

# ECOLOGICAL DESIGN CERTIFICATE (ECD) – APPLICATION

APPLICANT please type or print  
Mr \_\_\_\_\_  
Ms \_\_\_\_\_  
Last name First Middle

STUDENT NUMBER \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ If you do not have a Student Number number, check here \_\_\_\_\_.

CURRENT MAILING ADDRESS \_\_\_\_\_  
\_\_\_\_\_ Phone ( ) \_\_\_\_\_

EMAIL \_\_\_\_\_

PERMANENT ADDRESS \_\_\_\_\_  
\_\_\_\_\_ Phone ( ) \_\_\_\_\_

CURRENT UO STATUS Current Major: \_\_\_\_\_

PREVIOUS DEGREE \_\_\_\_\_  
Degree School Date of Degree

RELATED COURSEWORK What courses have you taken that are related to ecological design?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPLICATION REQUIREMENTS Applicants must complete this application form and also submit the following:  
1. A letter of application that states your interests in ecological design  
2. A resume

CURRICULAR REQUIREMENTS The Ecological Design Certificate requires a minimum of 24 credits in residence, of which a maximum of 12 can be completed as part one's master degree program (see "Program Requirements")

ACADEMIC RECORDS It is your responsibility to develop a "Working Study Plan" that must be approved by the Certificate faculty advisor and your advisor in your home department.

SIGNATURE \_\_\_\_\_  
signature of applicant date

**ECOLOGICAL DESIGN CERTIFICATE APPLICATION** For information contact:  
Academic Advisor, School of Architecture and Environment  
archadvisor@uoregon.edu

Brook Muller, Director, Ecological Design Certificate  
School of Architecture and Environment  
bmuller@uoregon.edu

# ECOLOGICAL DESIGN CERTIFICATE (ECD)

## PROGRAM OVERVIEW

The Ecological Design Certificate is a design-based, interdisciplinary program focused on the development of a practical framework for the integration of the built environment with locale and region specific natural and cultural systems. It is available to all graduate students within the School of Architecture and Allied Arts. Participating students are challenged to develop an in-depth understanding of the relationships between ecological processes, issues of social sustainability, and urban development and form, as well as how allied design and planning disciplines approach these relationships. Students will acquire a theoretical and pragmatic basis to carry these understandings into the world of practice.

The School of Architecture and Allied Arts at the University of Oregon has a national reputation as a leader in ecologically sensitive design. The Ecological Design Certificate Program provides explicit curricular structure in this area, encouraging students to develop an ecologically based design awareness, solidifying the commitment of the University to interdisciplinary inquiry, and upholding its capacity for leadership in the field.

## LEARNING OUTCOMES

Students completing the Ecological Design Certificate will:

- Have an understanding of building traditions in the United States and how inherited ways of designing and constructing the built environment, and our ability to restore and retain built infrastructure, relate to imperatives of sustainability (see Foundation course AAAP 510: American Architecture From a Preservation Perspective)
- Have an understanding of how buildings, neighborhoods and urban environments behave as complex systems that are linked to, influence, and are influenced by surroundings ecological and cultural conditions (see Foundation course ARCH 530: Architectural Context: Place and Culture)
- Have an understanding of basic principles of ecology (and in particular landscape ecology, the most spatially-oriented sub-discipline of ecology), and how these principles can be incorporated effectively in design and planning processes (see Foundation course LA 541: Principles of Applied Ecology and LA 517: Analyzing Land Systems)
- Have an understanding of an integrated, collaborative approach to the design and planning of urban environments; one that accounts for transportation efficiency, energy use, water quality and conservation, design quality and affordability, and functioning natural systems (see Foundation course PPPM 542: Sustainable Urban Development and PPPM 545: Green Cities)

## APPLYING TO THE PROGRAM AND DEVELOPING A STUDY PLAN

In order to fulfill the obligations of this Program and receive a Certificate in Ecological Design you must:

- Apply to the program (see “Application”)
- Develop a “Study Plan” in consultation with the Certificate Director (see “Program Requirements”)
- Gain acceptance into the Program (the Certificate Director will send you a letter of acceptance; a copy of this letter will be forwarded to the Graduate School and to your home department)
- Work towards completion of the Program as described in your “Study Plan”
- At the time you submit an application to receive your master’s degree (no later than the second week of the term you anticipate graduating), you must also apply to the Graduate School to receive the Certificate.\* You will also need to provide the Certificate Director with a “Final Study Plan” that incorporates changes in course work from your initial “Study Plan.” The Director will review the “Final Study Plan.” If approved, the Director will forward the “Final Study Plan” to the Graduate School.

**\*Please note:** it is possible to apply for the Certificate prior to applying for the master’s degree. It is not possible, however, to apply for the Certificate after receiving your master’s degree.

## PROGRAM REQUIREMENTS

Students working toward the Ecological Design Certificate must complete a minimum of 24 credits in approved ecological design subject courses. Of these, 11-12 credits must come from the Foundation Course series: students must take three of Foundation Courses, and cannot include the Foundation Course from their home department to satisfy this requirement. 12-13 additional credits must be completed from the Approved Course Electives list. This series of electives is intended to provide a platform for a cohesive focus in ecological design. At least one elective course must be taken outside of the student's home department. (Note: a course in the foundation list that is not used as such and is outside the student's home department can be used as an elective)

Note: it may be necessary to complete pre-requisites to develop subject proficiency for approved electives.

Seminar topics and Experimental courses (507 and 510) may change and it is recognized that while some of the courses indicated as Electives below may not be offered every year, other relevant courses may be offered. The faculty advisor determines when a course not included in this proposal may be applied toward the completion of the certificate.

### FOUNDATION COURSES:

AAAP 510	American Arch From a Preservation Perspective (I, II, III)	4
AAAP 510	Sustainable Preservation	4
ARCH 530	Architectural Context: Place and Culture	4
LA 517	Analyzing Land Systems	4
LA 541	Principles of Applied Ecology	4
PPPM 542	Sustainable Urban Development	4
PPPM 545	Green Cities	4

### ELECTIVE COURSES:

AAA 508	HOPES Charrette	1
AAA 508	HOPES Conference	1
AAAP 510	Transportation and Preservation	3
AAAP 545	Preservation Economics	3
ARCH 507	High Performance Buildings & Landscapes	3
ARCH 510	Passive Heating and Cooling	3
ARCH 510	Studio Plus	1-2
ARCH 534	Vernacular Building	3
ARCH 538	Housing Prototypes	4
ARCH 593	Solar Heating	3
ARCH 594	Passive Cooling	3
ARCH 595	Daylighting	3
ARCH 597	Case Studies in Sustainable Design	3
ARCH 598	Energy Scheming	3
ARCH 620	Environmental Design Research	2-4
ARCH 633	History of Sustainable Architecture	4
BI 572	Community Ecology	4
BI 573	Quantitative Ecology	5
BI 574	Marine Ecology	5
BI 575	Freshwater Ecology	5
BI 576	Terrestrial Ecosystem Ecology	4
GEOG 523	Advanced Biogeography	4

GEOG 525	Hydrology and Water Issues	4
GEOG 530	Long-Term Environmental Change	4
GEOG 531	Vegetation History & Ecosystem Dynamics	4
GEOG 532	Climatological Aspects of Global Change	4
GEOG 561	Environmental Alteration	4
GEOG 562	Hist. & Contemp. Views of the Environment	4
GEOG 563	Geography, Law, & the Environment	4
ENVS 511	Environmental Issues	4
ENVS 520	Perspectives in Nature & Society	4
ENVS 535	Environmental Justice	4
ENVS 540	Environmental Aesthetics	4
ENVS 550	Political Ecology	4
ENVS 555	Sustainability	4
ENVS 565	Wetland Ecology and Management	4
LA 507	Place-Form-Identity	4
LA 508	Fire Ecology	4
LA 510	Courthouse Garden	4
LA 543	Land and Landscape	4
LA 565	Advanced Landscape Ecology	4
MGMT 610	Energy & Ecosystem Fin	3
MGMT 610	Industrial Ecology	3
MGMT 610	Life Cycle Analysis	4
PPPM 507	Water and the Urban Environment	4
PPPM 532	Urban Revitalization	4
PPPM 538	Transportation Issues in Planning	4
PPPM 543	Natural Resource Policy	4
PPPM 607	Sustainable Transportation	4
PPPM 611	Introduction to Planning Principles & Practice	4
PPPM 612	Legal Issues in Planning	4
PPPM 617	Human Settlements	4

# ECOLOGICAL DESIGN CERTIFICATE (ECD) – STUDY PLAN

---

				Check if to be used for masters	
1	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
2	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
3	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
4	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
5	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
6	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
7	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits
8	_____	_____	_____	[ ]	_____
	Course Number/Title	Term	Instructor		Credits

## PRELIMINARY STUDY PLAN APPROVED BY:

\_\_\_\_\_  
Academic Advisor, School of Architecture and Environment

\_\_\_\_\_  
Date approved

\_\_\_\_\_  
Director, Ecological Design Certificate

\_\_\_\_\_  
Date approved