USC School of Dramatic Arts

THTR 332 LIGHTING DESIGN I

Fall 2018—Monday—2:00-4:50pm
Location: PED 114F/Light Lab

Instructor: Elizabeth Harper
Office: JEF 203
Office Hours: Monday, Wednesday, Friday, 12-1pm
Please always make an appointment.
Contact Info: (310) 729-0082, heilich@usc.edu

Course Description and Overview

Lighting I explores the qualities of light and teaches the technical skills necessary to use light as a conceptual design element. Students will learn how to realize lighting ideas in a theatrical context and communicate those ideas effectively through industry-standard drawings and paperwork.

Learning Objectives

Our goal is to learn how lighting can support a performance, a piece of text, or aural or visual art. We will learn to discuss light in a conceptual way that is accessible to our collaborators and does not rely solely on technical jargon. Concurrently, this class will teach the technical skills necessary to turn lighting concepts into reality, including basic electrical skills, troubleshooting, programming, photometric calculations and design documentation.

Prerequisite(s): THTR 130, THTR 131
Co-Requisite (s): None
Concurrent Enrollment: None
Recommended Preparation: None

Required Materials

8” Crescent wrench
Camera (a phone camera is fine)
Roll of velum (sharing is fine, you don’t need the whole roll)
Roll of tracing paper
Colored pencils (a small set is fine)
Pencil sharpener
Mechanical pencils
Eraser
Stage fixture ¼” field template (can order from Amazon)
Protractor
45/90 degree drafting triangle
Scale ruler (architect, not engineer)
Masking tape
Close-toed, flat soled shoes (these must be worn on lab presentation days)

Supplementary Materials

Heat-resistant gloves
Lightwright 5 or 6
Vectorworks

Description of Grading Criteria and Assessment of Assignments

All projects are worth 100 points and will be graded based on creativity, appropriate use of principles of design, technical skill, craftsmanship, completeness, and effort as applicable. Class participation will be graded based on the student's willingness to ask questions and offering respectful and incisive critiques. All projects will be evaluated via one of the attached rubrics and returned.

The final course grade is based on the following point scale:

A = 100-96%, A- = 95-90%
B+ = 89-86%, B = 85-84%, B- =83-80%
C+ = 79-76%, C = 75-74%, C- =73-70%
D = 69-56%
F = 55% or below

Incomplete assignments lose 10 points (1 grade letter) per day until they are submitted. The only exception to this is lab projects which may be rescheduled with no penalty *only* if there is an excused absence (outlined below). Questions about assignments must be discussed with the instructor prior to the due date.

Grading Scale for SDA: A indicates work of excellent quality; **B** of good quality; **C** of average quality; **D** of below average quality; and **F** indicates inadequate work.

Grading Breakdown

Due to the importance of class presentation and critiques, unexcused absences are strongly discouraged. Missed classes due to an unexcused absence will not be retaught even with an appointment. To request an excused absence, contact me by phone (text or call) or email a minimum of 24 hours prior to class or provide a doctor's note.

- Attendance will be taken at the top of every class.
- Arriving more than ten (10) minutes late without prior notification will be considered tardy.
- Three (3) tardy arrivals constitute an unexcused absence.
- All work must be completed regardless of absences.

Note that class participation is factored into the rubric for each project.

Assignment	Points	% of Grade
Lighting Observations	100	10
Photometrics 1: Section	100	10
Photometrics 2: Elevation	100	10
Photometrics 3: Diagonal	100	10
Light Lab Plot	100	10
Art Light Lab	100	10
Nature Light Lab	100	10
Music Light Lab	100	10
The Dutchman	100	20

Assignment Submission Policy

All assignments are to be printed out (if necessary) and handed in during class. If you are absent (excused or unexcused), all non-light lab work must be handed in on the usual due date by the beginning of class. For lab work, you must schedule a time to present your project to me as soon as possible, no later than the day of the missed class. Failure to do this will mean the assignment will be late and subject to the usual penalties.

Additional Policies

Please turn off cell phones during the class session. The use of laptops and tablets, even for note-taking, is discouraged due to their ability to distract and the light they emit which can change how one perceives theatrical light. Note taking by hand is always encouraged.

Course Schedule: A Weekly Breakdown

Week 1: Aug. 20

Lecture: Review the qualities of light and equipment. Discuss angle in depth. Where do the lights go and why do we put them there?

No assignment.

Week 2: Aug. 27

Lecture: Color theory.

Assignment: Take a photo of the 10 lighting states assigned (digital is fine). Every photo must not only show the light, but also the light on an object. Be considerate in your composition and execution of the photo. (Due on the 10th.)

Week 3: Sept. 3

LABOR DAY. NO CLASS.

Week 4: Sept. 10

Class work: Photometrics I: front to back. How to calculate beam spread and brightness using the section. Begin discussing how to build areas into systems. Bring all hand drafting supplies including colored pencils and assigned blank theatre plan and section, printed to ¼" = 1'-0" scale.

Assignment: Select appropriate fixtures and draft a system of front lights, back lights, top lights and footlights (DS only) focused on a 6'-0" figure in plan and section. Assign color and calculate the footcandles with and without gel.

Week 5: Sept. 17

Class work: Photometrics II: side to side. How to calculate beam spread and brightness using the elevation. Continue discussion of areas, systems and blending. Bring all hand drafting supplies including colored pencils and assigned blank theatre plan and section, printed to ¼" = 1'-0" scale.

Assignment: Select appropriate fixtures and draft one row SR to SL row of high sides using a pipe and ladder, one row of pipe ends, and a system of shinbusters on a boom all focused on 6'-0" figures in plan and elevation. Add walls as directed and draft a high side system (plan and elevation)

between the walls. Assign color and calculate the footcandles for each light with and without gel.

Week 6: Sept. 24

Class work: Photometrics III: Diagonals. How to calculate beam spread and brightness on the diagonal. Continue discussion of areas, systems and blending. Bring all hand drafting supplies including colored pencils and assigned blank theatre plan and section, printed to ¼" = 1'-0" scale..

Assignment: Select appropriate fixtures and draft one diagonal front light, one diagonal back light and one system of box booms all focused on 6'-0" figures in plan and section. Assign color and calculate the footcandles for each light with and without gel.

Week 7: Oct. 1

Lecture: What goes into a lighting package? Discuss the complete drafting package and paperwork as well as patching and control.

Assignment: Measure and draft a light plot and lighting section of the light lab in ¼" scale. Make a channel hookup including dimmer information.

Week 8: Oct. 8

Lecture and demo: Introduction to the light lab. Review how to focus lights. Learn how to record a cue and discuss tracking, cue-only and blocks. Bring a wrench and wear close-toed shoes.

Assignment: A painting will be assigned in class. Using whatever props or people you see fit, recreate the painting in the light lab in one lighting state. While a light plot is not required, you must organize your channel and unit information in a way that facilitates an efficient change-over between projects. Come prepared to discuss the artist as well as the assigned painting.

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Week 9: Oct. 15

Discussion: Art light lab presentation and critique. Discuss timing and linking cues for next week. Bring a wrench and wear close-toed shoes.

Assignments: Using the sunrise and sunset photos you took in your lighting observations, recreate a sunrise and sunset in the light lab. Time the cues thoughtfully. Use the same object you used in the photo. While a light plot is not required, you must organize your channel and unit information in a way that facilitates an efficient change-over between projects. Be prepared to show your photos in class.

Week 10: Oct. 22

Discussion: Nature light lab presentation and critique. Discuss writing effects for next week. Bring a wrench and wear close-toed shoes.

Assignment: A song will be assigned in class. Using whatever props or people you see fit, create at least 5 cues with one effect that illustrate the emotional arc of the music. While a light plot is not required, you must

	organize your channel and unit information in a way that facilitates an efficient change-over between projects.
Week 11: Oct. 29	**Discussion:** Music light lab presentation and critique. Discuss writing effects for next week. Bring a wrench and wear close-toed shoes. **Assignment:** Read The Dutchman and bring in visual research.
Week 12: Nov. 5	**Lecture:** Storyboarding with model photos. **Assignment:** Using your research as inspiration, storyboard The Dutchman.
Week 13: Nov. 12	**Lecture:** Working with an inventory and using areas to make a conceptual hook-up. **Assignment:** The Dutchman: make a conceptual hook-up and draft the area break down.
Week 14: Nov. 19	**Lecture and progress check in:** Critique last week's work. Discuss masking. **Assignment:** The Dutchman: add masking and worksheet rough plot.
Week 15: Nov. 26	**Discussion:** Critique last week's work. Discuss final paperwork. **Assignments:** Finish The Dutchman plot, section, and all paperwork.
Week 16: Dec. 7	**Final Exam:** The fully-drafted plot and section with a channel hook-up and instrument schedule.

Final Examination Date:

December 7, 2:00pm-4:00pm. Final project to be turned in via hard-copy to me by 4pm on this date. Late finals will not be accepted.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, Behavior Violating University Standardshttps://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public-

safety/online-forms/contact-us. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students.

The Office of Disability Services and Programs http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.htmlprovides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information http://emergency.usc.edu/*will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.