

# ECOLOGICAL ARCHITECTURE, CERTIFICATE

The goal of the Certificate in Ecological Architecture is to enable students to critically engage in performance-based design, using innovative techniques and exploring new possibilities. It introduces students to the range of approaches in the required courses of the Certificate, and then allows them to pursue different emphases through a selection of elective courses. The use of design to achieve environmental health and well-being involves the acquisition of basic analytical skills and tools, a broad understanding of the dynamic interaction among the natural, technological, and cultural environments, and the study of techniques of immediate use to designers.

**For more information:** <https://www.design.upenn.edu/all-degrees-certificates/ecological-architecture-certificate> (<https://www.design.upenn.edu/all-degrees-certificates/ecological-architecture-certificate/>)

## Curriculum

A total of 5 course units are required to complete the Certificate program (2 course units of required courses and 3 course units of elective courses). At least one of the elective course units must be taken outside the student's home department. Dual-degree students are excluded from the requirement to take an elective outside their home department. Courses that fulfill a requirement in the student's main degree program may not be counted towards the certificate unless they are fulfilling an elective in the main degree program.

Code	Title	Course Units
<b>Required Courses</b>		
ARCH 7340	Ecological Architecture - Contemporary Practices	1
ARCH 7510	Ecology, Technology, and Design	1
<b>Elective Courses</b> <sup>1</sup>		
Select 3 course units from the following:		3
ARCH 7120	Topics in Architecture Theory II <sup>2</sup>	
ARCH 7320	Technology Designated Elective <sup>2</sup>	
ARCH 7530	Building Performance Simulation	
ARCH 7540	Performance Design Workshop	
CPLN 5310	Sustainability and Environmental Planning	
CPLN 6410	Progressive Development	
CPLN 6870	Topics in Historic Preservation	
CPLN 7300	Sustainable Cities	
EAS 5010	Energy and its Impacts: Technology, Environment, Economics, Sustainability.	
EAS 5020	Renewable Energy and Its Impacts: Technology, Environment, Economics, Sustainability.	
EAS 5030	Energy Systems and Policy	
EAS 5050	Climate Policy and Technology	
EAS 5060	Electricity and Systems Markets	
ENVS 6550	Life Cycle Assessment	
LARP 7600	Topics in Ecological Design	

LGST 8150 Environmental Management: Law and Policy

**Total Course Units** 5

<sup>1</sup> Alternative elective courses must be approved in writing by the director of the certificate program and submitted to the Weitzman School of Design Office of Student Services.

<sup>2</sup> Topics courses change each year, and students should check with the certificate director before registering for a topics course to ensure that it is appropriate for the certificate.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.