SOUTHEAST MISSOURI STATE UNIVERSITY
COURSE SYLLABUS

Department of **Human Environmental Studies** Course Number**: DS330**
Course Title: **Lighting & Electrical Systems** Revision of HI220: **Fall 2008**

I. Catalogue Description and Credit Hours

Overview of light sources, luminaries, and daylighting. Introduction to lighting calculations, reflected ceiling plans, electrical, data, voice, and security systems. (3)

II. Prerequisite(s)

CM100

III. Purposes or Objectives of Course

A. Identify light sources and switching or dimming systems applicable to the design solution.
B. Examine color temperature and the various factors affecting lighting design.
C. Complete lighting calculations and illustrate completed lighting designs using symbols and reflected ceiling plans.
D. Analyze and critique lighting solutions for a variety of residential and commercial spaces.
E. Illustrate knowledge of electrical systems, codes, symbols, and layout appropriate for interior design.
F. Apply knowledge of data, voice, and security systems to electrical plans.

IV. Expectations of Students

A. Satisfactorily complete all class assignments and quizzes.
B. Complete lighting and electrical layouts for residential and commercial spaces.
C. Actively participate in class discussions/activities.

V. Course Outline or Content **Hours**

A. Lighting Basics **15**

1. Electric light sources
2. Switching, dimming, and control systems
3. Daylighting
4. Color temperature
5. Physiological and psychological factors
6. Art and science of lighting design

B. Lighting Design **15**

1. Calculations
2. Reflected ceiling plans
3. Lighting symbols
4. Layered lighting
5. Lighting design process
6. Working with lighting designers

C. Lighting for Specific Spaces **40**

1. Residential
2. Office and corporate
3. Hospitality
4. Healthcare/institutional
5. Retail
6. Common spaces

D. Electrical, Data, Voice and Security Systems **20**

1. Power distribution
2. Electrical plans, symbols, and layout
3. Electrical, data, and voice
4. Electric and energy codes
5. Security systems

* Total laboratory hours = **90**

VI. Textbook(s) and/or Other Required Materials or Equipment

Karlen & Benya. (2004). Lighting Design Basics. Hoboken, NJ: John Wiley & Sons.

Students are responsible for supplying drafting and project materials, and purchasing illustration media.

VII. Basis for Student Evaluation

A.	Class assignments and quizzes	**20%**
B.	Lighting and electrical layouts	**75%**
C.	Participation in class discussion and activities.	**5%**

Note: The weight of the evaluation criteria may vary according to each instructor and will be communicated at the beginning of the course.

VIII. Academic Policy Statement

Students will be expected to abide by the **University Policy for Academic Honesty** regarding plagiarism and academic honesty. Refer to:

http://www6.semo.edu/judaffairs/code.html

IX. Student with Disabilities Statement

If a student has a special need addressed by the **Americans with Disabilities Act (ADA)** and requires materials in an alternative format, please notify the instructor at the beginning of the course. Reasonable efforts will be made to accommodate special needs.