

# ENVIRONMENTAL PRODUCTS OF DESIGN - BACHELOR OF ENVIRONMENTAL DESIGN (BENV D)

The Environmental Products 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.

## 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 products 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 Department 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
<b>Environmental Design core</b>		<b>37</b>
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 semesters, students select or confirm their intended major.		
<b>Environmental Design major</b>		<b>54</b>

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 environmental products of design, architecture, landscape architecture, or sustainable planning and urban design. Each major has specific requirements and culminates into capstone requirements to complete the major.

### Environmental Design electives (9 credits)

#### General Education Requirements

*Lower-Division Writing requirement* 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

*Upper-Division Writing requirement* 3

*Lower-Division Social Science requirement* 3

*Lower-Division Arts & Humanities requirement* 3

*Upper-Division Art and Humanities or Social Science requirement* 3

*Math requirement* 3

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

*Natural Science requirement* 3

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

**Non-Environmental Design electives (6-9 credits) to meet 120 graduation credits.** 9

**Total Credit Hours** 121

<sup>1</sup> May be fulfilled by courses in Upper-Division Writing requirement list or ENVD 3150.

<sup>2</sup> May be fulfilled by courses in Lower-Division Social Science requirement list.

<sup>3</sup> May be fulfilled by courses in Lower-Division Arts & Humanities requirement list.

<sup>4</sup> May be fulfilled by 3000/4000-level courses in Upper-Division Art and Humanities 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 Products 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
<b>Credit Hours</b>		<b>15</b>

##### Spring Semester

ENVD 1030	Studio 1: Introduction to Landscape Architecture	3
ENVD 1040	Studio 1: Introduction to Sustainable 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 <sup>1</sup>		3
<b>Credit Hours</b>		<b>14</b>

#### Second Year

##### Fall Semester

ENVD 1110	Studio 2: Fundamentals of Environmental Design 1	3
ENVD 1120	Studio 2: Fundamentals of Design 2	3
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 <sup>2</sup>	3
<b>Credit Hours</b>	<b>17</b>
<b>Total Credit Hours</b>	<b>46</b>

#### 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
<b>Credit Hours</b>		<b>16</b>

#### 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
Elective		3
<b>Credit Hours</b>		<b>16</b>

##### Spring Semester

Professional development requirement (complete application for advisor approval) <sup>4</sup>		6
EPOD 3105	Human Centered Design and Entrepreneurship Strategies	3
Upper-Division Writing requirement or ENVD 3150 <sup>2</sup>		3
Design Elective <sup>5</sup>		3
<b>Credit Hours</b>		<b>15</b>

#### Fourth Year

##### Fall Semester

Elective Studio (choose one: ENVD 3100, EPOD 3100 or an approved Design study abroad) <sup>6</sup>		6
EPOD 4115	Materials and Manufacturing Processes in Product Design	3
Upper-Division Art and Humanities or Social Science requirement <sup>3</sup>		3
Design Elective <sup>5</sup>		3
<b>Credit Hours</b>		<b>15</b>

##### Spring Semester

EPOD 4100	Studio 3: Capstone in Environmental Products of Design	6
Design Electives <sup>5</sup>		3
Elective		3
<b>Credit Hours</b>		<b>12</b>
<b>Total Credit Hours</b>		<b>74</b>

<sup>2</sup> Upper-Division Writing or ENVD 3150

<sup>3</sup> Upper-Division Humanities (3000/4000-level courses); Upper-Division Social Science (3000/4000-level courses)

- <sup>4</sup> Application ([https://cuboulder.qualtrics.com/jfe/form/SV\\_3myQkpi3QMKLwqN/](https://cuboulder.qualtrics.com/jfe/form/SV_3myQkpi3QMKLwqN/)) for professional development requirement
- <sup>5</sup> ENVD Elective list
- <sup>6</sup> 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.

## Learning Outcomes

By the completion of the program, students will be able to:

- Use creative, critical and convergent thinking to address social and environmental issues, analyzing the need for and impact of design solutions by examining precedents, applying theoretical knowledge, conducting research and using problem-defining techniques.
- Develop conceptual or material solutions to socio-environmental issues through iterative design processes, synthesizing critical feedback and collaborative findings with peers and communities they engage with.
- Employ graphic, verbal, written, spatial and other communication strategies to organize, demonstrate and effectively argue for their design concepts and proposals.
- Apply principles of social and environmental justice in their work. They will prioritize design stewardship and sustainability to ensure the health, safety and welfare of all project constituents.
- Demonstrate foundational technical skills and apply methodologies essential for entering academic and professional disciplines in environmental design.