THEA 3305
Lighting and Sound Principles
Fall 2021

Instructor: Marissa A. Díaz, MFA
Email: mddiaz2@utep.edu
Cell Phone: 915.276.3124
Office Phone: 747.7851
Office: Fox Fine Arts D172
Classroom: D180
Class Time: T|R 9:00am - 10:20am
Credits: 3

Office Hours: By appointment only on: W & F 8:30am-10am | Virtual meetings may also be scheduled

Required Text:

Scene Design and Stage Lighting
By W. Oren Parker, R. Craig Wolf, Dick Block
Publisher: Wadsworth Publishing; 10th edition
ISBN-10: 1111344434

Recommended Text:

Technical Theater for Nontechnical People
By Drew Campbell
Publisher: Allworth; Third Edition (November 22, 2016)
ISBN-10: 1621535428
Technology Requirements:
Microsoft Word/Google Docs and PDF (PDFs may be generated through Microsoft Word/Google Docs) will be needed for the class. If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP’s Microsoft Office Portal link below:
https://www.utep.edu/technologysupport/ServiceCatalog/SOFTWARE_PAGES/soft_microsoftoffice365.html

Course Description:
This course will provide students with essential knowledge, skills, and practice of lighting and sound technology in the world of theatre. Students will apply the fundamental concepts, applications, and vocabulary for elements of theatrical lighting and sound technology.

Course Objectives:
• Students will learn and understand the basic knowledge and practice of theatre lighting and sound.
• Students will learn about the fundamental processes, organization, execution, safety procedures, mechanics, and equipment of lighting and sound technology.
• Students will have exposure to hands on activities that will demonstrate understanding of concepts in lighting and sound design.

Course Policies:
• It is the responsibility of the student to fulfill all the course requirements to the best of their abilities. If a student is unclear about anything on the syllabus, they should seek clarification from the instructor.
• Timeliness and presence are crucial in the performing arts; however, life events happen, and students will be allowed (3) unexcused absences without penalty towards your final grade in the course IF the student does not miss a project presentation day or exam. Punctuality is also crucial; therefore, if you enter the classroom 15 minutes late or more, you will be counted as absent.
• Absences that will be excused are those for students representing the university in officially recognized university activities. The students must provide the instructor with written notice from the sponsoring faculty or staff member prior to the event. In addition, a student may also be excused for observance of a religious holy day and for the time needed to travel for said holy day.
• If you do not feel well, are experiencing symptoms of COVID-19, or test positive for COVID-19, PLEASE STAY HOME. Accommodations can be made so the student may log into class and hear the lectures should they feel well enough to sit through class remotely during these situations.
• Students are expected to maintain a classroom environment, which is conductive to learning. To assure all students have an opportunity to benefit from time spent in class, students are prohibited from using cell phones in class unless otherwise approved by the instructor.
• Students may take notes on iPads or tables with a pen or stylus, but usage of laptops is not permitted.
• Late work will not be accepted. If a deadline is missed, the student will receive a zero as a grade for that project or assignment.
• Students must behave in accordance with all rules put forth by the Handbook of Operating Procedures of the University of Texas at El Paso.
**Course Communication:**

- **Email:** UTEP e-mail is the best way to contact me. I will make every attempt to respond in a timely manner to your e-mail within 24-48 hours of receiving. Please be sure to e-mail me from your UTEP student account and include the course number or title in the subject line, along with your first and last name.

- **Discussion Board:** If you have a question that you feel other students may also have, please feel free to post it on the Help Board of the discussion boards inside Blackboard. Please respond to other students’ questions if you have a helpful response or solution.

- **Announcements:** Please check Blackboard announcements frequently for updates, deadline changes, or other important messages.

- **Cell Phone:** You may text me; however, you must include your name and which class you are in. You may contact me via cell at any time during the week, but not on weekends unless it is an emergency.

- **Video Calls/Meetings:** Video calls or meetings may be set up as needed throughout the semester.

**Netiquette**

As we know, sometimes communication online can be challenging. It’s possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep these netiquette (network etiquette) guidelines in mind. Failure to observe them may result in disciplinary action.

- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of others’ ideas.
- Respect and courtesy must be provided to classmates and to the instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else’s message, address the ideas, not the person. Post only what anyone would comfortably state in face-to-face situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted online in these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space.

**Sharing of Material on Social Media**

All the materials—written, audio and visual—shared within this course remain within this course. You can share on your social media your own materials if the only person that appears or the only author is you. If you want to share content that includes or is co-authored with other classmates, you need to write them AND the instructor to discuss the authorization.
Helpful Resources:

**Technical Support**
If you do not know how to use Blackboard or have technical issues with Library access –
visit the Technology Support Center located in the Library at Room 300. You can
contact the Help Desk via email, helpdesk@utep.edu, by phone 747-5257. Hours are
M-F 7a-8p, Sat 9a-10p and Sun 12-4pm.

**Students with Disabilities Policy:**
If you have or suspect a disability and need an accommodation, you should contact
The Cass Office at 747-5148 or at cass@utp.edu or go to Room 106 Union East Building.

**UTEP Writing Center**
To get help with writing please check out the writing center – their procedure has
changed due to the virus and you must plan ahead. https://www.utep.edu/uwc/

**Student Health Center**
UTEP Student Health Center is here to meet the health care needs of all students so
they can focus on their studies. As a student you have paid a medical service fee that
allows you to be seen at the clinic as often as needed. Office visits are low cost as well as
medications, supplies and any needed lab tests (747-5624).

**University Counseling Center**
The UTEP University Counseling Center located at 202 Union West can assist you to
decide on a career or work through personal concerns. They provide confidential
counseling services, assist with stress management, and offer an after-hours crisis
support line (747-5302).

Copyright Statement https://www.copyright.gov/title17/92chap5.html
Some of the materials in this course are copyrighted. Copying of textbooks is not “fair use"
under the Copyright Act. Your cooperation is expected.

Scholastic Integrity:
Academic dishonesty is prohibited and is considered a violation of the Handbook of Operating
Procedures: Student Affairs. It includes, but is not limited to, cheating, plagiarism, and
collusion. Cheating may involve copying from or providing information to another student,
possessing unauthorized materials during a test, or falsifying research data on laboratory
reports.

Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of
another as ones' own. Collusion involves collaborating with another person to commit any
academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is
unacceptable and will not be tolerated. All suspected violations of academic integrity at The
University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict
Resolution (OSCCR) for possible disciplinary action. To learn more, please visit

*I expect all your work to be original, as I do read all of your work.*
COVID-19 Precautions:
Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID 19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

Subject Matter:
The performing arts have a power to stir strong emotions, or possibly touch on subjects you might not feel comfortable watching or reading. If you have concerns about any of plays or discussing specific subjects, please reach out to me as soon as possible to discuss possible accommodations. As I will respect your individual rights to choose what plays you work on, I expect all our discussions—including any that may occur outside of class—to be conducted in a respectful and professional matter.

Disclaimer:
Information contained in this syllabus, other than the grade and absence policy, is subject to change with advance notice, as deemed appropriate by the instructor to enhance learning opportunities. All changes will be clearly communicated.

Projects:
Students are responsible of turning in the assignments on time, even if they may be absent on the due date. Students may turn in projects early, if approved by the professor. Projects are due at 11:59pm on the due date on Blackboard, unless otherwise noted by the professor. Detailed project and assignment instructions will also available on Blackboard as they are assigned. Please give yourself plenty of time to do the project and ask questions ahead of time. If you ask questions the night before the project due date or the date the projects are due, you may not see the reply until after the deadline.

- Late work will not be accepted.
- If work appears it was done as a group or with a partner, you will all receive a zero and be turned over for your student conduct.
Project #1: Sunrise & Sunset Observation Paper
Students will observe and review a sunset and sunrise. You will write about how the sunlight looks in the sky and how it affects the world around you. Students will submit a (1 ½ - 2) page, double spaced paper using 12pt. Times New Roman font that includes descriptions on colors in the skies, highlights & shadows, textures, and feelings that this phenomenon offers you. **You must see both sunset and sunrise to compare the difference of the two.** Please be specific about the day, time, and location you are observing. Students must use terminologies and subjects learned in class.

Project #2: DMX Addressing
Students will be provided with an Instrument Schedule for (2) electrics of LEDs and moving lighting fixtures. Students must research each type of fixture in order to determine the number of addresses required per light and assign each light with a universe and address. Students will submit an Instrument Schedule with the addresses/universe columns assigned and populated, along with the data sheets for each fixture to demonstrate correct addressing and resourcefulness.

Project #3: Instrument, Accessories, and Power Organization
Students will create below list from the provided plot of (2) electrics on the Blackboard Projects folder and submit via Blackboard:

1. Instrument, Color and Gobo breakdown and Twofer count organized by hanging position, turn in on Blackboard and bring a copy to class.
2. Figure out the weight for each position/line set if it were a single purchase counterweight system. Assume the counterweight bricks are **20 lbs.** each. And list how many bricks you need for each electric.
3. Circuit Plan Drawing: This portion is simple. Draw on the plot a plan for Twofer circuit runs by bracketing/connecting two lights to indicate use/count of Twofers.
   *You can scan or take a picture of the drawing (digital or paper) and turn into Blackboard. Be sure it is clear and legible if it’s a picture.*
   *#1 and #2 can be excel or word doc in the same document and turn into Blackboard.*
   *Be sure all three above are in one file. Most easy way and good practice is to turn all of the files to PDF and combine them. You can certainly use Word or Excel to generate the PDFs.*

Project #4: Picturization
Students will select a color photograph which they connect with emotionally. **Do not select photos with theatrical lighting.** Select (2) words that describe your feelings about the photograph. Using the class light plot, students will light the photograph with one light cue with “no color” using a maximum of (4) lights. The cue should not duplicate the photograph, but rather the emotion that you get from it. Students will submit a marked up light plot with the lights they intend on using – marking intensities next to the 4 they will use. Students will present their photograph and lighting intent to the class. Presentation days will be assigned randomly and take place over 2 class days.
Project #5: Sound Foley Project
Recording a sound “Foley” project.
1. Student will use a phone recording app or laptop to record 4 sound effects.
2. Each sound effect must be long enough to be able to identify what it is.
3. As example video states, be creative and use what you have already around the house.
4. Please upload your 4 sound effects onto Blackboard.
5. *If you want to go all out, create a video that goes with your sound effect. Each video will receive 5 extra credit points.*

Project #6: Sound System Diagram
Students will create a diagram of a sound system. Students will submit the diagram by hand drafting or CAD, but it must be legible and must indicate signal flow using arrows. The diagram must include all of the following equipment:
1. Vocal Microphone (one must be wireless, one must be wired)
2. Microphone for a piano
3. One instrument (guitar, keyboards etc.)
4. DI
5. Pre-amp
6. Mixer
7. Computer with Qlab
8. EQ
9. Two Loudspeakers
10. Amps for the loudspeakers

Extra Credit Options:

1. Lighting/Sound Shop Hours:
Students may come in and volunteer hours in the lighting and sound shops and earn extra credit points. Each hour worked is (2) points, for example: if you volunteer (10) hours, you will receive 20pts. The shop hours are Monday through Friday from 12:30-5:00pm at the Wise Family Theater or the June Sadowski Kruszewski Studio Theater. Attached to the syllabus is a time sheet where you can fill out your name and hours. If you are putting in shop hours for extra credit, your time sheet must be stored in the binder at the scene shop. Should your time sheet be lost or misplaced, you will need to start your hours over.

***Your last day to complete any hours for extra credit is December 2nd, the last day before dead day***

2. Build a Lighting Practical
Students who choose to may build a lighting practical for an additional 50 points. The following criteria must be met:
   a. It must be connected to an Edison plug
   b. It must have a lamp
   c. It must have a switch
   d. It must work when presented to the instructor

***The final day to present this working practical is December 2nd, the last day of class.***
3. Lighting and Sound Design Show Review Paper

Should students feel comfortable at this time, they may attend (1) UTEP production of your choice. The following productions will be produced this semester: Titanic at the UTEP Dinner Theater, Keeping Distance and Super at the June Sadowski Kruszewski Studio Theater, and A Christmas Carol en la Frontera at the Wise Family Theater. Students must submit a (2) page minimum, double spaced review using 12pt. Times New Roman font that includes observations and critiques on the functions of lighting and sound design for one of these productions. A show ticket and program must also be included in the submission of this assignment. Terminology from class and the textbook is expected within the review.

***The final day to submit this review is December 2nd, the last day of class.***

Grading Breakdown:

- Project #1: 50 pts
- Project #2: 100 pts
- Project #3: 100 pts
- Project #4: 125 pts
- Project #5: 100 pts
- Project #6: 125 pts
- Quiz #1: 50 pts
- Quiz #2: 50 pts
- Exam #1: 150 pts
- Exam #2: 150 pts

**TOTAL POINTS:** 1000 pts

**Extra Credit:**
- Shop Hours: 50 pts
- Lighting Practical: 25 pts
- Review Paper: 25 pts
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</thead>
<tbody>
<tr>
<td>T-08/24</td>
<td>Course Introduction</td>
<td>Review Syllabus</td>
<td>What is Lighting Design? Who is on Team Lighting?</td>
<td>Ch. 14</td>
<td>Assign Project #1</td>
</tr>
<tr>
<td>Th-08/26</td>
<td>Who is on Team Lighting?</td>
<td>Real World Lighting Applications</td>
<td>Qualities of Light</td>
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<tr>
<td>T-08/31</td>
<td>Lighting Technology: History of Lighting</td>
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<tr>
<td>Th-09/02</td>
<td>Lighting Technology: Fixtures</td>
<td>Fixture Parts</td>
<td>Lamps and Accessories</td>
<td>Datasheets</td>
<td>Ch. 17, 18, 23</td>
</tr>
<tr>
<td>T-09/07</td>
<td>Lighting Technology: Color Theory</td>
<td>Color Gels</td>
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<td>Ch. 16</td>
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<tr>
<td>Th-09/09</td>
<td>Lighting Technology: Rigging</td>
<td>Hang and Focus</td>
<td>Knots</td>
<td>pgs. 151-152, 213-222, 434-435</td>
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<tr>
<td>T-09/14</td>
<td>Lighting Technology: Power and Dimming</td>
<td>Electricity and Cables</td>
<td>Cable Coiling</td>
<td>Ch. 21, Ch.22</td>
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<tr>
<td>Th-09/16</td>
<td>Lighting Technology: Channels</td>
<td>DMX</td>
<td>Universes &amp; Patching</td>
<td>Ch. 21</td>
<td>Assign Project #2</td>
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<tr>
<td>T-09/21</td>
<td>Lighting Technology: Movers and LED's</td>
<td>Consoles</td>
<td></td>
<td>Ch. 13</td>
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<tr>
<td>Th-09/23</td>
<td>How to Read a Plot and Paperwork</td>
<td>Ch. 20 (pg. 419-433)</td>
<td>Assign Project #3</td>
<td>Project #2 Due</td>
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<tr>
<td>T-09/28</td>
<td>Design Choices/Process</td>
<td>Design Choices/Process</td>
<td>Assign Project #4</td>
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<td>Project #3 Due</td>
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<tr>
<td>Th-09/30</td>
<td>Theatre Tour</td>
<td>Focus &amp; Hang Exercise</td>
<td>Q &amp; A</td>
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<tr>
<td>T-10/05</td>
<td>Presentation Day: Picturization Project</td>
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<td>Project #4 Materials Due for Group 1</td>
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<tr>
<td>Th-10/07</td>
<td>Presentation Day: Picturization Project</td>
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<td>Project #4 Materials Due for Group 2</td>
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<tr>
<td>T-10/12</td>
<td>Lighting Fundamentals Review</td>
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<tr>
<td>Th-10/14</td>
<td>LIGHTING EXAM</td>
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# THEA 3305
## Lighting and Sound Principles
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<tbody>
<tr>
<td>T-10/19</td>
<td>What is Sound Design? Who is on Team Sound?</td>
<td>Ch. 26 (pgs. 579-584)</td>
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<tr>
<td>Th-10/21</td>
<td>Sound Technology: Qualities and Properties of Sound</td>
<td>Ch. 26 (pgs. 563-579)</td>
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### Week 10

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<tbody>
<tr>
<td>T-10/26</td>
<td>Sound Technology: Recording and Playback</td>
<td>Digital Interfaces</td>
<td>Ch. 27 (pgs. 585-590)</td>
<td>Assign Project #5</td>
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<tr>
<td>Th-10/28</td>
<td>Sound Technology: Inputs</td>
<td>Wireless and Wired Microphones</td>
<td>Instruments</td>
<td>Digital Devices</td>
<td>Balanced and Unbalanced Cables</td>
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### Week 11

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<td>T-11/02</td>
<td>Sound Technology: Inputs</td>
<td>Wireless and Wired Microphones</td>
<td>Instruments</td>
<td>Digital Devices</td>
<td>Balanced and Unbalanced Cables</td>
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<td>Th-11/04</td>
<td>Sound Technology: Outputs</td>
<td>Amplifiers</td>
<td>Speakers</td>
<td>Self Powered Speakers</td>
<td>EQ</td>
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<td>T-11/09</td>
<td>Sound Technology: Outputs</td>
<td>Amplifiers</td>
<td>Speakers</td>
<td>Self Powered Speakers</td>
<td>EQ</td>
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<td>Th-11/11</td>
<td>Sound Technology: Clear Com</td>
<td>Mixers</td>
<td>Ch. 27</td>
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### Week 13

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<tr>
<td>T-11/16</td>
<td>Sound Technology: Sound System Diagram</td>
<td>Sound System Set Up Explanation</td>
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<td>Assign Project #6</td>
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<td>Th-11/18</td>
<td>Hands On Sound Exercise</td>
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### Week 14

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<td>T-11/23</td>
<td>Event Audio, Video, Lighting - AS</td>
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<td>Sound Quiz</td>
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<td>Th-11/25</td>
<td>Thanksgiving - No Class</td>
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### Week 15

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<td>T-11/30</td>
<td>Lighting and Sound Wrap Up &amp; Review</td>
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<td>Extra Credit Due</td>
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<td>Th-12/02</td>
<td>EXAM</td>
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### Finals Week

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<tr>
<td>T-12/07</td>
<td>Project #6 to be submitted via Blackboard by 12:45pm.</td>
<td></td>
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<td>Project #6 Due</td>
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THEA 3305: Extra Credit Time Sheet (25 hrs Max)

Semester: Fall 2021
Name
(PRINT): 

Schedule: You have the option to complete 25 hours by the end of the semester.

Mon: ___________  Tues: ___________  Wed: ___________  Thur: ___________
Fri: ___________

<table>
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<tr>
<th>DATE</th>
<th>TIME IN</th>
<th>TIME OUT</th>
<th>TOTAL</th>
<th>Student Signature</th>
<th>Supervisor</th>
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