

Spring2019

**AET 316: Foundations of New Performance Technologies** – Unique # 20600

Tuesday/ Thursday 12:30Pm – 2:00Pm PAC 3.204

Instructor: Matthew R. Smith

Office Hours: by appointment

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## **COURSE DESCRIPTION:**

This course is a lecture / lab course designed to introduce students to the basic concepts, methods, and systems utilized in the field of Live Entertainment. The primary focus is to explore core technologies and illuminate how each area of work within Projection, Lighting and interactivity relates and is connected to others. Through a mixture of lectures and lab classes the students will be introduced to the tools and techniques prevalent in four specific applications of Live Entertainment: projection, conventional & intelligent lighting, 3-D previsualization, and interactive & generative imagery. Topics include the historical landmarks of interactive performance, projection system design, media servers, common signal and data formats, imagery creation for live performance, and current trends in live event technology. Student activities include: programming lights, controlling media servers, and designing an interactive projection system.

## **LEARNING OUTCOMES:**

By the end of the semester, students should be able to:

- apply principles and elements of design;
- create and implement original design ideas;
- effectively troubleshoot an interactive system;
- critically examine projection techniques

## **COURSE MATERIALS:**

- 8GB maximum USB drive
- Pencil
- 1 – notebook (small or medium in size, easily accessible for notetaking and may be used during quizzes)

## **COURSE REQUIREMENTS:**

- Quizzes (10%): A total of 5 quizzes will be administered throughout the semester.
- Project 1 (20%): QLab – performance
- Project 2 (15%): LightConverse – lighting previsualization
- Project 3 (20%): Hog 4 – performance
- Project 4 (15%): disguise – projection previsualization
- Project 5 (20%): disguise – 3D mapping performance

**If you submit your assignment late it will not be reviewed in class.**

All work is due as specified in the assignment listed in canvas. Work not completed prior to the canvas deadline will be considered late.

Any work turned in late, regardless of the excuse, will result in a grade reduction of one full letter for each calendar date it is late (an A would become a B and so on).

In summary:

**Every assignment has a due date and time.**

**I do accept work after the due date, however, assignments automatically lose one full letter grade for every calendar date submitted late and they will not be reviewed in class.**

Any work turned in more than 4 calendar days late will receive an automatic F. If you are having difficulty completing your work on time, please speak to me privately prior to the deadline, so we may discuss a possible arrangement.

**All assignments will be graded within 7 days of submission date.**

**Grading Scheme**

**A-** Represents **outstanding** participation in all course activities. All assigned work must be completed on time and with a very high quality of demonstrated skill and technique. There is an evidence of significant development across all dimensions of learning. The result at this level demonstrates activity that goes *significantly* beyond the required course work in one or more areas.

**B-** Represents **excellent** participation in all course activities; all assigned work must be completed on time with consistently high quality in course work. There is an evidence of marked development across all dimensions of learning.

**C-** Represents **good** participation in all course activities; all assigned work completed, with generally good quality in course work. There is evidence of some development across all dimensions of learning.

**D-** Represents **uneven** participation in all course activities; some gaps in assigned work completed, with inconsistent quality in course work. The evidence of development across all dimensions of learning is unclear.

**F-** Represents **minimal** participation in all course activities; serious gaps in assigned work completed, or very low quality in course work. Development evidence is not available.

Please Note: If you are concerned about your grade – check in with us regularly so that we can determine where you're at, and what might need to be done to correct any problems. Do not wait until the end of the semester!

**ATTENDANCE:**

ATTENDANCE IS MANDATORY - Being a professional requires a habit of discipline and rigor. Professionals in the arts achieve at the highest level when they work with determination and dedication to detail. Your attention to attendance and lecture information gathering is an important element of establishing professional standards and practices. The course lectures and discussions will involve a significant amount of information that will not be available in any other form (textbook, handouts); therefore, regular attendance is necessary for successful completion of the class. If you need to miss class for legitimate reasons it is your responsibility to contact me directly with this information. Sending a message by way of another student of an impending absence does not constitute a legitimate notification.

For each unexcused absence after your first three, **your final grade will be lowered by one letter grade**. Seven unexcused absences constitute an automatic F in the class.

Please be on time for class. If you are more than 5 minutes late for class you will be counted as tardy. Every two instances you are tardy will be counted as one time absent.

**Privacy**

What we say about each other's work during this class should remain constructive and in the classroom. It **will not** be published in a blog or on any other personal website, tweeted, or posted on social networks. Please respect each other's work.

**Resources**

PLAI Lab Hours:

Monday – Friday: 5:00pm – 10:00pm

Saturday: 8:00am – 12:00pm

WIN 1.138 Hours:

See building hours

reference online:

[www.figure53.com](http://www.figure53.com)

[www.highend.com](http://www.highend.com)

[www.disguise.one](http://www.disguise.one)

[UTIM Wiki](#)

**CLASS CALENDAR**

Instructor reserves the right to adjust the calendar to fit the needs of the class.

**Week 1:**

**Tuesday: January 22<sup>nd</sup>**

- Introduction
- Syllabus overview
- Tour of PLAI Lab

**Week 1:**

**Thursday: January 24<sup>th</sup>**

- QLab introduction
- Sample projects shown (Francisco)

**Week 2:****Tuesday: January 29<sup>th</sup>**

-Projection Equipment in detail (projectors, signal distribution)

**Week 2:****Thursday: January 31<sup>st</sup>**

-Projection Equipment in detail (projection surfaces, mounting &amp; rigging hardware)

**Week 3:****Tuesday: February 5<sup>th</sup>**

-QLab overview (interface, audition window, screens vs surfaces, mapping)

**Week 3:****Thursday: February 7<sup>th</sup>**

-QLab continued (cue lists, auto-continue &amp; auto-follow, effects, fades, audio)

**Week 4:****Tuesday: February 12<sup>th</sup>**

- Projection Design overview (role of designer, engineer, operator)
- Samples of projection designs shown (Matt)
- Projection Engineering overview (projection plot, section, system diagram & equipment list)
- Samples shown (Matt)
- Discussion: how to choose playback system
- QLab continued (sample work from Matt)
- QLab Q&A (specific ideas or challenges)

**Week 4:****Thursday: February 14<sup>th</sup>**

-QLab Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

**Week 5:****Tuesday: February 19<sup>th</sup>**

- Lighting Design overview (role of designer, electrician, programmer)
- LightConverse overview (interface, editor, visualizer, 3D model library)

**Week 5:****Thursday: February 21<sup>st</sup>**

- LightConverse continued (adding fixtures & props)
- LightConverse continued (object textures, custom object scaling)

**Week 6:****Tuesday: February 26<sup>th</sup>**

- \*DUE – Project 1\* - in-class presentations
- Matt Smith out of town, Francisco will record presentations

**Week 6:****Thursday: February 28<sup>th</sup>**

- Project 1 - in-class presentations continued
- Matt Smith out of town, Francisco will record presentations

**Week 7:****Tuesday: March 5<sup>th</sup>**

- Hog 4 PC overview (console layout, windows, fixture library)

**Week 7:****Thursday: March 7<sup>th</sup>**

-Hog 4 PC continued (patching, user numbers, programmer, LightConverse connectivity)

**Week 8:****Tuesday: March 12<sup>th</sup>**

-LightConverse Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

**Week 8:****Thursday: March 14<sup>th</sup>**

-\*DUE – Project 2\* - online submission

**Week 9:****Tuesday: March 19<sup>th</sup>**

-SPRING BREAK

**Week 9:****Thursday: March 21<sup>st</sup>**

-SPRING BREAK

**Week 10:****Tuesday: March 26<sup>th</sup>**

-Hog 4 programming tips &amp; tricks

-Hog 4 Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

-in-class work day

**Week 10:****Thursday: March 28<sup>th</sup>**

-Hog 4 programming tips &amp; tricks

-Hog 4 Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

-in-class work day

**Week 11:****Tuesday: April 2<sup>nd</sup>**

-\*DUE – Project 3\* - in-class presentations

**Week 11:****Thursday: April 4<sup>th</sup>**

-Project 3 - in-class presentations continued

- disguise overview (interface, timeline, menus, scenes)

**Week 12:****Tuesday: April 9<sup>th</sup>**

-disguise continued (props, screens, projectors, cues, play variations)

**Week 12:****Thursday: April 11<sup>th</sup>**

-disguise continued (projector calibration, UV maps, schematic vs lux)

**Week 13:****Tuesday: April 16<sup>th</sup>**

-disguise projector calibration workshop

-disguise Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

**Week 13:****Thursday: April 18<sup>th</sup>**

-disguise projector calibration workshop

-disguise Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

**Week 14:****Tuesday: April 23<sup>rd</sup>**

-\*DUE – Project 4\* - online submission

-disguise Q&amp;A (1 on 1 with Matt or Francisco on a per project basis)

-in-class work day

**Week 14:****Thursday: April 25<sup>th</sup>**

-\*DUE – Project 5\* - in-class presentations

**Week 15:****Tuesday: April 30<sup>th</sup>**

-Project 5 - in-class presentations continued

-LAST CLASS DAY

**POLICIES OF THIS COURSE AND THE UNIVERSITY OF TEXAS*****Religious Holy Days***

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.

***Q Drop Policy***

If you want to drop a class after the 12th class day, you'll need to execute a Q drop before the Q-drop deadline, which typically occurs near the middle of the semester. Under Texas law, you are only allowed six Q drops while you are in college at any public Texas institution. For more information, see: <http://www.utexas.edu/ugs/csacc/academic/adddrop/qdrop>

***Student Accommodations***

Students with a documented disability may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259 (voice) or 1-866-329-3986 (video phone). <http://ddce.utexas.edu/disability/about/>

- Please request a meeting as soon as possible to discuss any accommodations
- Please notify me as soon as possible if the material being presented in class is not accessible
- Please notify me if any of the physical space is difficult for you

***Academic Integrity***

Each student in the course is expected to abide by the University of Texas Honor Code:

**“As a student of The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity.”**

This means that work you produce on assignments, tests and exams is all your own work, unless it is assigned as group work. I will make it clear for each test, exam or assignment whether collaboration is encouraged or not.

Always cite your sources. If you use words or ideas that are not your own (or that you have used in previous class), you must make that clear otherwise you will be guilty of plagiarism and subject to academic disciplinary action, including failure of the course.

You are responsible for understanding UT's Academic Honesty Policy which can be found at the following web address: [http://deanofstudents.utexas.edu/sjs/acint\\_student.php](http://deanofstudents.utexas.edu/sjs/acint_student.php)

**University Resources for Students**

The university has numerous resources for students to provide assistance and support for your learning, use these to help you succeed in your classes.

***The Sanger Learning Center***

Did you know that more than one-third of UT undergraduate students use the Sanger Learning Center each year to improve their academic performance? All students are welcome to take advantage of Sanger Center's classes and workshops, private learning specialist appointments, peer academic coaching, and tutoring for more than 70 courses in 15 different subject areas. For more information, please visit <http://www.utexas.edu/ugs/slc> or call 512-471-3614 (JES A332).

***The University Writing Center***

The University Writing Center offers free, individualized, expert help with writing for any UT student, by appointment or on a drop-in basis. Consultants help students develop strategies to improve their writing. The assistance we provide is intended to foster students' resourcefulness and self-reliance. <http://uwc.utexas.edu/>

***Counseling and Mental Health Center***

The Counseling and Mental Health Center (CMHC) provides counseling, psychiatric, consultation, and prevention services that facilitate students' academic and life goals and enhance their personal growth and well-being. <http://cmhc.utexas.edu/>

***Student Emergency Services***

<http://deanofstudents.utexas.edu/emergency/>

***ITS***

Need help with technology? <http://www.utexas.edu/its/>

***Libraries***

Need help searching for information? <http://www.lib.utexas.edu/>

***Canvas***

Canvas help is available 24/7 at <https://utexas.instructure.com/courses/633028/pages/student-tutorials>

**Important Safety Information**

***BCAL***

If you have concerns about the safety or behavior of fellow students, TAs or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn't feel right – it probably isn't. Trust your instincts and share your concerns.

***Evacuation Information***

The following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when an alarm or alert is activated. Alarm activation or announcement requires exiting and assembling outside, unless told otherwise by an official representative.

- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.

Link to information regarding emergency evacuation routes and emergency procedures can be found at: [www.utexas.edu/emergency](http://www.utexas.edu/emergency)