinking and applied project work. Experiential learning is a core component of design education with students engaging in hands-on activities. Student satisfaction within higher education has been directly linked to teaching that incorporates projects where small student groups work together to solve problems that they know are important.

The pedagogy of the program celebrates an interdisciplinary culture for both students and faculty. Mirroring emerging workplace trends in industry, students work within teams. Sometimes students work within multi-disciplinary teams where each profession shares its expertise and coordinates with others and sometimes within inter-disciplinary teams where the separate expertise is not as important as the ability to mutually and collaboratively define and solve a problem. Increasingly, in

environmental design, at the end of each project, the list of participants is as long as the endless list of credits we watch at the end of a motion picture.

Education Abroad

The Program in Environmental Design has, in partnership with the office of Education Abroad, developed an exciting selection of study abroad options. Studying abroad gives students an array of unique experiences, and it can often make students more competitive for graduate study and for employment. Summer programs and faculty-led programs (global seminars and global intensives) are available to students at various stages of their academic coursework. Full-semester programs are available to students starting in their third year. The study abroad program provides an academically challenging experience with extensive local support.

Education Abroad course offerings are open to students of all ENVD majors—architecture, environmental product design, landscape architecture and sustainable planning and urban design. Students may pursue studio courses as well as other electives. These courses offer students an opportunity to study in another culture and to examine their own perceptions and attitudes toward design. Environmental design programs, of varying lengths, are currently offered in Auckland, Berlin, Barcelona, Copenhagen, Dublin, Edinburgh, London, Medellin, Rome, Sydney and Wellington.

Students can find out more about these options through the Ed Abroad ENVD major guide. In addition, the Office of Education Abroad offers more programs with courses appropriate to design students. Programs outside of the pre-approved listing may be considered for approval. Please meet with an ENVD academic advisor for details.

For more information about the study abroad programs, contact:

Education Abroad (Located in C4C S355)
Advisors available via walk-in or appointment
abroad@colorado.edu
303-492-7741

Required Courses and Credits

The curriculum for the Bachelor of Environmental Design (BEnvD) is subdivided into two parts:

1. The first part consists of a core lasting one-and-a-half years which provides a balanced introduction to each of the majors offered. By the end of the core studies, students select or confirm their intended major.
2. The second part is focused on a selected major. Studies lead to the degree Bachelor of Environmental Design (BEnvD) with a major in either environmental product of design, architecture, landscape architecture and sustainable planning and urban design. Each area has specific requirements for completing the major.

Credit Hours

Students must complete a minimum of 120 credit hours subject to the maximum outlined in this catalog, meet all specified university general education requirements, all major core requirements and maintain a GPA of 2.00 or better. Students must complete courses with a grade of C- or better to fulfill university and degree requirements.

Students in the Program in Environmental Design are required to complete coursework meeting General Education requirements; each major may have differing totals. Students who take approved CU Boulder coursework to fulfill their General Education requirements must take those courses for a letter grade and receive a grade of C- or higher. Students may not use thesis hours, independent study, internship or practicum courses to fill any of the General Education requirements. All courses approved to fulfill specific General Education requirements are identified as such in this catalog and are searchable in CU Boulder Class Search.

Code	Title	Credit Hours
Environmental Design core		37
Consists of a sequential core lasting one-and-a-half years which provides a balanced introduction to each of the majors offered. By the end of the core semester, students select or confirm their intended major.		
Environmental Design major		45
The second part of the sequential Environmental Design core is focused on a selected major, which leads to the degree Bachelor of Environmental Design (BEnvD) with a major in either architecture, landscape architecture, sustainable planning and urban design, or environmental product of design. Each major has specific requirements and culminates into capstone requirements to complete the major.		
Electives		
Total required to meet 120 credit hours, 18		
	<i>Environmental Design</i>	9
	<i>Non-Environmental Design electives</i>	9
General Education Requirements		
	<i>Lower-Division Writing requirement</i>	3
Choose one:		
ARSC 1150	Writing in Arts and Sciences	
ENVD 1150	First Year Writing for Environmental Design	
ENVS 1150	First-Year Writing in Energy, Environment and Sustainability	
WRTG 1100	Extended First-Year Writing and Rhetoric	
WRTG 1150	First-Year Writing and Rhetoric	
	<i>Upper-Division Writing requirement</i> ¹	3
	<i>Lower-Division Social Science requirement</i> ²	3
	<i>Lower-Division Arts & Humanities requirement</i> ³	3
	<i>Upper-Division Art and Humanities or Social Science requirement</i> ⁴	3
	<i>Math requirement</i>	4
Meet with Academic Advisor to determine requirement for specific major. Choose one:		
MATH 1150 & MATH 1151	Precalculus Mathematics and Precalculus Supplemental Lab	
MATH 1300	Calculus 1	
MATH 2510	Introduction to Statistics	
GEOG 3023	Statistics and Geographic Data	
SOCY 2061	Introduction to Social Statistics	
	<i>Natural Science requirement</i>	4
Meet with an Academic Advisor to determine requirements for specific major. Choose from the following:		

PHYS 1110	General Physics 1
PHYS 2010	General Physics 1
EBIO 1210 & EBIO 1230	General Biology 1 and General Biology Laboratory 1
EBIO 1220 & EBIO 1240	General Biology 2 and General Biology Laboratory 2
EBIO 3590	Plants and Society
CHEM 1113 & CHEM 1114	General Chemistry 1 and Laboratory in General Chemistry 1
GEOG 1001	Our Changing Planet: Climate and Vegetation
GEOG 1011	Our Changing Planet: Landscapes and Water
GEOL 1060 & GEOL 1030	Global Change: An Earth Science Perspective and Introduction to Geology Laboratory 1

Total Credit Hours **123**

- ¹ May be fulfilled by courses in Upper-Division Writing requirement list or ENVD 3150.
- ² May be fulfilled by courses in Lower-Division Social Science requirement list.
- ³ May be fulfilled by courses in Lower-Division Arts & Humanities requirement list.
- ⁴ May be fulfilled by 3000/4000-level courses in Upper-Division Art and Humanities (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf) or Social Science requirement lists.

Sample Four-Year Plans of Study

The first three semesters of the BEnvD curriculum are the core curriculum, which is prerequisite for each of the majors: Environmental Product of Design, Architecture, Landscape Architecture, and Sustainable Planning and Urban Design. There are corequisite ENVD core courses each semester and the core courses are typically sequential from semester to semester.

ENVD Core

First Year

Fall Semester		Credit Hours
ENVD 1010	Studio 1: Introduction to Environmental Products of Design	3
ENVD 1020	Studio 1: Introduction to Architecture	3
ENVD 1002	Technology 1: Applications for Environmental Design	2
ENVD 1004	Introduction to Environmental Design	3
ENVD 1976	Colloquium - Exploring Careers, Research and Practice	1
Lower-Division Writing requirement (choose one: ARSC 1150, ENVD 1150, ENVS 1150, WRTG 1100 or WRTG 1150)		3
Credit Hours		15

Spring Semester

ENVD 1030	Studio 1: Introduction to Landscape Architecture	3
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ENVD 1040	Studio 1: Introduction to Planning and Urban Design	3
ENVD 1012	Technology 2: Visual Communications	2
ENVD 1024	History of the Built Environment	3
Lower-Division Arts & Humanities requirement ¹		3
Credit Hours		14
Second Year		
Fall Semester		
Studio list (choose two of the following 3 credit courses)		6
ENVD 1110	Studio 2: Fundamentals of Environmental Products of Design	
ENVD 1120	Studio 2: Fundamentals of Architecture	
ENVD 1130	Studio 2: Fundamentals of Landscape Architecture	
ENVD 1140	Studio 2: Fundamentals of Planning and Urban Design	
ENVD 1022	Technology 3: Intermediate Applications for Environmental Design	2
ENVD 2003	Ecological Systems in Design	3
ENVD 2101	Context of Design: Planning and Implementation	3
Lower-Division Social Science requirement ²		3
Credit Hours		17
Total Credit Hours		46

¹ Arts and Humanities list.

² Social Science list (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-social_sciences_courses1.pdf).

Majors

Environmental Product of Design

The Environmental Product of Design (EPOD) major creates design leaders prepared to take on challenges facing humanity and our environment(s) through the rigorous development of design solutions. Students will implement a critical and hands-on design process that leverages design thinking, ethical consideration and speculative design in conjunction with rapid prototyping, experimentation, fabrication techniques and product development. EPOD majors graduate with creative confidence and a diverse problem-solving skillset poised to make innovative solutions towards improving our human, natural and built environments.

Second Year

Spring Semester		Credit Hours
EPOD 2100	Studio 1: Foundations of Environmental Products of Design	6
EPOD 2004	History and Theory of Environmental Products of Design	3
ENVD 2001	Human Behavior and Design	3
Math requirement (choose one: MATH 1150 & 1151 or MATH 1300, MATH 2510, SOCY 2061) Meet with an Academic Advisor suggested		4
Credit Hours		16

Third Year

Fall Semester

EPOD 3100	Studio 2: Intermediate Environmental Products of Design	6
EPOD 3101	Theory and Ethics in Design	3
Natural Science requirement (choose one pair: PHYS 1110, PHYS 2010, EBIO 1210 & EBIO 1230, or CHEM 1113 & CHEM 1114)		4
ENVD elective ⁵		3
Credit Hours		16

Spring Semester

Elective Studio (choose one: ENVD 3100*, EPOD 3100 or an approved Design study abroad)		6
EPOD 3105	Human Centered Design and Entrepreneurship Strategies	3
Upper-Division Writing requirement or ENVD 3150 ²		3
Elective		3
Credit Hours		15

Fourth Year

Fall Semester

Professional development requirement (complete application for advisor approval) ⁴		6
EPOD 4115	Materials and Manufacturing Processes in Product Design	3
Upper-Division Art and Humanities or Social Science requirement ³		3
Elective		3
Credit Hours		15

Spring Semester

EPOD 4100	Studio 3: Capstone in Environmental Products of Design	6
ENVD electives ⁵		6
Elective		3
Credit Hours		15
Total Credit Hours		77

¹ Arts and Humanities list (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf).

² Upper-Division Writing (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_skills-ud_written_communication_courses.pdf) or ENVD 3150

³ Upper-Division Humanities (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf) (3000/4000-level courses); Upper-Division Social Science (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-social_sciences_courses1.pdf) (3000/4000-level courses)

⁴ Application (https://cuboulder.qualtrics.com/jfe/form/SV_3myQkpi3QMKLwqN/) for professional development requirement

⁵ ENVD Elective list

* Students can enroll in an additional 3100 studio in their major to fulfill the elective studio requirement. Please meet with your advisor to address course options.

Architecture

The architecture major focuses on the design and development of the built environment. At ENVD, we encompass broad topics of sites, program, materiality, structural systems, modern technologies, human interconnectedness and social interaction. This specialty endeavors to teach our students to be responsible citizens and stewards of aesthetic, ethical, social, economic and environmental concerns.

Second Year

Spring Semester

		Credit Hours
ARCH 2100	Studio 1: Foundations of Architecture	6
ARCH 2115	Architecture Materials and Methods	3
ENVD 2001	Human Behavior and Design	3
Math requirement (choose one: MATH 1150 & 1151 or MATH 1300)		5
Credit Hours		17

Third Year

Fall Semester

ARCH 3100	Studio 2: Intermediate Architecture	6
ARCH 3114	History and Theory of Architecture 1	3
PHYS 2010	General Physics 1	5
ENVD Elective ⁵		3
Credit Hours		17

Spring Semester

Elective Studio (choose one: ENVD 3100*, ARCH 3100 or an approved Design study abroad)		6
ARCH 3214	History and Theory of Architecture 2	3
Upper-Division Writing or ENVD 3150 ²		3
Elective		3
Credit Hours		15

Fourth Year

Fall Semester

Professional development requirement (complete application for advisor approval) ⁴		6
ARCH 4115	Architecture Building Technology	3
Upper-Division Art and Humanities or Social Science requirement ³		3
ENVD elective ⁵		3
Credit Hours		15

Spring Semester

ARCH 4100	Studio 3: Capstone in Architecture	6
ENVD elective ⁵		3
Electives		6
Credit Hours		15
Total Credit Hours		79

¹ Arts and Humanities list (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf).

² Upper-Division Writing (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_skills-ud_written_communication_courses.pdf) or ENVD 3150

³ Upper-Division Humanities (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf) (3000/4000-level courses); Upper-Division Social Science (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-social_sciences_courses1.pdf) (3000/4000-level courses)

⁴ Application (https://cuboulder.qualtrics.com/jfe/form/SV_3myQkpi3QMKLwqN/) for professional development requirement

⁵ ENVD Electives list

* Students can enroll in an **additional** 3100 studio in their major to fulfill the elective studio requirement. Please meet with your advisor to address course options.

Landscape Architecture

The landscape architecture major teaches students to design environments in urban, rural and agricultural contexts at all scales. Students learn strategies to repair and strengthen ecological systems, create and restore habitats, manage stormwater, express cultural values, and support human health and well-being. This major encourages students to explore the cultural value of landscapes, to redefine how landscape architects can transform the urban fabric, and to design resilient, climate-responsive projects.

Second Year

Spring Semester

		Credit Hours
LAND 2100	Studio 1: Foundations of Landscape Architecture	6
LAND 2004	History of Landscape Architecture	3
ENVD 2001	Human Behavior and Design	3
MATH 1150 & 1151 or MATH 1300, MATH 2510, SOCY 2061)		3
Meet with Academic Advisor suggested		
Credit Hours		15

Third Year

Fall Semester

LAND 3100	Studio 2: Intermediate Landscape Architecture	6
LAND 3003	Site Planning, Materials, and Technologies	3
Natural Science requirement (choose one or one pair: ATOC 3600, CHEM 1011, CHEM 1113 & CHEM 1114, EBIO 1210 & EBIO 1230, EBIO 1220 & EBIO 1240, EBIO 3590, EBIO 4060, GEOG 1001, GEOG 1011, GEOL 1060, PHYS 1110 or PHYS 2010)		3
ENVD elective ⁴		3
Credit Hours		15

Spring Semester

Elective Studio (Choose one: ENVD 3100*, LAND 3100 or an approved Design study abroad)		6
Upper-Division Writing or ENVD 3150 ¹		3
ENVD elective ⁴		3
Elective		3
Credit Hours		15

Fourth Year

Fall Semester

Professional development requirement (complete application for advisor approval) ³		6
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LAND 3103	Ecological Planting Design	3
LAND 4114	Landscape Architecture Theory	3
Upper-Division Arts & Humanities or Social Science ²		3
Credit Hours		15
Spring Semester		
LAND 4100	Capstone in Landscape Architecture	6
ENVD elective ⁴		3
Electives		6
Credit Hours		15
Total Credit Hours		75

¹ Upper-Division Writing (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_skills-ud_written_communication_courses.pdf) or ENVD 3150

² Upper-Division Humanities (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf) (3000/4000-level courses); Upper-Division Social Science (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-social_sciences_courses1.pdf) (3000/4000-level courses)

³ Application (https://cuboulder.qualtrics.com/jfe/form/SV_3myQkpi3QMKLwqN/) for professional development requirement

⁴ ENVD Elective List

* Students can enroll in an **additional** 3100 studio in their major to fulfill the elective studio requirement. Please meet with your advisor to address course options.

Sustainable Planning and Urban Design

The sustainable planning and urban design major examines issues of sustainability and social justice in communities, cities and regions around the world. Heavily centered around community engagement, this major allows students to focus on a variety of topics, such as housing, environmental planning, transportation planning and urban design. Students examine these topics through a combination of design, policy and management perspectives.

Second Year

Spring Semester		Credit Hours
PLAN 2100	Studio 1: Foundations of Planning and Urban Design	6
PLAN 2004	History and Theory of Sustainable Planning and Design	3
ENVD 2001	Human Behavior and Design	3
Math requirement (choose one: MATH 1150 & 1151 or MATH 1300, MATH 2510, SOCY 2061) Meet with an Academic Advisor suggested		3
Credit Hours		15

Third Year

Fall Semester		Credit Hours
PLAN 3100	Studio 2: Intermediate Planning and Urban Design	6
PLAN 3005	Process and Practice	3

Natural Science requirement (choose one or one pair: ATOC 3600, CHEM 1011, CHEM 1113 & CHEM 1114, EBIO 1210 & EBIO 1230, EBIO 1220 & EBIO 1240, EBIO 3590, EBIO 4060, GEOG 1001, GEOG 1011, GEOL 1060, PHYS 1110 or PHYS 2010)		3
Design elective ¹		3
Credit Hours		15

Spring Semester

Elective Studio (choose one: ENVD 3100, PLAN 3100 or an approved Design study abroad) ²		6
PLAN 3102	Strategies and Techniques for Sustainable Planning and Design	3
Upper Division Writing requirement or ENVD 3150 ³		3
Elective		3
Credit Hours		15

Fourth Year

Fall Semester		Credit Hours
Professional development requirement (complete application for advisor approval) ⁴		6
PLAN 4101	Sustainable Futures Planning	3
Upper-Division Arts and Humanities or Social Science requirement ⁵		3
Elective		3
Credit Hours		15

Spring Semester

PLAN 4100	Capstone in Planning and Urban Design	6
Design electives ¹		6
Elective		3
Credit Hours		15
Total Credit Hours		75

¹ Design electives.

² Students can enroll in an **additional** 3100 studio in their major to fulfill the elective studio requirement. Students should meet with their advisor to address course options.

³ Upper-Division Writing (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_skills-ud_written_communication_courses.pdf) or ENVD 3150.

⁴ Application (https://cuboulder.qualtrics.com/jfe/form/SV_3myQkpi3QMKLwqN/) for professional development requirement.

⁵ Upper-Division Humanities (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-arts_humanities_courses_1.pdf) (3000/4000-level courses); Upper-Division Social Science (https://www.colorado.edu/artsandsciences/sites/default/files/attached-files/as_gen_ed_-_distribution-social_sciences_courses1.pdf) (3000/4000-level courses).

Dual Degree Program

BEnvD and a Degree in an Outside Major

In addition to the BEnvD degree, students may pursue a dual degree at CU Boulder. Past students have received the BEnvD degree concurrently with undergraduate degrees in one of the other colleges. Typically, specific course requirements do not change in either program of a dual degree. Additional credit hours (varying by college) may be required.

All undergraduate students must complete the general education requirements and the requirements for their specific major within the Program in Environmental Design in addition to the other requirements. Students considering a dual degree program are encouraged to speak with advisors in both units to determine requirements and procedures for application.