

LIGHTING DESIGN – TH 433

University at Buffalo - *Syllabus* – Spring Semester, 2017

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Course Meets: Tuesdays/Thursdays: 10:30am-11:50am & ZDE Tech Schedule
Classroom: Alumni Rm. 195 or as announced

Course Description:

It is the job of the lighting designer to manipulate the controllable properties of light in order to create a desired effect that supports a given text and production approach. How the lighting designer plans to do this must be articulated orally and visually by them to their collaborators. Graphics must be drawn to communicate the placement of lighting fixtures that will be utilized to create the desired effects.

TH 433 Lighting Design is a course that exercises the lighting designer’s ability to communicate orally, visually, and graphically in the production process. Emphasis is given to visualization techniques and computer aided drafting. Graphic standards for light plots are exercised through theoretical projects and realized work. Design implementation is practiced through cuing sessions on various light boards, where students develop a language for programming while experimenting with advanced cuing techniques. Lighting for dance culminates the course, as students work in collaboration to light the Zodiaque Studio Dance Ensemble Concert. The student will leave the course with a portfolio that demonstrates their ability to provide appropriate information to the light shop, to attack advanced design problems, and work in collaboration. Students have access to the Alumni Arena 195C computer lab, and are asked to bring a laptop.

Learning outcomes and method of assessment:

<u>By the end of the course students should be able to...</u>	<u>Method of assessment:</u>
...implement WYSIWYG technology as a tool for pre-production communication.	Verbal critique of performance: light cues for MEN ON BOATS created by student in the virtual light lab.
...to utilize VECTORWORKS in the creation of light plots.	Review of a series of lighting schematics created by the student to determine if a fixed inventory has been used effectively to achieve the design objective.
...to utilize VECTORWORKS in the creation of light renderings.	Verbal critique of a portfolio. Evaluated on how well the given renderings exemplify the design idea as detailed in the written lighting statement.
...to discuss the radical changes made in the lighting field in the past twenty-five years and predict where the industry is going.	Written response to a book report and an oral presentation.
...describe how a lighting designer fits into the collaborative/production process by referencing significant lighting designers past and present.	Written response to an oral report including image set.
...realize a lighting design for dance and do so as part of a design ensemble.	Successful completion of production work for Zodiaque Dance Ensemble.
...communicate to a lighting programmer as well as program automated lighting.	Report on automated technology AND group work resulting in a “son et lumière” presentation.
...choose appropriate lighting fixtures and determine appropriate hanging positions.	Verbal critique of preliminary light plots for a flexible and proscenium theatre.

TH433 Assignments (units will not run sequentially):

UNIT 1: WYSIWYG Implementation for MEN ON BOATS	10%
UNIT 2: REP Plot for Dance Prelim	40%
Vectorworks – Building the Venue	
Vectorworks – Drafting the Plot	
Vectorworks – Renderings	
Zodiaque Dance Ensemble Lighting Design*	
*unavailable for ZDE Tech – discuss substitute assignment with instructor	
UNIT 3: Spotlight on a Lighting Designer Presentation	15%
Speed of Light – Written Report	
UNIT 4: Automated Lighting – Written Report	20%
“Son et Lumière” Design Project	
UNIT 5: AMERICAN IDIOT Design Prelim	15%

Extra Credit Assignment – Additional Vectorworks Light Plot with supporting materials including three renderings; project must be approved by instructor.

Class Policies:

Preparation and participation relate to your success in this class. All students are expected to honor due dates and to read the text in order to partake in class discussions. Problems in these areas will be reviewed on an individual basis with lower project and/or course grades as a possible consequence. The instructor may return assignments for revision or completion. This additional work does not exempt the student from meeting other deadlines. Please note that assignments not turned in on the due date will be marked down by one letter grade for each subsequent class period they are not turned.

Grade	Grade Points	Interpretation	About Incompletes: A grade of incomplete (“I”) indicates that additional course work is required to fulfill the requirements of a given course. Students may only be given an “I” grade if they have a passing average in coursework that has been completed and have well-defined parameters to complete the course requirements that could result in a grade better than the default grade. An “I” grade may not be assigned to a student who did not attend the course. http://undergrad-catalog.buffalo.edu/policies/grading/explanation.shtml#incomplete
A	4.0	High Distinction	
A-	3.67	High Distinction	
B+	3.33	Superior	
B	3.0	Superior	
B-	2.67	Superior	
C+	2.33	Average	
C	2.0	Average	
C-	1.67	Average	
D+	1.33	Minimum Passing Grade	
D	1.0	Minimum Passing Grade	
F	0.0	Failure	
>F<	0.0	Failure for Reason of Academic Dishonesty	
FX	0.0	Failure for Non-Attendance	

This course allows for two absences without penalty. Each subsequent absence will lower your overall course average by half of one letter grade. Arrival in class more than 15 minutes late, unless prearranged with the instructor, will be considered an absence. A "closed door" policy will be enforced if the instructor determines that late arrival constitutes a problem in this class. Sickness and weather delays do happen and this is why excused absences are provided. Please inform the instructor in case of crisis or emergency in order for appropriate considerations to be made.

Academic Integrity: Academic integrity is a fundamental university value. Through the honest completion of academic work, students sustain the integrity of the university while facilitating the university's imperative for the transmission of knowledge and culture based upon the generation of new and innovative ideas. Please review the full policy at: <http://undergrad-catalog.buffalo.edu/policies/course/integrity.shtml>.

Accessibility Resources: Students with disabilities may require accommodations to ensure full participation in a class. A student requesting such accommodation at any time during the term should be referred to [UB's Accessibility Resources Office](#) where an assessment can be completed and appropriate accommodations determined. Students with such documented accommodations should be instructed accordingly.

Department Disclosure Statement: Training and study in theatre and dance occasionally involve material that can be personally disturbing, even offensive. This includes issues of gender, race, sexuality, religion, and various moral concerns. Trust is an essential aspect of all learning environments. If you experience any problems with these issues during the course, please speak privately to your instructor.

REQUIRED READING

The Automated Lighting Programmer's Handbook, 3rd Edition by Brad Schiller

Publisher: Focal Press; 3 edition (October 5, 2016)

ISBN-10: 1138926248

ISBN-13: 978-1138926240

Performance Lighting Design by Nick Moran

Publisher: Bloomsbury Methuen Drama (November 30, 2007)

ISBN-10: 0713677570

ISBN-13: 978-0713677577

The Speed of Light: Dialogues on Lighting Design and Technological Change by Linda Essig

Publisher: Heinemann Drama (October 1, 2002)

ISBN-10: 0325005087

ISBN-13: 978-0325005089

RECOMMENDED READING

Photometrics Handbook by Robert C. Mumm

Publisher: Broadway Press; 2nd edition (October 15, 1997)

ISBN-10: 0911747370

ISBN-13: 978-0911747379

Additional reading/listening material:

Men on Boats by Jaclyn Backhaus

American Idiot; book and lyrics by Billie Joe Armstrong, book by Michael Mayer, music and lyrics by Green Day
Supplemental articles, reviews, and videos

TH 433 supplies are provided by the lab fee. This may include, but are not limited to the following:

Field Template Rules
Beam Spread Template
Circle Template
Compass
Protractor
T-Square
Triangles (30deg., 45deg./60deg.) or Adjustable triangle
Architectural Scale Rule
Mechanical Pencils (.3H, .5HB, .7HB)
Drafting Paper (vellum) – (36" x 10yds. suggested)
Drafting tape/masking tape
Eraser (Mars plastic)
Erasing Shield
Swatchbooks
8 ½"x11" black paper
Set of colored pencils
18"x24" drawing or sketch paper
kneaded eraser
soft charcoal sticks (compressed charcoal – NOT pencils)
Tortillon (Blending Stick)
aerosol hairspray or spray fixative
Swatchbooks
Crescent Wrench or Altman Stagehand Wrench, with safety chain or tie-line
Vectorworks Spotlight, Free Student Software -<http://student.myvectorworks.net/>
Access to WYSIWYG Software by CAST
Access to Lightwright Software
Access to plotter
Color printing

SAMPLE CLASS NOTES AND STUDENT WORK

TH 433_Automated Lighting Demo and Son et Lumière Project_2.14.17

Professor Lynne Koscielniak, Undergraduate Teaching Assistant Alison Weinberger

10:30am – Understanding the Fixture with the Master Electrician

- At the unit – pieces and parts – what they are called, what they do

10:45am – Basic Console Operations

- Tour the screens
- Tour the board
- Make lights move and show off all the parameters that can be adjusted
- PALETTES & PRESETS – Working with a Programmer – Lynne and Alison Mock Cuing Session

11:00am – Patching and Addressing

- How did we get the light board to talk to the fixture in the first place?

11:15am - Why do you work in tracking mode?

11:30am – Effects engine demonstration. How has the effects engine been used in dance season?

HOMEWORK – AMERICAN IDIOT is on reserve in 195C. Listen to track 1. Bring 1-3 research images (printed out and cited) that could inspire a preset. Due: 2/16/17

Step 1 – Feb. 16 – Image to Preset exercise in class
Based on an image inspired by the song *American Idiot*, program 1-3 presets as time allows.
Use the focus palettes created by Lynne and Alison.

Time	Designer	Programmer
10:40	Logan	Alex
10:45	Gina	Hayden
10:50	Melissa	Jeremiah
10:55	Joe	Ariel
11:00	Alex	Keith
11:05	Hayden	Sarah
11:10	Jeremiah	Emily Walker
11:15	Ariel	Jess
11:20	Keith	Emily Williams
11:25	Sarah	Logan
11:30	Emily Walker	Gina
11:35	Jess	Melissa
11:40	Emily Williams	Joe

Step 2 – Feb. 21 – Come to class with a prepared cue sheet for the time you have been given. It can be one look with an effect that runs the whole time, 3 looks that transition at key moments, etc.

Time in Music	Designer	Cue Block
0-:14	Alex	1-10
:15-:28	Hayden	11-20
:29-:42	Jeremiah	21-30
:43-:56	Ariel	31-40
:57-1:10	Keith	41-50
1:11-1:24	Sarah	51-60
1:25-1:38	Emily Walker	61-70
1:39-1:52	Jess	71-80
1:53-2:07	Emily Williams	81-90
2:08-2:22	Logan	91-100
2:23-2:36	Gina	101-110
2:37-2:50	Melissa	111-120
2:51-3:02	Joe	121-130

Time in Track (when the cue is called)	Cue Number	Fade Time	What is it? Feels like... Artistic objective	Preset	Notes

Presets designed and programmed by students for AMERICAN IDIOT.

Palettes served as foundation for sound and light show.

Console: ETC Ion, VL 3000 Fixtures

