Course Title: Lighting Concepts

Webpage: http://www.collin.edu/ce/courses/lighting_conceptsI.html

Course Description:
Fundamentals of lighting design, including lamps, luminaires, lighting techniques, and applications for residential and commercial projects. Provides basic understanding of vision as affected by light, color, texture, and form. Introduces basic principles of lighting design including criteria, calculations, planning, and layout.

Course Prerequisite(s):
None

Instructor Notes: Two field trips will be planned.

Student Outcomes:
1. Increase awareness of the application of lighting principles in interior design environments.
2. Research various types of architectural and decorative lighting sources.
3. Understand the impact of codes compliance, budget estimating, and project cost control methods.

Topics Covered:

• What is Lighting Design?
• The Lighting Design Process
• Specific Considerations
• Project Examples
• Create a Plan
• Defining the Project
• Opening Assessment
• Setting Goals
• Determining the Scope
• Meet the Owner Occupants, architects etc.
• Identify uses of space
• Identify physical challenges (height of the ceiling, size of the space)
• Lighting goals
• Retrofit
• Redesign
• Create a lighting system plan
• Integration with day light
• Switches and dimmers
• Code Compliance path
• Lighting Levels
• Types of Luminaire
• Space by space decisions
• Reflected Ceiling Plan
• Design Development and Documentation
• Impact of Surface Reflectance
• Applications Exterior and interior