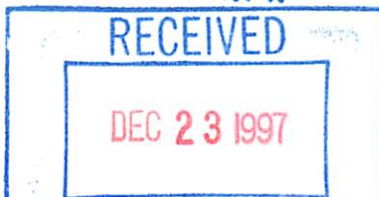


LSC Use Only

Number: _____

Submission Date: _____

Action-Date: _____



UWUCC USE Only

Number: 97-269

Submission Date: app. 2/17/98

Action-Date: Senate app. 3/3/98

CURRICULUM PROPOSAL COVER SHEET
University-Wide Undergraduate Curriculum Committee

I. CONTACT

Contact Person Christine Wilson Kesner Phone 357-2395/2336

Department Human Development and Environmental Studies

II. PROPOSAL TYPE (Check All Appropriate Lines)

ID 305 COURSE Interior Lighting Suggested 20 character title

 New Course * _____
Course Number and Full Title

X Course Revision CS 465 Interior Lighting
Course Number and Full Title

 Liberal Studies Approval + _____
for new or existing course Course Number and Full Title

 Course Deletion _____
Course Number and Full Title

X Number and/or Title Change CS 465 Interior Lighting
Old Number and/or Full Old Title

 ID 305 Interior Lighting
New Number and/or Full New Title

X Course or Catalog Description Change ID 305 Interior Lighting
Course Number and Full Title

 PROGRAM: Major Minor Track
 New Program* _____
Program Name

 Program Revision* _____
Program Name

 Program Deletion* _____
Program Name

 Title Change _____
Old Program Name

New Program Name

III. Approvals (signatures and date)

Mary E. Seuerlein 4/8/96
Department Curriculum Committee

Miriam Barker 3/6/97
College Curriculum Committee

Donna Strickland 4-8-96
Department Chair

Harold E. Wingard 17 Mar 97
College Dean

M. S. [Signature] 3/19/97

+ Director of Liberal Studies (where applicable)

*Provost (where applicable)

Catalog description

ID 305 Interior Lighting

Prerequisite: ID 105 or equivalent

(3c-01-3sh)

Lighting fundamentals applicable to the environmental design of residential and commercial spaces. Includes calculation methods, terminology, theory of color visibility, light source alternatives, fixture function and selection, lighting trends, and related professional organizations.

Part II. Description of the Curriculum Change

1. New syllabus of record, including catalog description with course title, number of credits, prerequisites, and an appropriately written course description.

120

ID 305 Interior Lighting

I. Catalog description

ID 305 Interior Lighting

3 credits

3 lecture hours

0 lab hours

(3c-0l-3sh)

Prerequisite: ID 105 or equivalent

Lighting fundamentals applicable to the environmental design of residential and commercial spaces. Includes calculation methods, terminology, theory of color visibility, light source alternatives, fixture function and selection, lighting trends, and related professional organizations.

II. Course objectives

Upon completion of this course, the student will be able to:

1. demonstrate an understanding of the impact of lighting on three-dimensional spatial composition
2. effectively apply lighting as an element of design
3. demonstrate competence in applying the design process to lighting design (i.e. programming, conceptualization, problem solving, and evaluation)
4. demonstrate competence in the selection and application of finish materials for lighting visual comfort
5. demonstrate competence in the selection and application of lighting
6. utilize technical drawings to effectively communicate lighting design
7. demonstrate competence in applying lighting laws, codes, and standards
8. demonstrate competence in specifying light sources and fixtures
9. demonstrate an understanding of the interactive impact of lighting on architectural building systems
10. recognize metric illuminance units
11. identify major lighting industry issues, e.g. environmental concerns
12. demonstrate an understanding of effective written communication skills
13. demonstrate an awareness of computer applications related to lighting
14. name the dominant lighting professional organizations, journals, and trade publications
15. demonstrate an understanding of the relationship between the lighting industry and lighting business practices
16. demonstrate competence in lighting information gathering techniques and the use of reference materials
17. recognize the value of lighting research and its contribution to the body of knowledge

III. Detailed course outline

- WEEK 1** (3 lecture hours)
 Lighting Trends/New Products/Terms
 Lighting Issues/Roles of lighting
- WEEK 2** (3 lecture hours)
 Design process (Programming, etc.)
 Resources for the lighting designer
 Project requirements
 Design communication
- WEEK 3** (3 lecture hours)
 Lighting and architecture
 Systems integration
 Total building performance
 Daylighting
- WEEK 4** (3 lecture hours)
 Physical factors
 The electromagnetic spectrum
 Characteristics of light
 Absorption, reflection, refraction, transmission
 Fiber optics
 Surface finishes & reflectances
 Light and color
 Color temperature (chromaticity), color rendition,
 metamerism, color balance, spectral power distribution curves
 Electricity basics
 Lighting codes and Circuit loads
- WEEK 5** (3 lecture hours)
 Physiological factors
 The human visual system
 The aging eye
 Task factors
 The visual task/Task lighting
 Establishing target values
- WEEK 6** (3 lecture hours)
 Psychological factors
 Electrical light sources
 Incandescent lamps
- WEEK 7** (3 lecture hours)
 Fluorescent lamps
 High intensity discharge (HID) lamps
 MID-TERM EXAM

WEEK 8	(3 lecture hours)
Miscellaneous sources-Cold cathode/Neon	
WEEK 9	(3 lecture hours)
Photometrics	
Measuring light	
Reading catalogs/ spectral power distribution curves	
WEEK 10	(3 lecture hours)
Calculations	
Lumen method	
WEEK 11	(3 lecture hours)
Point method	
Visual effects (Wallwashing, grazing, silhouetting, uplighting, backlighting, modeling)	
WEEK 12	(3 lecture hours)
Lighting structural techniques	
Valance, cornice, soffit, bracket, lay-in panel, cove	
Luminaires (fixtures)	
Light control	
Lighting layout and design	
Energy load calculation	
Luminaire and light source schedule	
WEEK 13	(3 lecture hours)
Lighting application	
Residential	
Museums/art galleries	
Offices	
WEEK 14	(3 lecture hours)
Restaurants	
Store/display	
Lighting profession	
Lighting education	
The industry/Job opportunities	
Periodicals/Organizations	
Role of the computer	

IV. Evaluation Methods

FINAL GRADE:	%	PTS.
Exam 1 (Exam will consist of a combination of true/false, multiple choice, and potentially, matching, completion, or short answer essay)	20%	200
Light measuring activity	5%	50

Pop quizzes (no makeups)	5%	50
Lighting project	50%	500

Option 1 (Non-ID majors)		Options 2, 3, 4 (ID majors)	
1 Client program	50	1 Client program	50
2 Plan/furn./color bd.	50	2 Plan/furn./color bd.	70
3 Calculations	150	3 Calculations	140
4 Reflected clg. plan	25	4 Reflected clg. plan	25
5 Ltg/switching plan	90	5 Ltg/switching plan	70
6 Watts/SF	35	6 Watts/SF	25
7 Design concept	25	7 Design concept	25
8 Schedule	75	8 Schedule	65
		9 Elev/sect/detail	30

Exam 2 (Finals wk.)	20%	200
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TOTAL	100%	1,000 pts.
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GRADING SCALE: (%) (Grades will not be curved)

A	90-100
B	80-89
C	70-79
D	60-69
F	59 OR <

V. Required textbooks, supplemental books, and readings

REQUIRED TEXT: Gordon, G. & Nuckolls, J.L. (1995). Interior Lighting (3rd edition). New York: John Wiley & Sons.

REQUIRED SUPPLEMENTAL PHOTOCOPY MATERIALS: (Original materials, including evaluation sheets for various sections of project)

RESERVED READINGS: A complete list of required readings is included in packet. Reserved readings are available at the Reserve Desk in Stapleton Library. Additional readings may be assigned throughout the semester as new information becomes available.

VI. Special resource requirements

None

VII. Bibliography

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- Illuminating Engineering Society of North America (IES). (1993). Lighting handbook. New York: IES. [On reserve in the library under "Kesner--CS 465"]
- IES. IES Lighting library [A compendium of technical lighting references on a variety of lighting applications]. New York: IES.
- Church lighting
 - Color and illumination
 - Daylighting
 - Home lighting (Design criteria for interior living spaces)
 - Health care facilities
 - Hospital lighting

- IES. (1989). IES lighting ready reference. New York: IES.
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- Jolles, R.L. (1993). How to run seminars and workshops: Presentation skills for consultants, trainers, and teachers. New York: John Wiley & Sons.
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Part II. Description of the Curriculum Change (continued)**2. Summary of the proposed revisions.**

Revisions are as follows:

1. Prefix change
2. Course number change
3. Course objectives/topics change
4. Prerequisite change

3. Justification/rationale for the revision.

- **Prefix change**

On July 1, 1993, the Home Economics Education Department merged with the Consumer Services Department. The new Human Development and Environmental Studies (HDES) Department now has five diverse majors. The old department course prefixes, HE and CS, do not meet the needs of identifying these unique majors. Each major is expected to make the appropriate prefix changes as program revisions are submitted.
- **Course number change**

The course number is changed from CS 465 to ID 305 so students can apply lighting knowledge in senior level studio classes. The course name is retained.
- **Course objectives change**

Objectives are re-written to meet the 1996 Foundation for Interior Design Education Research (FIDER) accreditation standards summarized at the end of this course revision proposal.
- **Prerequisite change**

The prerequisite is changed from CS 217 Interior Design or equivalent to ID 105 Introduction to Interior Design (formerly CS 217) to reflect re-structuring of the ID Curriculum and name and number changes of CS 217.

4. Old syllabus of record.

INTERIOR LIGHTING
CS 481/581
SYLLABUS

Chris Kesner
x1395

Spring, 1985
Office hours posted

CATALOG DESCRIPTION: Lighting fundamentals applicable to the environmental design of residential and commercial spaces. Includes calculation methods, terminology, theory of color visibility, light source alternatives, fixture function and selection, lighting trends, and related professional organizations.

OBJECTIVES

Upon completion of this course, the student will:

1. Understand terminology related to lighting
2. Explain the interrelationship between light and color
3. Understand the principles of good fixture design
4. Interpret and use manufacturer catalogs to specify illumination
5. Recommend lighting system alternatives for a variety of environments (residential, office, stores and restaurants) within the context of changing technology and from a sound research base
6. Calculate lighting requirements using the Zonal Cavity and/or the Point-by-Point method
7. Use a light meter and interpret readings to determine incident and reflective illumination levels
8. Research and apply the principles of sound lighting design to benefit the end user

STANDARDS:

1. Papers will be typed and double-spaced unless otherwise noted.
2. All projects will be submitted on the date due. ONE LETTER GRADE WILL BE DEDUCTED FOR EACH DAY OVERDUE.
3. NEATNESS COUNTS. Neatness will be a criterion for all presentations.
4. Spelling also counts. Deductions will be made for misspelling.

2/19	METHODS/MATERIALS FOR QUALITY LIGHTING	
	Control of light	Ch. 12
	Covers, lenses, diffusers	
	Brightness relationships	Ch. 13
	Glare, BSI, VCP	
	Construction materials	Ch. 15
2/26	FIXTURES	
	Luminaire categories	Ch. 17
	Recommendations for standard interior luminaires	Ch. 15
	Recessed incandescent lumina- aires	Ch. 13
	Fluorescent luminaires	Ch. 19
	Other luminaire types	Ch. 20
3/5	MID-TERM EXAM	
	Calculations	Ch. 14
	Point-by-point method	
	Zonal cavity method	
3/12	SPRING BREAK	
3/19	LIGHTING APPLICATION	
	Lighting layouts/design re- ports	Ch. 22
	Lighting techniques	GE "Lighting Handbook"
	Parameter surface	
	Structural lighting	
3/25	Lighting specific areas	Misc. assigned readings
	Residential	
	Office	
	CRT/VDT	
	Field trip: GE Lighting Institute - Nela Park Cleveland, OH	
4/2	Restaurant/lounge Store	Misc. assigned readings
4/9	Monday classes held (Easter)	

4/11	The human condition	Ch. 25
	Architectural lighting and associated phenomena	Ch. 26
	Theatrical lighting	Ch. 23
4/15	Lighting trends	Misc. assigned readings
	LIGHTING WORLD III - NYC April 16-18, 1985	
	Student research presenta- tions	
4/23	(Continued)	
4/30	(Continued)	
5/2	Beginning of finals	

FINAL GRADE:

Mid-term exam	25%
Research project	25%
Lighting design resource file/ journal	25%
Final exam	25%

SCALE:

PERCENTAGE:

A	93-100
B	85-92
C	77-84
D	70-76
F	69 or below

Appendix A

Relevant FIDER Criteria Addressed in This Course

FIDER Standards and Guidelines, Professional Level Programs, FIDER Form 402R, January 1996

2.8 Theory

2.8.3 Theory: 3-D spatial composition

2.8.5 Theory: design, e.g. planning, stylistic

2.10 Interior Design

2.10.1 Design process, i.e. programming, conceptualization, problem solving, and evaluation

2.10.9 Selection and application of finish materials, i.e. textiles, floor treatments, and wall treatments

2.10.11 Selection and application of lighting

2.11 Technical Knowledge

2.11.1 Detailing/technical drawings for custom furniture, cabinetry, design elements

2.11.3 Laws, codes, standards, and regulations, e.g. universal accessibility guidelines, life safety, fire, etc.

2.11.4 Specifying, estimating, and installation

2.11.6 Building systems, i.e. electrical, acoustics

2.11.7 Building systems, i.e. HVAC, plumbing

2.11.8 Metric system

2.11.9 Environmental concerns, i.e. energy, ecology, indoor air quality, sustainable materials

2.12 Communications Skills

2.12.3 Writing skills

2.12.5 Computer, i.e. CADD, word processing, and graphics

2.13 Profession

2.13.1 Interior design profession, organizations, related professions

2.13.2 Business and professional practice including ethics, management, relationship to industry, etc.

2.15 Information Gathering Techniques/Research

2.15.1 Information gathering techniques, e.g. survey, literature search, observation, etc.

2.15.2 Reference materials, i.e. codes, regulations, and standards

2.15.3 Awareness of research contributing to the body of knowledge