IES MILWAUKEE 38

FUNDAMENTALS OF LIGHTING WINTER/SPRING 2020

COURSE OVERVIEW:

This ten-week course provides participants with an introduction to the fundamentals of illumination. It gives a comprehensive overview on basic lighting principles, lamp and luminaire types, lighting calculations, and controls, as well as functional and aesthetic applications. This course is ideal for architects, engineers, designers, contractors, sales reps, customer service reps, manufacturers, distributors, and students. Full module descriptions on reverse.

WHEN

FEBRUARY 25TH THRU APRIL 28, 2020
(Snow days 5/5 & 5/12 if needed)
6:00pm - 8:30pm

WHERE

Milwaukee Location:
HGA
333 East Erie Street, Milwaukee, WI 53202
Free on-street parking available at 6pm

Madison Location (via webinar) :
Faith Technologies
22 Transport Ct, Madison, WI 53704
Free parking onsite

Questions? Contact : Teresa Jackson
tjackson@wi.rr.com, 262-665-8980

ONLINE REGISTRATION

Pre-registration is required and registration fees must be paid in advance. To register, please complete the electronic form at: www.iesmilwaukee.org/fundamentals-of-lighting

Online payments via Paypal and pre-paid checks are accepted .

25 CEU 's Available!

Course fees

$400 Standard Registration
$100 College Student

SIGN UP TODAY!

Registrations received after February 12th may not receive materials in time for the first class.

www.iesmilwaukee.org/fundamentals-of-lighting.com

2020 FOL Course Syllabus:

Module 1, February 25 – History, Professional Practice, Defining Light, Vision, Color, and Light & Health

Teresa Jackson, LC, MIES (Enterprise Lighting & Controls)

In this introductory presentation we will cover the history of light and lighting, define light through both physics and metrics, illustrate the four components of vision, and discuss various aspects of color theory from color mixing to the color rendering index.

Module 2, March 3 – Electric Light Sources and Auxiliary Devices

Eric Haugaard (Cree)

Light sources including filament, gas discharge and solid state (LED) will be presented. Lamp applications, equipment necessary to power these sources, and other considerations will also be reviewed.

Module 3, March 10 – Daylighting

Holly Blomquist, LC, MIES, LEED Green Associate (Ring & DuChateau)

This session will introduce daylight as a light source in buildings, including design considerations, daylight delivery systems, control methods, performance and metrics.

Module 4, March 17- Luminaires

Kyle Kichura, LC, MIES (Franklin Energy Services)

Luminaire forms and optics are introduced along with classifications by application, distribution, and mounting method. We will discuss additional luminaire attributes relating to performance and maintenance.

Module 5, March 24 – Controls

Randy Janicek, MIES (Engineered Representation, Inc.)

Lighting control types, strategies, methods and protocols are introduced in this session. In addition, integrating lighting controls with other building systems and a discussion of controls applications is included.

Module 7, March 31 – Codes and Standards, Economics

Justin Hendrickson, LC, MIES (Elan Lighting)

In this session, safety and Energy codes and standards are introduced. Trends in energy management and strategies to achieve energy saving goals are discussed, along with the role of economic analysis as part of an overall lighting design. Methods for economic analysis including Life Cycle Cost Benefit Analysis are modeled and applied.

Module 8, April 7 – Lighting Design Process and Techniques, Sustainability & Commissioning

Shanna Olson, LC, MIES, Affiliate IIDA (IMEG Corp.)

The lighting design process, from programming through construction is reviewed in depth. We will discuss factors for design decisions and application considerations as part of the overall design process. Industry ratings for sustainability including LEED, and building commissioning practices are also covered.

Module 6, April 14 – Photometry, Metrics, & Computer Calculations

Chris Glandt, LC, MIES (Visa Lighting)

The elements of photometric testing and reporting will be presented. The role of lighting design calculation as part of the design process is reviewed, and calculation methods, including the Lumen Method for average illuminance, and the point method for illuminance at a point, will be presented and applied. Computer calculations and rendering techniques are also discussed.

Module 9, April 21 - Lighting for Interiors

Barbara Lee, LC (IMEG Corp.)

The art and craft of interior lighting, applied in various building and space types, is a make-or-break factor in an overall interior design. Examples of designs are shown and the role of lighting within the well-designed interior is discussed. We will also discuss research relating to human perception and reaction to interior environments, and the important role of lighting within those findings.

Module 10, April 28 – Lighting for Exteriors

Yazi Fletcher, LC, MIES (Red Sky Lighting)

Great lighting effects are not just for the indoors. Exterior lighting methods and applications from public spaces to roadways to sports lighting is discussed. The effect of lighting on the exterior environment, and exterior lighting controls techniques are also included.