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Fall 9-1-2022

### THTR 560.01: Graduate Light Design

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# THTR 360-01

## Graduate Light Design, Fall, 2022 – 3 Credits

Monday, Wednesday, 10:30 – 11:50am

Missoula Campus, McGill 213

Final Exam Period – Friday, December 16th 8:00-10:00am

Prerequisites: THTR 102 and THTR 202

The University of Montana, School of Theatre & Dance

Mike Post

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Office Hours: 12:30-1:50 Tuesday and Thursday (Zoom or in person)

Additional Zoom hours available by appointment.

Please note that I am often around the department either in a shop or in a theatre. I'm not hard to find...

Lighting, while younger than other design elements, has had a long history of aiding in storytelling for Theatre. In this class, students will become more aware of how light works in a production and how they can use it to help support storytelling. Emphasis will be placed on communication of ideas, how to use the technology and details for execution of the design.

### ***Textbook:***

There is no textbook required for this class. Students may find the following helpful:

The Photometrics Handbook by Robert C. Mumm

The Backstage Handbook by Paul Carter

Both of these in addition to Internet research and free software options are useful as references to the material for the class.

For this class, Students will need to use Vectorworks Spotlight CAD software and Lightwright. The computers in McGill have this software available. Should students wish to use their own equipment, Vectorworks Educational version is available for free while you are a student. Lightwright has a Student License option that can be used at an indeterminate cost.

Vectorworks Education Version:

<https://www.vectorworks.net/en-US/education>

Lightwright Licensing:

<https://www.lightwright.com/products>

While students are welcome to store information on the class computers, it will be deleted at the end of the semester. Also computers are notorious for 'losing' information and the student is expected to account for this. To that end, 'the computer ate my homework' is not an acceptable excuse.

### ***Outcomes:***

- Learn the purpose and effect of Lighting as a Design Element for Theatre
- Learn technical skills and equipment for crafting light in a theatre
- Gain skills and vocabulary to convey ideas in discussing light
- Learn a process for designing Light to use a base to build on
- Be able to generate all paperwork necessary for the execution of a lighting design
- Study trends in lighting design and established professional artists in the field

***Grading and Assessment:***

Students will be graded by their performance in completing the assigned exercises. All such will be submitted electronically or executed for evaluation by the class. Assessment of the work will be based on the student’s ability to follow instructions, attention to detail and precision. Incomplete work will result in a loss of 10% of the score off the top. Late work will be downgraded by 2% per day it is late.

***Assignments***

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**Lighting Morgue (50 pts.)**

Use internet research or even your cell phone camera to submit interesting images of light. These can be uploaded to Moodle so the rest of the class can see them. *REMEMBER: Anything on the Internet potentially belongs to someone and using it for your work in a public forum is a potential Intellectual Property infringement and may get you in legal trouble.* Using images in a personal collection is welcome.

On the first day of class we will find 2 such images to start the process. After that, you are responsible for 2 more each week to be uploaded by the beginning of class on the day they are due. At the end of the semester you will have several images. In the class schedule are topics as a focus for the images. **Remember, it’s not the object, but the light associated with the object.** For instance, you don’t want a picture of a car, but the light from headlights or taillights is good. Something lit by headlights is even better. Don’t steal from each other – find your own. Choose 1 image each week and detail in a paragraph why you find it interesting

**Drafting a Light Plot (50pts)**

You will be given a plot and a CAD file of the theatre with its electrics. Recreate the plot in Vectorworks making sure you have all the information required. The exercise is to familiarize you with Vectorworks enough to create a Light Plot and learn what information is necessary to have on it.

**Color Play (50 pts.)**

Use Matt Kizer’s Color Lab to create pictures of light suggesting the following:

A Hot Desert

Mount Everest at Night

The Gates of Hell

The Bottom of the Ocean

Walking with the Sun at your Back

Jealousy

<https://scenicandlighting.com/colorlab/>

Use Screen capture to save an image. Start with one and bring it's brightness to full. Turn off the other two. Look through your gel book and find a color the appears the most similar and make a note of it. Do the same for the other two and repeat the process for two more of your looks as you build them.

Then in the Light Shop, look for the gels that match what you chose. If you can't find the exact number, look for something similar. Place the gels in the corresponding lights and build a look to try to recreate what you did with the Color Lab site. Take pics of what you created.

You will submit your screen captures, your gel choices and your pics from the Light Lab. You will also type a paragraph discussing observations you make about how the light translated from the screen to actual light. How close were your initial gel choices? How did intensity work in building the look?

### **Basic Wash (75 pts.)**

Using what we learn about Photometrics, develop a basic wash in Vectorworks to determine how many of a given unit will it take to evenly cover a 50 foot wide wall from straight on.

### **Real Wash (75 pts.)**

Extending into the 3<sup>rd</sup> dimension from the basic wash, determine how many of a given instrument it will take to cover a 50 foot wide by 30 foot deep stage. Keep in mind you need to allow for coverage at the height of an actor.

### **Channel Challenge (50 pts.)**

Designers often don't need to worry about how a plot is executed. That's what the Master Electrician is for. However, they should know if their plot is actually possible, especially in power availability. With a given plot, make choices about how you can gang units together to meet available power.

### **Base Analysis (50 pts.)**

Work through a given script and generate a Base Analysis (particulars for a scene/section of the script). Start with an Statement of Approach, "This play is about ??? It's overall mood is ??? At the end of the play we should feel ???" Sections can be broken out in several ways: Scenes, Motivational changes, time shifts. Wherever you feel you need to describe a different context. For each scene/section comment on:

Location

Time of Day

Season?

Dramatic Action (Not physical action. What happens in the scene and what do we learn from it? Brief – not a full blow by blow.)

### **Cue List (50 pts.)**

Work through the same script and generate a list of cues from beginning to end that details how you plan to use light in the show. Each cue must have at minimum:

Cue number

Page

Description

Trigger (what can the Stage Manager use to place the cue in their calling script?)

### **Simple Plot (100 pts.)**

With the script *The First Fireworks*, design a plot to provide light plot for a performance in a given space and inventory. Make choices based on what you know about the equipment and make sure they stage is completely covered for all blocking possibilities. You will need to submit:

A Base Analysis

A Cue List

A Vectorworks file with your Light Plot

Lighting Research, OR Two Storyboards. You must show a difference from the early in the play and towards the end.

### **Postcard (100 pts.)**

Recreate the light in a given piece or art. We'll do this in the Light Shop. You are free to use any equipment available in the shop. The class will view your results react to them. The artwork will have a central figure you will be focusing on. No need to light a background.

### **Storyboards (100 pts.)**

Find a silhouette to import into Photoshop. Use painting tools to apply highlight and color to model what light might look like if lit by:

A torch

A cool winter sun

Light through a window

An emotional context of your choosing

### **Show Critiques (50 pts each 100 total)**

See *Cabaret* and *Call of the Wild* this semester. Write a 2 page double spaced 12 point Times New Roman (or equivalent) paper for each critiquing the play with a focus on the lighting. You can start with one or two paragraphs generally discussing how you felt about the production and then finish with more specific information about the light and how it affected your viewing through the lens of the purposes: We will also discuss this in class. Your paper is due before the discussion. Late papers will not be accepted

### **Final Project (150 pts.)**

With *Flyin' West*, develop a complete paper package to detail a lighting design. The package must include:

Light Plot

Hookup

Visuals to help you describe key moments whether drawn via storyboard or research (at least 6)

Base Analysis

Cue List

**Total – 1000 Points**

## Graduate Study Project

In addition to the above, students will research and report on the career and aesthetic of an established designer from the field. Lighting design has been heavily influenced by working professionals and this has led to trends and language that the student needs to be aware of. Stanley McCandless is thought of as the progenitor of modern lighting design, but his student Jean Rosenthal drastically changed the landscape for the aesthetic. Other designers over time such as Peggy Eisenhauer, Tharon Musson, Victor Tan, Tom Skelton and Jennifer Tipton have had significant impacts. Students will choose a designer to be approved by the instructor and research their career and approach to design. They will present their findings in class.

### Course Schedule:

Please note this is subject to change as the course progresses.

|           | <i>Date</i> | <i>Topic/Exercise</i>  | <i>Exercise</i>   | <i>Other</i>  |
|-----------|-------------|--|---|---|
| Monday    | Aug 29      | Intro to class, tour the CAD Lab - What Is Light? What are its purposes? | Moodle: Morgue Research   | <i>Morgue: Sunrises</i>                                 |
| Wednesday | Aug 31      | Properties of Light  | Describe the Light in Settings  |   |
| Monday    | Sep 5       | LABOR DAY – No Class   |   |   |
| Wednesday | Sep 7       | More about properties – the truth about color                            | Color Lab demo. Light Lab colors and angles – wear something colorful | <i>Morgue: Angry Sunsets</i>                            |
| Monday    | Sep 12      | Types and Purposes of Equipment.<br>Vectorworks Basics                   |   | <i>Morgue: Cool Night</i><br><b>Mike Out Zoom Class</b> |
| Wednesday | Sep 14      | Photometrics – how to know what a light can do.                          | Photometric Math  | <b>Mike Out Zoom Class</b>                              |
| Monday    | Sep 19      | Beamwright. In Class Work – Drafting and Color Play                      |   | <i>Morgue: Caves</i><br><b>Mike Out Zoom Class</b>      |
| Wednesday | Sep 21      | In Class Work – Drafting and Color Play                                  | Read <i>The First Fireworks</i> on Moodle                             | <b>Mike Out Available on Zoom</b>                       |
| Monday    | Sep 26      | Photometrics in real life, Low Angle Positions                           | Assign Wash Projects  | <i>Morgue: Trees</i>                                    |

|           |        |  |  |  |
|-----------|--------|--|--|--|
| Wednesday | Sep 28 | Present Color Play. In Class Work on Wash Projects                                       |  | <b>Color Play Due</b>                                    |
| Monday    | Oct 3  | What can your Theatre do? Power and other capabilities.                                  | Assign Channel Challenge and Postcards | <i>Morgue: Heat</i>                                      |
| Wednesday | Oct 5  | Shop work on Postcards and Channel Challenge   | Assign Base Analysis and Cue List      | <b>Channel Challenge Due</b>                             |
| Monday    | Oct 10 | Shop work on Postcards and Channel Challenge   | <b>Present Postcards</b>               | <i>Morgue: Daytime Windows</i>                           |
| Wednesday | Oct 12 | Analyzing a Script. Discuss <i>The First Fireworks</i> Discuss Base Analysis and Cue-ing | <b>Present Postcards</b>               |  |
| Monday    | Oct 17 | Methods of Design – Modified McCandless and Lighting Systems                             |  | <b>Wash Projects Due</b><br><i>Morgue: Night Windows</i> |
| Wednesday | Oct 19 | Storyboard Basics  | Photoshop Exercises                    |  |
| Monday    | Oct 24 | In Class Work on <i>The First Fireworks</i>  |  | <i>Morgue: Flame</i>                                     |
| Wednesday | Oct 26 | Discuss <i>Cabaret</i> , In Class Work on <i>The First Fireworks</i>                     |  |  |
| Monday    | Oct 31 | Cue-ing to Music - Programming 101 Techniques – Cues                                     |  | <i>Morgue: Car</i>                                       |
| Wednesday | Nov 2  | Programming 101 Techniques – Cues  |  | <b><i>The First Fireworks due</i></b>                    |
| Monday    | Nov 7  | Shop work on Let the Music Play.   |  | <i>Morgue: Anger</i>                                     |
| Wednesday | Nov 9  | Shop work on Let the Music Play.   | <b>Present Let the Music Play</b>      |  |
| Monday    | Nov 14 | Dance Lighting – what’s different?   | <b>Present Let the Music Play</b>      | <i>Morgue: Joy</i>                                       |
| Wednesday | Nov 16 | Dance Lighting – Talking with Choreographers   | Read <i>Flyin’ West</i>                |  |
| Monday    | Nov 21 | Discuss <i>Call of the Wild</i> . Revisit Design – From Analysis to Plot.                |  | <i>Morgue: Sorrow</i><br><b>Wild Critique Due</b>        |

|               |                                     |  |  |                            |
|---------------|-------------------------------------|--|--|----------------------------|
| Wednesday     | Nov 23                              | Thanksgiving Travel Day                                      |  | NO CLASS                   |
| Monday        | Nov 28                              | Discuss <i>Flyin' West</i>                                   |  | <i>Morgue: Harsh</i>       |
| Wednesday     | Nov 30                              | In Class Work – Final Project                                |  |                            |
| Monday        | Dec 5                               | In Class Work – Final Project                                |  | <i>Morgue: Celebration</i> |
| Wednesday     | Dec 7                               | In Class Work – Final Project                                |  |                            |
| <b>Friday</b> | <b>Dec 16<br/>8:00-<br/>10:00am</b> | Present Final Project.<br>Submit Final Projects<br>by 5:00PM |  | Scheduled day of finals.   |

### *Attendance*

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#### **From UM President Seth Bodnar:**

The wide availability of safe, effective vaccines to combat COVID-19 means that we are able to continue full in-person learning again this semester. The Office of the President urges every member of the UM Family to get vaccinated (and receive a booster shot) if you haven't done so already. Vaccination provides the best means of protecting yourself – and others in our UM Family – from the risk of COVID-19.

Please visit <https://www.umt.edu/curry-health-center/corona-virus.php> for the latest health/safety information, as well as campus communications and plans about the global health pandemic.

Attendance in the class is mandatory. Absences must have a proper excuse such as a note from the Curry Center or other documentation. Otherwise, they will count off 2% of your grade per absence. Students who are absent, excused or not, will be responsible for making up missed material using documentation posted in Moodle.

Exceptions will be made to the above policy for students who are in isolation due to Covid 19 or Monkeypox.

### *University and School Policies*

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#### **Academic Misconduct and the Student Conduct Code**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at [www.umt.edu/student-affairs/community-standards/default.php](http://www.umt.edu/student-affairs/community-standards/default.php).

#### **School of Theatre and Dance Policies**

All Theatre & Dance students must have an in-depth knowledge of the practices and procedures outlined in the School of Theatre & Dance Student Handbook. The Handbook is available online at <https://www.umt.edu/theatre-dance/handbook.php>.



There is inherent risk involved in many Theatre & Dance classes as they are very physical in nature. Please proceed through class, shop time, or rehearsal with caution. Always be mindful of your personal safety and the safety of others. Students participating in class/shop/rehearsal/performance do so at their own risk.

Due to safety considerations, at no point during a student's time spent in class or serving on a production (in any capacity) should non-enrolled persons be guests of that student without my consent. Presence of such unauthorized persons in a class, shop, or any backstage/off-stage area will negatively affect a student's grade.

**From the EO/AA Office**

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equality (ODE). If you think you may have a disability affecting your academic performance, and you have not already registered with ODE, please visit them in Aber Hall. I will work with you and ODE to provide an appropriate modification.