



# IES Lighting Education 2009

The Oregon Section of the IESNA is pleased to offer **Intermediate Lighting** and **Advanced Lighting** education courses.

Intermediate Lighting Seminar is a classroom style course with lighting designers, industry experts and practicing engineers sharing their expertise, experience and knowledge. Students will learn about up to date practices, technology and emerging trends from our own regional experts.

The Advanced Lighting Seminar, immediately following the Intermediate Lighting seminar, brings the knowledge gained in this classroom presentation and applies these lighting concepts with hands on applications, group and individual activities, research and presentations. This active learning process will bring the world of lighting design alive for the student.

- **Who should attend?**

- Lighting designers, architects, electrical engineers, interior designers, anyone looking to extend their knowledge of lighting design and analysis, and those planning to take an LC exam.

- **When:**

**January 24 - January 31 - February 7 - February 21**

- Intermediate Lighting: 9:00 am to 4:00 pm
- Advanced Lighting: 4:15 pm to 5:30~6:00 pm

**Bring your own lunch or several café and restaurants are in the area.**

**There will be several breaks during the day with no single period of instruction more than 90 minutes.**

- **Where:**

**University of Oregon, White Stag Building**

- 70 North West Couch Street
- Parking is available in several lots around the area
- Mass Transit: There is a MAX stop right in front of the building.

- **Cost:**

**IESNA Member**

- \$100.00 Individual class (intermediate or advanced)
- \$350.00 Intermediate lighting
- \$450.00 Advanced lighting
- \$700.00 Full course (Intermediate + Advanced)
- *-\$50.00 2007/2008 Intro to Lighting (ED50) student discount*

**Non-Members**

- \$125.00 Individual class (intermediate or advanced)
- \$400.00 Intermediate lighting
- \$500.00 Advanced lighting
- \$750.00 Full course (Intermediate + Advanced)
- *-\$50.00 2007/2008 Intro to Lighting (ED50) student discount*

**Late Registration Fee**

- \$50.00 Applies to payments received on or after January 21st  
(Does not apply to Individual Class attendance)

- **How To Sign Up:**

Go to <http://www.ies-or.org/education.php>

- Online registration with PayPal

**Mail a check and this completed registration form to:**

Mark Godfrey, c/o IESNA Lighting Education  
708 SW 3rd Ave, 4th Floor.  
Portland Oregon 97204

- Make tuition check payable to "IESNA-Oregon Section".

**Last minute registrations:**

- Send email with your intent to attend the class to [markg@interfaceeng.com](mailto:markg@interfaceeng.com)
- Include "Lighting Education" in the subject line.
- Bring check and registration to the first class of the series, 30 minutes early.
- Don't forget late registration fees.

**Updated information, schedules, class materials, and downloads will be on the Oregon IESNA website:**

<http://www.ies-or.org/education.php>

**Registration for IESNA-Oregon Section Intermediate and/or Advanced Lighting Courses**

Name:			
Company:			
Address:			
City / State / Zip:			
Day Phone:			
Email:			
FEE:	IESNA Member – YES / NO	IESNA MEMBER NUMBER	Received by Initials and Date
NOTES:			

**PRELIMINARY SCHEDULE**

Basic Lighting Topics		Advanced Lighting Topics		
Schedule	Topic	Schedule	In Advance:	Read papers on photometry, optics, calculations (provided in advance)
Week 1 1/24/2008	1. White Stag Walk through 2. Lamps and Ballasts 3. Photometry, Luminaires and Optics 4. Lumen method calculations, AGI and related programs	Week 1 1/24/2008	All: Small Group Small Group Assignment	Discuss assigned reading within context of presented material. Discuss lighting calculation programs, advantages and disadvantages. Lighting Typology - discuss, summarize and present Select a white paper related to light, color, vision, perception and/or health Individually read and prepare for discussion.
Week 2 1/31/2008	1. Light and Color 2. Vision Perception and Health Follow up discussion Q&A (if time allows)	Week 2 1/31/2008	Small Group Small Group Assignment	Discuss and prepare a short written summary of week 1 paper. Present to class and address questions Select a project (supplied) Individually create a luminaire and space type schedule. Be prepared to discuss with small group.
Week 3 February 7	1. Principals of Interior design a. Lighting for visual impact b. Lighting for visual performance  2. Lighting For Retail 3. Lighting for Office and work environments 4. Lighting for Schools 5. Lighting for Healthcare	Week 3 February 7	Small Group  Assignment	Discuss and refine prepared room/luminaire schedule within context of presented material. . Prepare a Group Consensus Schedule. Be prepared to present to class and discuss 1. Add to Space/Luminaire schedule information related to class topics including: description of lighting appropriate to space IES standards for ambient and/or task light levels. 2. Practice calculations for project. Perform a Lumen method calculation for at least 4 different space types from your space/luminaire schedule. Include calculation for RCR, LLF and Final average light level calculations. assume 80/50/20 reflectances. 3. Same 4 spaces: construct AGI models showing point by point calculations.
Week 4 2/21/2008	1. Electrical Systems and Lighting Control systems 2. Energy Codes, Economics and Energy Management  Receive Take Home Exam	Week 4 2/21/2008	Small Group  Assignment	1. Add lighting control scheme and calculate energy power density for project. 2. Present lighting control scheme to class. Discuss and answer questions. 1. Research one alternate luminaire for each entry on Luminaire schedule. 2. Refine lighting control system, prepare a set of cut sheets, final marked up lighting plan, and final luminaire schedule. 3. Create a 8.5" x 11" 3 ring binder with this material Take Home Exam
Week 5 2/26/2008	Turn in, mail or email Take Home Exam	Week 5 2/26/2008		Turn in Take Home Exam and Project 3 Ring Binder