

# Lighting Design

## The Art of Illumination

Instructor: Michael Colgan  
TU, Th 12:30 - 1:50 pm

Hg

### Outline:

An appreciation of lighting design is especially important for Interior Designers. Lighting design requires the application of both artistic talent and technical knowledge, human vision depends on adequate lighting levels, human moods and well-being are greatly affected by lighting and our ability to determine color and perceive form and space depends on lighting quality and intensity.

Lighting is an indispensable part of any interior design scheme. Interior Designers, as well as being able to provide artistic input, must feel comfortable interpreting the technical data which has become an integral part of the lighting design and specification process. Energy codes, electrical safety and liability data, often aimed at specialist lighting designers and electrical engineers must be appreciated, if designers are to provide service leadership to their clients.

The overall success of interior design frequently depends upon the coordinated efforts of a design team and complex interior design projects frequently require interior designers to work with architects, engineers and lighting specialists. Accurate communication between these disciplines is most important to a projects' efficiency. Interior Designers need to be actively involved in and understand the overall process if their design visions are to become a practical reality.

### Intent:

The intent of this class is to provide an insightful overview of the Art, Science and Technology of successful lighting design. Students will be introduced to the psychological, physical and physiological requirements of lighting as well as aesthetic considerations. The class provides necessary information for an appreciation of light and lighting as it relates to interior design. Luminaire design is broadly outlined. Students should gain an understanding of interior design lighting requirements, the development of lighting as a design specialty and an appreciation of how to work on projects with lighting manufacturers and designers from other disciplines.

### Structure:

The class will comprise a mixture of lectures, discussions, class study and project work relating to lighting design. Class hours will be devoted to lectures, study forums projects and critical analyses; homework will involve critical observation, background reading and preparation for class and coursework study requirements.

### Professional development:

Successful completion of this course will enable students to develop an understanding of the possibilities and difficulties of lighting design and work effectively with others on the design of lighting installations. The course could also serve as a foundation to the continued study of lighting as a design specialisation

### Evaluations:

Attendance is mandatory, more than 2 unexcused absences may lead to grade reductions. Coursework will be project oriented and will comprise 70% of overall required grade; 30% of grade will be by written examination. Both parts must be passed to aggregate a final passing grade.

COURSE # ID 325

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Classwork, projects 70%, Exam 30%

<b>LIGHTING DESIGN</b>		<b>24 lecture Hours + exam remainder are design hours</b>
<b>Lecture Topics: Does not include class or project work</b>		
Light & lighting overview	The nature of Light	2
Getting the things to work	Electrical supply systems	2
Lighting effects	Tricks of the trade	1
Lighting design & terminology	Tools of the trade	1
Light & Color	Color Temperature & CRI	1
Visual reception	Seeing and believing	1
Psychology & lighting	Designing for Emotion and Sales	1
The Lighting Trilogy, incandescent, fluorescent & discharge lighting		2
Luminaires, shining examples of the art & how to design them		2
Photometrics and lighting specification		1
Residential lighting design	At home with lamping	2
Commercial & industrial lighting	Codes of conduct	2
Special Purpose lighting	Film & Stage lighting	1
Lighting design as a specialty	Designers from varied backgrounds	1
Summary & Review		2
Final Exam		2hr exam
 <b>COURSEWORK PROJECTS/ PRESENTATIONS:</b>		<b>due dates:</b>
		TBA
<ol style="list-style-type: none"> <li>1. Natural &amp; artificial light</li> <li>2. Residential lighting designs &amp; plans</li> <li>3. Commercial lighting designs &amp; plans</li> <li>4. Lighting/ luminaire design-build</li> <li>5. Photometrics &amp; the art of lighting (research &amp; presentation)</li> </ol>		