

THEATER TECHNOLOGY: Theater 274
T, Th 11:00-12:15
Dreiser Hall Design Lab 218, Spring 2023

Professor Michael Jackson
Office: New Theater, 237-3340
michael.jackson@indstate.edu
Office hours: M,W 10:00-10:50 or by appointment

Required texts:

[Introduction to Show Networking](#) by John Huntington

[Introduction to Show Control: Connecting Entertainment Control Systems for Live Shows](#)
by John Huntington

Recommended texts:

[QLab](#) 4 2nd Edition by Jeromy Hopgood

[The Automated Lighting Programmer's Handbook](#) 4th Edition by Brad Schiller

[Electricity for the Entertainment Electrician & Technician](#) 3rd Edition by Richard Cadena

[Real-Time Video Content for Virtual Production & Live Entertainment](#) by Laura Frank

Required materials:

- A USB flash-drive for storing and transferring digital files or access to a cloud storage service (like One-Drive or Dropbox) that will allow you to share large digital files
- A Laptop capable of running Vectorworks, details at the following link:
<https://www.vectorworks.net/sysreq>

Software to be utilized:

- Vectorworks Spotlight 2024
You must procure a free student copy of Vectorworks using this web link:
<http://student.myvectorworks.net>
- [ETC Eos/Nomad](#)
- [Lightwright](#)

Course objectives:

The goal of this course is to provide an in-depth exploration of the technical language, tools, techniques and procedures utilized by entertainment technicians and designers in contemporary production environments. This course introduces concepts through demonstration and practical application using software in a classroom setting. Through hands-on experience using industry standard design software this course will introduce the concepts of lighting technology, and screens/media production and show control. Additionally, students will be introduced to computer drafting using Vectorworks and Lighting paperwork using Lightwright.

Requirements:

In-Class Participation:

Theater is a collaborative art, and theater production requires active participation and interaction by every student during every class session and production environment activity. Your input, attention and contribution to the class is extremely important. Every class session is worth participation points and will be credited based on **attendance, contribution to the discussion/activity, preparedness and attitude towards the work and your fellow classmates.**

You will be required to complete the assigned readings as outlined below BEFORE the scheduled class period where the material will be covered. There may be pop quizzes over required readings.

Lighting Controls Unit, Augment3d/Magic Sheet Project

An important portion of this course will involve learning the ETC Eos lighting control software through practical in-class work. Working with your classmates, you will complete a lighting-cueing project. We will spend time in class making a 3D programming environment and your own Eos Magic Sheet for Dreiser Theater

Production Electrician Project

You will complete a paper-project to learn the tasks required of the Production Electrician.

Lighting Work Calls

In order to put lighting skills into practical application, you will be required to attend **ONE** of the lighting work calls for this semester: Friday February 16, Saturday February 17, Friday April 5, or Saturday April 6

QLab Project

You will use QLab to create a simple narrative audio/video show, more details to be provided

Drafting Unit:

Part of this course is an introduction to the language of technical drawing and computer drafting. You will need to download a free student copy of Vectorworks and install it on your laptop.

Show Control Project:

You will complete a practical project using skills acquired throughout the semester to solve a collaborative technical theater challenge. Further details will be provided in-class regarding this project.

Attendance:

In this course we will be covering a vast amount of information in a very short time. Your participation during class discussions, practical demonstrations and exercises will be vital. You should plan to attend every class.

Grading:

This course will be graded based on the following:

In-Class Participation/Attendance	150 pts.	Percentage Scale for grading:			
Lighting Work Call	50 pts.	A+	97	C+	77
Eos Project	50 pts.	A	93	C	73
Lighting Cueing Project	50 pts.	A-	90	C-	70
Production Electrician Project	100 pts.	B+	87	D+	67
QLab Project	100 pts.	B	83	D	63
Lightplot Drafting Project	100 pts.	B-	80	D-	60
Final Show Control Project	<u>200 pts.</u>				
Total: 800 points					

Academic Integrity:

The student handbook notes that academic dishonesty includes “plagiarism, cheating, submitting another person’s material as one’s own, or doing work for which another person will receive academic credit.” These activities will not be tolerated.

The academic conduct code may be found online: <http://www.indstate.edu/academicintegrity/>

Student Disclosures of Sexual Misconduct

Indiana State University fosters a campus free of sexual misconduct including sexual harassment, sexual violence, intimate partner violence, and stalking and/or any form of sex or gender discrimination. If you disclose a potential violation of the sexual misconduct policy I will need to notify the Title IX Coordinator. Students who have experienced sexual misconduct are encouraged to contact confidential resources listed below. To make a report to the Title IX Coordinator, visit the Equal Opportunity and Title IX website: <http://www.indstate.edu/equalopportunity-titleix/titleix>. For additional information about It’s On Blue go to www.indstate.edu/itsonblue.

Please bring this syllabus to each class and make note of changes as they are announced. Additional handouts and information will be provided as the semester progresses.

COURSE OUTLINE:

January

T-16	Introduction, discuss syllabus	Discuss Cueing Projects Assign: Training Videos on Canvas Reading <u>Automated Lighting</u> Intro., Chapters 1 & 2 (Canvas) Assign: Ion Cueing Project Visit: http://www.etcconnect.com/EosFamilyVideoSeries/
Th-18	Automated Lighting Introduction Programming Philosophies	Reading Due: <u>Automated Lighting</u> (Canvas) Meet in Dreiser Theater @ 11am
T-23	In-Class Cueing Time	Meet in Dreiser Theater @ 11am
Th-25	In-Class Cueing Time	Meet in Dreiser Theater @ 11am
T-30	In-Class Cueing Time	Meet in Dreiser Theater @ 11am

February

Th-1	Ion Cueing Project Presentations - 50 points	Class will meet in the 7th Street Theater
T-6	Show Control Introduction	Reading Due: <u>Show Control</u> Chapter 1
Th-8	Connecting Devices and Systems	Reading Due: <u>Show Control</u> Chapter 2
T-13	DMX-512, RDM, sACN	Reading Due: <u>Show Networks</u> (Canvas)
Th-15	Assign Production Electrician Project	Using Lightwright for your Production Electrician Project Reminder to procure your copy of Vectorworks

Lighting Works Calls for *Accomplice* — Meet in the 7th Street Theatre
Friday February 16 6pm-9pm and Saturday February 17 10am-4pm

T-20	The Vectorworks Drawing Environment	In-class Demonstration <u>Due: Vectorworks Installed on your computer!</u>
Th-22	Intro. to Lighting Drawings, Spotlight, Beam Draw & Lightwright	Assign: Lightplot Project
T-27	In-Class Work on Lightplot Project	Due: Production Electrician Project - 100 points
Th-29	Backstage Tour of <i>Accomplice</i> — Meet in the 7th Street Theatre	
March		
T-5	In-Class Work on Lightplot Project	
Th-7	Lightplot Feedback/Rubric	Due: Lightplot Project 100 points
T-12	NO CLASS SPRING BREAK	
Th-14	NO CLASS SPRING BREAK	
T-19	Augmet3d for Eos	Assign Magic Sheet/Augment3d project
Th-21	In-Class Work on Eos Project	
T-26	Introduction to QLab	Assign QLab Project
Th-28	In-Class Work on QLab Project	Due: Eos Project 50 points submit show file to Canvas
April		
T-2	In-Class Work on QLab Project	
Th-4	QLab Project Presentations	Due: QLab Project 100 points
Lighting Works Call for <i>Dance & Devised</i> — Meet in Dreiser Theatre Friday April 5 6pm-9pm; Saturday April 6 10am-4pm		
T-9	Intro to Show Networks	Reading Due: <u>Show Networking</u> Chapter 1
Th-11	Ethernet	Reading Due: <u>Show Networking</u> Chapter 2
T-16	Show-Control Design Process	Reading Due: <u>Show Control</u> Chapter 3
Th-18	QLab Show Control & Networking	Reading Due: <u>Qlab 4</u> Chapters 21-23 (Canvas)
T-23	Assign Final Project	Reading Due: <u>Show Control</u> Chapter 4
Th-25	In-Class Work on Final Show Control Project	
T-30	In-Class Work on Final Show Control Project	

May

Th-2 In-Class Work on Final Show Control Project

Th-9 **Final Exam Period 10:00am** **Final Show Control Project Presentations - 200 points**