

COURSE OUTLINE

Lighting

IND1432

Dr. Ann Roccon ASID, IIDA, CKD, Instructor

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2 Credit Hours

Introduction:

This class is a course to develop critical understanding of electrical, lighting, and plumbing. Please come to class prepared to take notes and work.

Description

This course continues the study of interior design principles, specifically understanding, utilizing and planning electrical and lighting systems in residential and non-residential applications. Emphasis on lighting, electrical, and reflected ceiling plans, measurements, and acoustics.

Pre-Requisites:

IND1020: Principles of Interior Design

Co-Requisites:

IND1301: Technical Design I

IND1401: Interior Design Graphics

Program Learning Outcome: Apply Critical Thinking Through Problem Solving

Assessed Degree Program Learning Outcome: Numerical grade (0-100) will be recorded based on the final project assigned in Week 2 as listed in the schedule.

Learning Outcomes and Objectives

1. Design electrical and lighting systems for commercial and residential needs. (**Synthesis:** Design)
 - a. Define electrical and lighting components and their use. (**Knowledge**)
 - b. Understand lighting terminology. (**Comprehension**)
 - c. Understand types of light. (**Comprehension**)
2. Specify electrical and lighting systems for commercial and residential needs. (**Evaluation:** Specify)
 - a. Specify appropriate types and amount of light. (**Evaluation**)
 - b. Understand ventilation equipment for the kitchen and bath according to NKBA Planning guidelines. (**Comprehension**)
 - c. Properly select ventilation equipment for the kitchen and bath according to NKBA Planning guidelines. (**Analysis**)
3. Render overlays of electrical systems as applied to floor plans. (**Application:** Render)
4. Assess heating and cooling requirements for specific needs. (**Evaluation:** Assess)
 - a. Understand legal standards and their applications for heating-specific referrals to manufacturers, architects, and codes. (**Comprehension**)

5. Produce working drawings and plans with specifications for heating and cooling needs. (**Synthesis**: Produce)
 - a. Incorporate applicable building code requirements into the project to assure the public's health, safety, and welfare. (**Synthesis**)
6. Develop alternative systems of heating and cooling. (**Synthesis**: Develop)
 - a. Evaluate building mechanical systems to satisfy the design criteria. (**Evaluation**)
 - b. Recognize the implications of altering the mechanical systems as related to the cost, structure, and design. (**Comprehension**)
 - c. Demonstrate awareness of codes to ensure the health, safety, and welfare of the public. (**Application**)
7. Aesthetically produce coordination between architectural and thermal needs, and the visual plans of an environment. (**Synthesis**: Produce)
 - a. Identify tangible and intangible project constraints by observing the space and designing solutions that satisfy the client's wants and needs. (**Analysis**)
 - b. Apply knowledge to supervise the implementation and completion of the project by communicating with all responsible parties to fulfill the obligations of the contract. (**Application**)

Assessment of Learning Outcomes: Learning outcomes are determined by measuring the ability of each student to retain the learning outcomes of the course. Performance-based methods, such as completion of assigned projects, general knowledge tests, oral and written presentations of assignments, group discussions, observation of mastery of critical skills and analysis of the final product will determine the final grade on this course.

Outline of Course Work:

Do the necessary textbook reading and corresponding homework before coming to class. Take notes during each lecture and presentation. Present and explain course projects in both team and individual presentations. Use the instructor's comments and suggestions to improve your work.

Text:

Winschip, S. M. (2011). *Fundamentals of lighting (2nd ed)*. New York, NY: Fairchild Books.
~Required~

Grading Division

- 10 points – Attendance and punctuality
- 20 points – Smaller Projects
- 30 points – Major Project/Presentation:
- 10 points – Handouts/Homework
- 10 points - Quizzes
- 20 points – total for each of 2 exams

Grading Scale

- 90 – 100 = A
- 80 – 89 = B
- 70 – 79 = C

60 – 69	= D
Below 60	= F

Course Requirements:

- Design and produce a working luminaire according to specifications.

Policy on Late Work or Make-Up Exams

Work handed in over one week late will have 10 points automatically removed from their grade. Visual Presentation will be handed in on the dates indicated and Oral Presentation will be given on the dates assigned. Only in extreme circumstances will late presentation be considered for grading and are subject to approval by the instructor.

Withdrawal and Attendance Policy

It is the student's responsibility to withdraw from the class by **November 1, 2015** with a grade of "W".

Excessive absences (more than 2 for a class that meets twice a week) will result in administrative withdrawal or a grade of "F". Each minute a student arrives late or leaves early will cost him/her a point. 30 minutes or more away from class will be considered an absence.

Classroom Policy

- It is the student's responsibility to turn off cell phones during class.
- If an emergency call is needed, the student is to step out of the class to take or make the call.
- No iPods or mp3s during class unless approved by the instructor.
- The lecture or discussion will start 5 minutes after the period has started.
- No talking (private conversations) during lectures. □ No business transactions during class time.

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Expectations of a College Writer

In any paper, correspondence, or other written communication with your instructor, students **must** adhere to the following standards:

1. Communicate using Standard English. Papers, correspondence or electronic communications using computer Instant Message Chat Slang or jargon or any such slang, lingo, or other computer-related language will not be accepted.
2. Correctly spell and use the appropriate forms of words.
3. Begin each sentence with a capital letter and end with proper punctuation.
4. Write complete sentences that are clearly worded, not garbled and confusing. Do not use fragments, comma splices or run-on sentences.

5. Avoid glaring grammatical errors. Look up the grammar rules if you do not remember the appropriate usage. Seek help in the learning labs, a grammar handbook
6. When preparing a paper, create a thesis sentence that states the main idea of the essay or a topic sentence that states the main idea of the paragraph.
7. Organize the major supporting ideas and information so that the reader can follow.
8. Read your work aloud; then, revise and edit it. If you cannot come into our campus learning lab for assistance, you may wish to use the service of ***Smart thinking***, an online writing review program. This site provides access to professional online writing tutors. Students receive a detailed, personalized critique of any written assignment, such as an essay, report, personal statement, cover letter, resume, or creative story.
9. Use appropriate citation style for all research papers. Confirm with your instructor the appropriate format to use.

Special Needs

If you have any special needs or requirements pertaining to this course, please discuss them with the instructor early in the term.

Syllabus Disclaimer

This syllabus is subject to change at the discretion of the instructor. Changes will be distributed when appropriate as an addendum to the syllabus. The course goals, objectives, and student competencies do not change.

