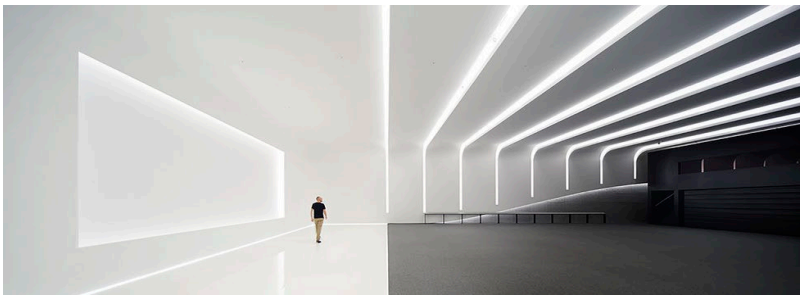


IND 3431
INTERIOR LIGHTING

Department of Interior Design
College of Design, Construction and Planning
University of Florida
Spring 2025
3 Credits

Jason Meneely, Associate Professor **|** jmeneely@ufl.edu **|** Office Hours: M 11:30, ARCH 352

COURSE SCHEDULE: Monday, Wednesday 8 & 9 (3:00pm – 4:55pm) |

COURSE DESCRIPTION

Introduction to lighting design based upon critical awareness of the luminous environment, and principles and perception of light. Graphic exercises in lighting design and lighting calculations based on student design solutions.

COURSE GOALS & OBJECTIVES

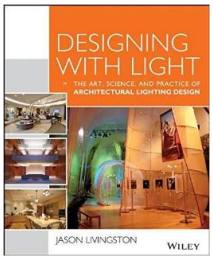
As a result of this course the student will:

- Demonstrate understanding of the concepts, principles, and theories of sustainability as they pertain to building methods, materials, systems, and occupants. (CIDA standard 2a)
- Identify and define relevant aspects of a design problem (goals, objectives, performance criteria). (CIDA standard 4a)
- Gather appropriate and necessary information and research findings to solve the problem (evidence-based design). (CIDA standard 4b)
- Evaluate, select, and apply information and research findings to design. (CIDA standard 4c)
- Synthesize information and generate multiple concepts and/or multiple design responses to programmatic requirements. (CIDA standard 4d)
- Have awareness of team work structures and dynamics. (CIDA standard 5a)
- Use sketches as a design and communication tool (ideation drawings). (CIDA standard 6c)
- Produce competent presentation drawings across a range of appropriate media. (CIDA standard 6d)
- Effectively apply the elements, principles, and theories of design to two & three-dimensional design solutions. (CIDA standards 9a, b)
- Demonstrate understanding of color principles, theories, and systems. (CIDA standard 10a)
- Demonstrate understanding of the interaction of light and color and the impact they have on one another and interior environments. (CIDA standard 10b)

- Understand the principles of natural and electrical lighting design. (CIDA standard 12a)
- Competently select and apply luminaires and light sources. (CIDA standard 12b)
- Read and interpret construction drawings and documents. (CIDA standard 13g)
- Have awareness of sustainability guidelines. (CIDA standard 14a)
- Demonstrate understanding of laws, codes, standards, and guidelines that impact fire and life safety, including movement: access to the means of egress including stairwells, corridors, exit-ways. (CIDA standard 14d)
- Select and apply appropriate federal, state/provincial, and local codes; standards; accessibility guidelines. (CIDA standards 14g, h,i)

COURSE TEXTBOOKS & SUPPLIES

Required Text:



Jason Livingston (XXXX). *Designing With Light: The Art, Science and Practice of Architectural Lighting Design*. New York: John Wiley & Sons.

Required Software & Materials:

Students are required to obtain and install the following software on their personal computer:

- Rendering and Lighting Software to be determined and announced.
- Likely 3dsmax 2020, Revit 2020, Enscape, possibly Corona renderer for 3dsmax (plan $28 just in case)
- Misc. paper, cardboards, and modeling supplies as needed for projects
- Access to a digital camera

Reference Texts:

- Susan Winchip (2011). *Fundamentals of Lighting*. 2nd ed. New York: Fairchild Publications
- Gary Steffy (2008). *Architectural Lighting Design*, 3rd ed. New York: John Wiley & Sons
- Randall Whitehead (2008). Residential Lighting: A Practical Guide to Beautiful and Sustainable Design, 2nd ed. New York: John Wiley & Sons
- Mark Karlen & James Benya (2004). Lighting Design Basics. New York: John Wiley & Sons

COURSE ORGANIZATION

Instructional activities will include lectures, class discussions, readings, exercises, exams, field trip(s), and assignments that relate to your class projects and lectures. It is important that you are prepared to contribute to discussions related to the assigned readings. Studio will involve a series of exercises and projects and will relate to the lecture series. This course makes use of a field trip to Atlanta offered during the semester as part of Architectural Interiors 2 (IND 3216).

GRADING PROCEDURES

Midterm Exam	20%
Final Exam	20%
Exercises	20%
Projects	40%
Total =	100%

Grading Scale

A = 93 – 100%	C = 73 – 76%
A- = 90 – 92%	C- = 70 – 72%
B^+ = 87 – 89%	D^+ = 67 – 69%
B = 83 – 86%	D = 63 – 66%
B- = 80 – 82%	D- = 60 – 62%
C^+ = 77 – 79%	E < 60%

The **Midterm Exam** will cover lecture material, reading assignments, and information gleaned from the class assignments and exercises. **Final exam** will assess information from the entire semester.

Each assignment, exercise, and project - complete or incomplete - must be turned in on the due date and will be graded as they stand. Students who seek an alternative to this rule must attain permission from instructor prior to the due date. The projects will be evaluated based on what is turned in at that time. *No unexcused late project will be accepted. The late project will be given a failing grade.*

STUDENT ACCOMMODATIONS

Students requesting classroom accommodation must first register with the Disability Resource Center at University of Florida Dean of Students Office, see http://handbook.aa.ufl.edu/policies.aspx. The Dean of Students Office will review the case and, if appropriate, provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

ACADEMIC INTEGRITY AND THE UF HONOR CODE

All students at the University of Florida are expected to adhere fully to University of Florida Student Honor Code, view at http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php. The Honor Code outlines the expectations for student conduct in regard to academic honesty. All students should review this policy to understand the range and scope of the standards and the seriousness of any infractions of the code. The policy places full responsibility on students to know and adhere to these standards for academic integrity. All examinations, quizzes, design projects, and assignments in the Department of Interior Design are subject to this policy. Maintaining strict academic integrity is a priority of the Department of Interior Design and all instructors will fully enforce the UF Honor Code in their studios and classes. A strict adherence to the Honor Code is expected by the University of Florida and reflects the ethical standards of the interior design profession.

Note:

* *The instructor reserves the right to make changes in the course schedule and syllabus as required to facilitate learning. Adjustments will be made when necessary and according to the professional judgment of the instructor.*

* *All work produced is property of the Department of Interior Design. Instructors will keep samples of student work. Students are advised to document work before collection.*

IND 3431 - PROPOSED CLASS SCHEDULE 2025

	Date	Lecture	Reading	Assignments / Due Dates
Week 01		· **Introduction** · Designing with Light	Ch 1 (p. 1 - 6) Ch 2 (p. 7 - 35)	
		· **Physics of Light** · What is Light?	Ch 3 (p. 37 - 45)	Start: Project 1 | Light in Box
Week 02		· **Human Factors & Light** · Perception & Vision · How We See	Ch 4 (p. 47 - 56)	
		· **Human Factors & Light** · Psychology of Light · Light & Health · Well Building Standard	Ch 5 (p. 57 - 66) Ch 16 (p. 281 - 285)	
Week 03		· **No class** (Martin Luther King Day)		
		· **Quality of Light** · Direction & Distribution · Material Interaction · Bending & Controlling Light	Ch 6 (p. 67 - 78)	
Week 04		· **Quality of Light** · Color of Light · Color Temperature · Color Rendering · Metamerism	Ch 8 (p. 109 - 140)	
		· **Quantity of Light** · Measurement and Terms · Intensity (Candelas) · Flux (Lumens) · Illuminance (Lux / Footcandles) · Exitance (lm/m^2 , lm/ft^2) · Luminance ($cd/m^{2)}$	Ch 13 part 1 (p. 245 - 253)	
Week 05		· **Atlanta Trip**		
Week 06		· **Sources of Light (Lamps)** · Filament Sources	Ch 7 (p. 79 - 108)	

		· Low-Intensity Discharge Sources		
		· **Sources of Light (Lamps)** · High-Intensity Discharge Sources · Solid State Sources		**DUE: Project 1 | Light in a Box** Start Project 2 | TBA
Week 07		· **Lighting Systems & Fixtures** · Luminaire Components · Luminaire Types · Mounting Conditions	Ch 9 (p. 141 - 166)	
		· **Lighting Systems & Fixtures** · Reading Manufacturer's Literature		
Week 08		· **Lighting Controls** · Need for Controls · Types of Controls	Ch 12 (p. 225 – 243)	
		· **Daylighting**	Ch 10 (p. 167 – 178)	
Week 09		**No class** – Spring Break		
Week 10		· **To Be Announced** · Midterm Review		
		· **Mid-term Exam**		**Midterm Exam (In Class)**
Week 11		· **Photometrics & Calculations**	Ch 13 part 2 (p. 253 - 263)	
		· **Documenting the Design**	Ch 11 (p. 179 - 223)	**DUE: Project 2 |TBA** Start Project 3 | Full Lighting Design
Week 12		· **Building & Energy Codes:** · **Sustainability**	Ch 14 (p. 265 - 271) Ch 15 (p. 273 - 279)	
		· **Project 3 Workshop Support**		
Week 13		· **Project 3 Workshop Support**		
		· **Project 3 Workshop Support**		
Week		· **Project 3 Workshop Support**		

14		· **Project 3 Workshop Support**		
Week 15		· **Project 3 Workshop Support** · Review for Final Exam		
		· **Final Exam**		**Final Exam (in class)**
Week 16		· **Project 3 Workshop Support**		
		· **Final Project: Classes End**		**Due: Project 3 | Full Lighting Design**