



Course Description

IND2430 | Lighting Design | 3.00 credits

This course provides a survey of utilitarian interior lighting and exterior architectural lighting including fundamentals and basic physics laws, practical applications to interior and exterior spaces and lighting design considering different levels of space utilization and fixture efficiency. Prerequisite: IND1200

Course Competencies

Competency 1: The student will demonstrate understanding of fundamental lighting concepts by:

1. Analyzing basic physical laws governing light behavior
2. Explaining the principles of utilitarian interior lighting
3. Comparing and contrasting interior and exterior architectural lighting approaches
4. Evaluating the relationship between light and space utilization

Competency 2: The student will apply practical lighting design principles to interior spaces by:

1. Assessing lighting requirements for various interior environments
2. Designing lighting layouts that optimize space utilization
3. Calculating fixture efficiency and light output
4. Integrating natural and artificial light sources effectively
5. Proposing energy-efficient lighting solutions for different interior scenarios

Competency 3: The student will develop expertise in exterior architectural lighting by:

1. Analyzing the unique challenges of outdoor lighting design
2. Creating lighting plans that enhance architectural features
3. Implementing strategies to minimize light pollution and energy waste
4. Evaluating the impact of exterior lighting on surrounding environments
5. Designing functional and aesthetically pleasing exterior lighting schemes

Competency 4: The student will synthesize lighting design knowledge through practical applications by:

1. Conducting lighting audits of existing spaces
2. Developing comprehensive lighting design proposals
3. Presenting and defending lighting design concepts
4. Critiquing peer lighting designs using industry standards
5. Creating a portfolio showcasing a range of interior and exterior lighting projects

Learning Outcomes

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Demonstrate an appreciation for aesthetics and creative activities