

# LIGHTING DESIGN - CERTIFICATE

Our sense of sight is responsible for much of our perception of the world around us. Through the proper application of light, whether indoors or outdoors, we can shape a viewer's understanding of architecture and influence the outcome of our architectural designs.

The undergraduate certificate in Lighting Design (<http://www.colorado.edu/lightingprogram/lighting-design-certificate/>) is offered to non-engineering students, in particular those majoring in environmental design, theater and film, to expose them to the basics of architectural interior, exterior and landscape lighting design. Topics include:

- Metrics of light
- Vision and color vision
- Proper use of light sources, lighting fixtures and controls
- Lighting effects on perception of architecture and how it fits into the architectural design process
- Lighting design techniques and specification
- Quantification of light to ensure visual comfort and limit energy use
- Light at night and its correct application in exterior architecture and landscape

The certificate prepares students for entry-level jobs in lighting design firms. A combination of lighting design with architecture, landscape architecture or design studies could also open doors in architecture and interior design firms.

## Requirements

### Admission Requirements

A cumulative GPA of 2.500 or higher is required to enroll. This certificate is not open to students rostered in the College of Engineering & Applied Science. First-year students are not eligible to take certificate courses - students may sign up for the certificate in the spring of their freshman year and start taking classes in their sophomore year.

To enroll, students should complete the Lighting Certificate Declaration Form (<http://bit.ly/LightingCertificate/>).

### Program Requirements

#### Grade Requirements

A cumulative GPA of 2.500 for all certificate courses is required. A grade of C or higher is required for AREN 4440 Lighting Design Capstone. For all other certificate courses, a grade of C- or higher is required. A course not passed with the minimum grade may be repeated one time.

#### Course Requirements

The certificate is achieved through completion of four lighting courses: two required courses, one technical elective, and a capstone course. Courses listed below represent current offerings and are subject to change.

Code	Title	Credit Hours
<b>Required Courses</b>		
AREN 3430	Architectural (Interior) Lighting Design	3

AREN 4540	Architectural Exterior and Landscape Lighting Design	3
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#### Technical Elective

Choose one: 3

AREN 4620	Adaptive Lighting Systems
AREN 4630	Advanced Lighting Design
THTR 3055	Stage Lighting Design 1

#### Capstone

AREN 4440	Lighting Design Capstone	3
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**Total Credit Hours** 12

## Learning Outcomes

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

- Demonstrate a mastery of the fundamentals of lighting.
- Design and analyze lighting solutions that address vision and perception, architecture and compliance.
- Communicate lighting solutions through effective use of lighting design tools and techniques.