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# INTRODUCTION TO STAGE LIGHTING DESIGN

THEA 3540

## COURSE SYLLABUS

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### I. Required Texts:

J. Michael Gillette, Designing with Light

David Ives, Time Flies and Other Short Plays

**II. Course Objective:** The intent of this course is to provide an introduction to the basic elements of lighting design, and the technical skills required to execute such designs. Students will gain the practical skills necessary to be a functioning entertainment electrician, as well as a cursory understanding of design as it pertains to theatrical lighting. One should expect to leave this course with a basic understanding of electricity, qualities of light, color theory, and the various technological systems that are part of lighting show control.

**III. Units of Study:** The course is broken down into four study units. These units or modules will help to structure the course curriculum and help us make the most of our time in the classroom.

**The Course Modules are as follows:**

**A. Intro to Lighting Design as a Technical Art:**

To be a good designer one must first understand the tools at their disposal. This unit is designed as a basis for understanding the basic technical skills required to be a functioning professional in the world of entertainment Lighting.

1. History of lighting
2. Qualities and functions of light
3. Lighting Terminology
4. DMX512
5. Basic instrumentation and peripherals
6. Lighting Systems
7. Lighting Control and Programming
8. Power Distribution Overview

**B. Basic Electricity and Electrical Theory:**

An understanding and respect for the power of electricity is vital to the lighting designer.

1. Atomic Theory
2. Ohms Law
3. AC and DC electricity
4. Power Distribution Exploration
5. Load Balancing
6. Dimmer Systems

**C. Lighting Physics:**

This unit provides an introduction to the physics of light and the ways in which physics affects stage lighting equipment.

1. Reflection and Refraction
2. Lenses
3. Lamps and color temperature
4. Beam Angle

**D. The Design Process:**

Practical application of design prep work and execution, with emphasis given to programming and execution.

1. Script Analysis
2. Lighting research
3. Color Theory
4. Painting with light
5. Drafting the plot
6. ETC Programming Emphasis

**IV. Projects:** There are five major projects in this course some of which will be completed in class. Major projects are as follows:

- A. Light box
- B. Script Analysis Project
- C. Programming Presentation
- D. Drafting of Light Plot
- E. Final Design Project

**V. Lab Hours:** In addendum to the projects and coursework conducted in class students will be required to complete a minimum of twenty supervised lab hours, working in the electric department throughout the semester. Work schedules and call times will be communicated via the instructor throughout the semester.

VI. **Exams:** Both of the course exams, the midterm and final, are take home assignments and will thus be graded with extreme prejudice. Use of appropriate resources is allowed.

VI. **Grading system:**

**NO LATE PROJECTS WILL BE ACCEPTED**

## **Point System:**

Light box project	100pts
Programming Presentation	100pts
Script Analysis	50pts
Gorilla Lighting	100pts
VW Light plot	100pts
Lab Hours	150pts
Midterm	100pts
Final	100pts
Final Project	200pts

**Total      1000pts**

***A- 1000-900***

***B- 900-800***

***C- 800-700***

***D- 700-600***

# **COURSE POLICIES**

**PLEASE READ CAREFULLY- YOU ARE RESPONSIBLE FOR UNDERSTANDING THE FOLLOWING INFORMATION**

## **Exams:**

As before stated, both of the course exams, the midterm and final, are take home assignments and will thus be graded with extreme prejudice. Use of appropriate resources is allowed. These two exams make up more than fifty percent of your grade. The midterm will cover information taken from the lecture and reading material in first four units of study. The final will be a comprehensive exam covering portions of the first four units but focusing on the last two.

Make-up exams will not be scheduled. Students who miss an exam for reasons beyond their control may contact the instructor to make arrangements.

## **Attendance:**

Attendance is a vital part of this course and as such unexcused absences will not be permitted. Students are allowed a total of three absences for the semester. Use these wisely as a full letter grade will be deducted for each absence after the third.

## **Insurance/Safety:**

All students planning to participate in the extra credit work will be required to fill out and return the insurance form and the tool check form provided in the extended syllabus in the section marked forms. The scene shop and theatre are potentially dangerous if you are not aware of the dangers. **You will not be allowed to participate if this procedure is not completed.**

## **Homework:**

Lighting Design 2540 is a project oriented class. Most of the homework required will be reading of the text and studying for the exams. The projects will be given in parts, but will be required to be done at home.

## **Incomplete Grades:**

An “incomplete” grade may be requested by the student only in accordance with standard university policy. This usually means illness or extenuating circumstances requiring the student to be absent from campus for

a lengthy period will be reasons for granting an Incomplete grade, not poor performance. Usually the grade will be an "IF". Students expecting to earn an Incomplete grade must consult with the instructor and submit an agreement form recently instituted by the University. Normally, the grade must be made up by the end of the next quarter the student is enrolled. The grade will be "frozen" one year from the end of the quarter in which the course is taken. This is in accordance with university policy.

### **Student Responsibility:**

Deadlines are a big part of the theatre work ethic "The show must go on.". Meeting the deadlines outlined in the syllabus is the sole responsibility of the student. Late Work is Accepted but will be marked down one letter grade each day it is late. Announcements and changes will be given at the beginning of each class period. You are responsible for familiarizing yourself with all information contained in this syllabus and the reading assignments in the text.

### **Instructor Responsibility:**

The instructor will provide 180 minutes of teaching each scheduled class period via lecture hands-on training, discussion, and projects.

The instructor is willing to work with any student that may have circumstance arise that may stand in the way of completion of this course.

### **Academic Freedom and Professional Responsibilities:**

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. Faculty Code Policy #403 further defines academic freedom and professional responsibilities: <http://personnel.usu.edu/policies/403.htm>.

### **Academic Integrity – "The Honor System":**

Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all Utah State University students.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to

the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; and
- Is a welcomed and valued member of Utah State University.

### **Plagiarism:**

Plagiarism includes knowingly "representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

### **Grievance Process (Student Code):**

Students who feel they have been unfairly treated [in matters other than (i) discipline or (ii) admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code:

[http://studentlife.tsc.usu.edu/stuserv/pdf/student\\_code.pdf](http://studentlife.tsc.usu.edu/stuserv/pdf/student_code.pdf) (Article VII. Grievances, pages 25-30).

### **Students with Disabilities:**

The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (797-2444), preferably during the first week of the course. Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor.

In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."

**Withdrawal Policy and "I" Grade Policy:**

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

**Sexual Harassment:**

Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at 797-1266