



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE
BIG ORANGE. BIG IDEAS.

THEA 475 Projection and Media Design, Spring 2023

University of Tennessee, Knoxville

Meeting Time and Place: WAB D301, D305, M/W 12:40-2:40

Course Credit Hours: 3

Door code: *****

Zoom Link if needed: *****

Faculty Contact Information

Joe Payne

joepayne@utk.edu Email is preferred method of contact.

McClung Tower 101

Office *****

Cell *****

Please do not text or call in the evenings unless it is an emergency.

Be respectful of my time, and I will be respectful of yours.

Office Hours by appointment. I am absolutely more than happy to meet outside of class face-to-face, zoom, phone call, or email if contacted.

Department office phone: *****

Course Description/Information:

The study and exploration of the projection design process, and the creation and execution of digital media for theatrical projection and multimedia/performance integration.

Course Objectives:

Developing a basic understanding of digital media integration with live performance, including process, paperwork, content, and execution. This course will include advanced application of theatrical projection design practice, principals, and technology.

Student Learning Outcomes:

By the end of this course, the successful student will have:

- an understanding of the projection design process for theatre, and the art of projection design.
- a practical understanding of tools and technology of mounting a design.
- a practical understanding of media creation and manipulation.

Learning Environment:

Classes will be composed of lectures, software demonstrations, studio/lab projects, and in-class evaluation/presentation/conversations of said studio projects. Critical analysis and evaluation of students own and others work is fundamental for success in this class. Students should be able to articulate their own thinking using appropriate language, through discussion and evaluation, demonstrating a broader understanding of their own creativity and receptivity to the topic.

Mondays will generally be project due day, presentation day, and introduction to new software or skill. Wednesday will generally be work and exploration of a skill or software/hardware under instructor supervision. Projects are due at the beginning of class on the dates indicated on the class schedule or as announced in class. We will view/listen to the material in class on the due date as part of every student's presentation.

Respect for Diversity:

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Bias and Sexual Harassment Reporting Resources

<https://theatre.utk.edu/bias-sexual-harassment-reporting-resources/>

How to Be Successful in This Course:

Don't wait until the last minute. Take the time to create content that is of appropriate caliber work. Keep an open mind. Actively participate. Ask questions – Ask for help

Students MUST TAKE NOTES and ask questions. Students are responsible for retaining information that was given in class. Even though there are no test in this course, all projects build on information given in class. Success on the projects requires understanding of demonstrations and information from lectures.

Course Communications:

One important key to success is good communication. If you are going to miss class or even if you think you are going to be late PLEASE email me and let me know before class. This class may also have you thinking in a different way than you are used to. If during the week, you have ANY questions about the class, do not hesitate to email me and ask about it. Really, contact me. I like it. I am here to teach you and you are here to learn. Let's both make the most of this opportunity!

Texts: (Recommended)

[Media Design and Technology for Live Entertainment](#), by Davin Gaddy

[Digital Media, Projection Design and Technology for Theatre](#), by Alex Oliszewski and Daniel Fine

Course Resources:

- The only content on the Canvas site will be the syllabus
- [Class content will be shared via google drive](#)
- [Theatre Sound Effects Library](#)

- Required: Flash Drive or personal cloud drive for media
- This class uses the Media Lab. You must schedule time and follow the posted rules. Schedule time here: <http://www.theatre.utk.edu/medialab>
- The Department owns equipment that can be check-out. Directions to follow.
- Software that we will be exploring. Will be supplied in Media Lab and Computer Lab:
 - Playback: Qlab - <https://qlab.app/> (rent for \$4/day). Mac OS.
 - Playback: Isdaora <https://troikatronix.com/> (rent for \$10/week), Mac/Win
 - Playback: Touchdesigner <https://derivative.ca/> (basic free, \$300) edu. Mac/Win
 - Playback: Watchout <https://www.dataton.com/products/watchout> (\$2-4,000) Win
 - Creation/Editing software: Adobe Suite – Photoshop, Premiere, After Effects
 - Creation/playback: Tagtools: <https://apps.apple.com/us/app/tagtool/id1129269238> IOS.
 - Creation: Procreate <https://apps.apple.com/us/app/procreate/id425073498> IOS

Course Requirements, Assessments, and Evaluations:

All assignments will be handed in electronically. I DO NOT want any physical paper. All projects must be uploaded to google drive in the appropriate folder with **project title and Name of Student in the File Name.**

Grading will be based on being turned in on time, effort, amount complete, quality of finished product, quality of thought gone into the project, and participation in the class discussions and presentations.

Incomplete projects, and/or late projects will get a C maximum.
A complete project, turned in on time will get a B.
Exceptional work (i.e. creative, thoughtful, detailed) will get an A.

Participation is required at all project presentations. If you miss someone else's project presentation, you will be graded as though your own project was late.

Extra credit/replacement project: 10-page paper, subject assigned by instructor. Worth 10% of final grade.

Project #1 Research/discussion terms: 10% of final grade (10 points of 100)

Image and Video exercises: 10%

Mapping and playback exercises: 10%

Project #2 Unified imagery on non-traditional surfaces: 20%

Project #3 Interactive design: 25%

Project #4 Final project – Projection design: 25%

Attendance Policy:

- Attendance is mandatory. You have 1 free absence. After that, each **unexcused** absence will count as 3% off of your final grade (3 absences equal a full letter grade).
- Please talk to me if there are extenuating circumstances.
- In the time of Covid, I understand if you miss class due to illness, but you will need to talk to me about the absence.
- Excessive or repetitive tardiness will be dealt with by locking the student out of the classroom and will be treated as absences.

Additional Course Requirements, and Evaluation for Graduate Students:

In addition to the course requirements (projects, exercises, and participation), all graduate students taking this course must complete the following:

- Research project will include presentation and lecture of specific researched material.
- Exercises require unified product of quality beyond in-class study to be completed and submitted.
- Written documentation for projects will include developed artistic concept statement and research.
- Projects will be graded based on an expectation that concept, artistry, and execution are significantly higher quality than that of undergrad projects.

Projects/Assignments:

Project #1 Glossary, Research/discussion terms: 10%

In your own words, thoroughly define and UNDERSTAND the following as it relates to digital media, video and computers. Feel free to add images:

Video/image Aspect Ratio. Include standards.

Video/image Resolution and pixel dimensions. Include standards for screen content.

HDMI, VGA, DVI, Mini DisplayPort, SDI, Composite, Component. Include connection standards.

Video file formats – most popular, Compressed vs. Uncompressed. Codec vs. Container.

Frame Rate, Interlacing vs. Progressive. Include standards

LCD projectors vs. DLP projectors. Include biggest differences.

Keystone vs. Corner Pin.

Lumens. Include general standards for room size and brightness.

Lens Throw Ratio. Why is this so important – which two distances/measurements does it tell us

Graduate Students: complete glossary for above items. Also create a 10-minute presentation on a projection artist or technology of your choice.

In-class exercises: 20%, Image and Video, Mapping ad Mapping

There will be a series of software demonstrations. At the end of each demonstration there will be time to experiment with the software and create/modify content based on instructions given while in the software. Product from those days will be handed in as credit for participation in the exercises. If you miss these days, and wish to get credit, it will be your responsibility to generate content that explores the same topic. Late grade reductions apply. In-class exercises will consist of image creation/manipulation, video creation/manipulation, projection mapping/masking, and playback. Software included: Adobe Photoshop, Premiere, After Effects, Qlab, Isadora, Watchout, TouchDesigner.

Project #2 Unified Imagery on Non-Traditional Surfaces: 20%

Using a minimum of 5 unified **original or modified** images and/or video, create a montage projected on non-traditional surfaces. Pay particular attention to transitions and projection mapping. Should be approximately 1.5 minutes to 3 minutes in length.

- A sound component is required, which can be music, effects, voice, live, or recorded.
- Class discussion, response, and feedback will take place during/after the presentation and participation is required.
- A one-page reflection paper is due one class period after project presentation, and should include artistic statement, process, research, defense of your ideas, things learned, etc.

Project #3 Interactive Design: 25%

Create and present a projection sequence that has live performer or audience interaction. This can be **real-time interaction or perceived interaction**. Should be approximately 3 minutes in length. The performer/participant can be a member of the class but does not need to be.

- A sound component is required, which can be music, effects, voice, live, or recorded.
- Playback must include content that is cued (triggered) based on performer or audience action (entire sequence cannot run on its own from start to finish – unless the content is self-reactive to an outside source).
- Equipment plot with accurate throws for your performance space and projection surface of your choosing is also required.
- Class discussion, response, and feedback will take place during/after the presentation and participation is required.
- A one-page reflection paper is due one class period after project presentation, and should include artistic statement, process, research, defense of your ideas, things learned, etc.

Project #4 Final Design Project – Text Based Project: 25% of final grade

Design a sequence from a script (text) of your choice (you cannot be the author). Literal presentation of a scene is acceptable but discouraged. The script can be used as a jumping off point for something deeper. Project must be presented in software as though you were in production. Performers are not required, but possible.

- A sound component is required, which can be music, effects, voice, live, or recorded.
- Equipment plot with accurate throws for your performance space and projection surface of your choosing is also required.
- Class discussion, response, and feedback will take place during/after the presentation and participation is required.
- A one-page reflection paper is due one class period after project presentation, and should include artistic statement, process, research, defense of your ideas, things learned, etc.

Topics for lectures:

History and Industry Standards – Examples. Design process – paperwork and such
Sound and lighting integration. Live video – Analog and Digital Capture Switching and scan converters.
Media Creation – software, media types. Resolutions
Images: Photoshop and media types and resolution
Video: After Effects, Premiere,
File types, resolution, FPS,
Content procurement and file conversion.
Execution – technology – software, hardware.
Playback – Qlab, Watchout, Isadora, TouchDesigner,
Still images - Moving images – Video – Kerning – Mapping - Live video
Projectors – Lumens, throw ratios, lenses, dowsing
Media servers Moving projectors LED and other formats
Projection – Front, Rear Other surfaces TVs Multi-Screen – dividing, mapping, edge blending.

Schedule. Tentative Outline of Semester:

M	W	Material
1/23		What is Projection design? Examples. Syllabus. Assign Project 1 (Glossary)
	1/25	Lecture.
1/30		Assign Project 2 (non-traditional surfaces) - examples.
	2/1	Playback Qlab
2/6		Photoshop
	2/8	Project 1 due. Glossary – Presentation of Research
1/13		Mapping - Masking, exercise 1
	2/15	Mapping - Masking, exercise 2
2/20		Premiere
	2/22	After Effects
2/27		work on project 2 – review of Qlab
	3/1	SETC – work on project 2
3/6		Project 2 due. Unified Imagery on Non-Traditional Surface.
	3/8	Project 2 second presentation day
3/13		Spring Break
	3/15	Spring Break
3/20		Isadora Assign Project 3 (Interactivity)
	3/22	Isadora/TouchDesigner
3/27		proposals due on Project 3 and begin work.
	3/29	Systems and paperwork - Vectorworks
4/3		Work on projects
	4/5	Work on projects
4/10		finalize/tech rough draft project 3
	4/12	finalize/tech rough draft project 3
4/17		Project 3 due. Interactive Design
	4/19	Project 3 second presentation day
4/24		Assign project 4 (Text Based Design) Watchout
	4/26	Hair – see CBT setup and design
5/1		work on projects
	5/3	rough drafts.
5/8		rough drafts.

FINAL PRESENTATION – Project 4 due. Text Based Design.

Monday, May 15, 1:00-3:15pm

Wednesday, May 17, 3:30-6:00pm

The instructor reserves the right to revise, alter or amend this syllabus as necessary. Students will be notified in writing/email of any such changes.

University Policies:

The honor statement is included on the Campus Syllabus available on the Provost and TLI websites, and the online UT catalog. These elements are also included below.

Academic Integrity:

“An essential feature of the University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.”

University Civility Statement:

Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other’s well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus: <http://civility.utk.edu/>.

Disability Services:

“Any student who feels s/he may need an accommodation based on the impact of a disability should contact Student Disability Services in Dunford Hall, at 865-974-6087, or by video relay at, 865-622-6566, to coordinate reasonable academic accommodations. <http://sds.utk.edu>

Accessibility Policy and Training:

– <http://accessibility.utk.edu>

Wellness:

The Student Counseling Center is the university’s primary facility for personal counseling, psychotherapy, and psychological outreach and consultation services. **The Center for Health Education and Wellness** manages *974-HELP*, the distressed student protocol, case management, the *Sexual Assault Response Team*, and the *Threat Assessment Task Force*. -- <http://counselingcenter.utk.edu/> and <http://wellness.utk.edu/>

Your Role in Improving Teaching and Learning Through Course Assessment:

At UT, it is our collective responsibility to improve the state of teaching and learning. During the semester, you may be requested to assess aspects of this course either during class or at the completion of the class. You are encouraged to respond to these various forms of assessment as a means of continuing to improve the quality of the UT learning experience.

Key Campus Resources for Students:

- [Center for Career Development](#) (Career counseling and resources; HIRE-A-VOL job search system)
- [Course Catalogs](#) (Listing of academic programs, courses, and policies)
- [Hilltopics](#) (Campus and academic policies, procedures and standards of conduct)
- [OIT HelpDesk](#) (865) 974-9900
- [Schedule of Classes/Timetable](#)
- [Student Health Center](#) (visit the site for a list of services)
- [Student Success Center](#) (Academic support resources)
- [Undergraduate Academic Advising](#) (Advising resources, course requirements, and major guides)
- [University Libraries](#) (Access to library resources, databases, course reserves, and services)

Emergency Alert System:

The University of Tennessee is committed to providing a safe environment to learn and work. When you are alerted to an emergency, please take appropriate action. Learn more about what to do in an emergency and sign up for [UT Alerts](#). Check the emergency posters near exits and elevators for building specific information. In the event of an emergency, the course schedule and assignments may be subject to change. If changes to graded activities are required, reasonable adjustments will be made, and you will be responsible for meeting revised deadlines. <http://safety.utk.edu/>