

## THTR 163

### Introduction to Sound Design and Technology

Spring 2019

**Course Information**

Course Number: THTR 16300

Spring 2019

Class Location: Pao Studio (B185E) &  
Music Computer Lab (B189)

Class Time: Tuesdays 3:30 pm – 5:20 pm

**Instructor's Contact Information**

Jeff Sherwood (he/him/his)

Office: Pao 2155

Office Phone: 765-496-3081

Email: jeffsherwood@purdue.edu

Office Hours: By appointment.

**To reserve time in the Recording Studio, follow the instructions on Blackboard.**

**Course Description:** Introduction to theatre sound design and technology for general theatre students. Involvement in Department of Theatre production program.

**Learning Outcomes:** After completing this course, each student will have:

- Developed the necessary elements for a sound design
- Hooked up and operated a small sound system
- Located resources within the sound area for Purdue Theatre
- Participated as an efficient member of a sound crew
- Analyzed the sound design of a theatrical performance

**Course Requirements:** Each student in this course is required to:

- Attend and participate during each class period.
- Complete 4 quizzes and 5 exercises.
- Complete the Unit Exam.
- Complete two sound design analysis papers.
- Complete a final project.

**Required Materials:**

- 16GB (or larger) flash drive or portable hard drive
- Vectorworks 2018 – free download at <https://student.myvectorworks.net/>

	DATE	CLASS TOPIC	QUIZ / EXERCISE
1	Jan 8	Introduction to course & BB/ Setting up User Accounts/ Sound fundamentals / Exercise 0 Assign: Survey	
2	15	Unit 1: Microphones / Working with the script / Exercise 1 Assign: Spotted Script	<b>Exercise 0 Due:</b> Get to Know You Survey & 60 Second Story
3	22	Unit 1: Mixing Consoles: Inputs (Channel Strip, Mic/Line Level, Insert function)	<b>Pick Groups</b> <b>Exercise 1 Due:</b> Spotted Script
4	29	Unit 2: Loudspeakers and Amplifiers (Passive/Active, Dispersion, Ohm's Law, Sensitivity, Wattage for SPL)	<b>Unit 1 Quiz – Fundamentals,</b> <b>Microphones and Mixer Inputs</b> <b>Story Selection Due</b>
5	Feb 5	Unit 2: Mixing Consoles: Routing and Outputs / Exercise 3 Assign: Cue Sheet	<b>Concept Statement</b> <b>Presentations</b> <b>Exercise 2 Due:</b> Spotted Script for Final Project

**Subject to Change**

6	12	Unit 3: System Design and Signal Flow / Hansen Theatre Tour / Exercise 4 Assign: Rough Sound	<b>Unit 2 Quiz</b> – Loudspeakers, Amplifiers, and Mixer Outputs <b>Exercise 3 Due:</b> Cue Sheet
7	19	Unit 3: Vectorworks Block Diagram / Basic sound system setup demonstration Assign: System Block Diagram	<b>Exercise 4 Due:</b> Rough Sound
8	26	Unit 3: Loudspeakers and Amplifiers (Cont.) / Discussion of Sound Design Analysis	<b>Analysis Paper 1 Due</b> <b>Prelim System Block Diagram Due</b>
9	Mar 5	Review Project Progress and Issues/Review System Block Diagram Assign: QLab 4.4 Manual Reading	<b>Unit 1,2,3 Exam</b> – System Design and Signal Flow & Sound System Hookup (Practical)
–	12	<b>Spring Break, No Class</b>	
10	19	Unit 4: QLab v4.4 Programming	<b>Revised System Block Diagram Due</b>
11	26	Unit 5: Mallett Theatre Tour / Sound System Calibration / Calibrate Mallett Rep System	<b>Unit 4 Quiz</b> – QLab Basics
12	Apr 2	Sound System Setup and Calibration	<b>Unit 5 Quiz</b> – System Setup and Calibration (Practical)
13	9	Final Project Rehearsal Mass Group #1 (QLab, Script and Cue Sheet)	<b>Exercise 5–</b> QLab Demonstration
14	16	Final Project Rehearsal Mass Group #2 (QLab, Script and Cue Sheet) Assign: Critique Reading	<b>Exercise 5–</b> QLab Demonstration
15	23	Final Project Rehearsal Mass Group #3 (QLab, Script and Cue Sheet)	<b>Exercise 5–</b> QLab Demonstration <b>Analysis Paper 2 &amp; Critique Reading Due</b>
16	Finals Week	Final Project Presentations	<b>Final Project</b> – Completed Files
		<b><u>CLASSES END</u></b>	

### **GRADED ELEMENTS**

**Quizzes:** Throughout the semester, four quizzes will be given at the beginning of the class period and will generally cover topics from the previous units. Quizzes can **ONLY** be taken during the designated class time – there is no opportunity to make up a missed quiz. The lowest quiz score will be dropped, so only three of the four quiz scores will apply toward your final grade.

**Unit Exam:** There will be one exam given covering multiple unit topics.

**Subject to Change**

**Exercises:** There are five exercises designed to give opportunities to practice techniques learned in this course. Some of these will be electronic files that should be uploaded to Blackboard to the instructor on the due date, and some will be in-class demonstrations or presentations. For the demonstration exercises, you will be given a copy of the exercise at least one week in advance so you will know what to expect.

**System Block Diagram:** You will need to draft a system block diagram for the small sound system which you will hook up for the Unit 5 Quiz. This will need to be completed using Vectorworks 2018 software, and both the Vectorworks file and published PDF will need to be uploaded to Blackboard.

**Sound Design Analysis Paper:** Students are required to attend the two Purdue Theatre Main Stage productions and submit a two-page, 400-500 word typed analysis of the sound design for the production. Paper should be typed in Times New Roman 12-point font, double spaced, with 1" margins, and following proper MLA style formatting. Other formats or fonts will result in points lost on grading of paper. The paper should include a general response to the show: the piece as it is written, the acting, the direction, and the other design elements. It should also include an analysis of the sound design in greater depth: what were the big choices the designer and director made together, what was the style of the design (both content and system design), the role of sound in the show, and how did it incorporate with the other elements of the show. Refer to things in detail – specific cues and technical choices should be addressed. See the class schedule for due dates.

Visit the callboard for production dates: <https://cla.purdue.edu/sub/theatreweb/index.html>

Visit the ticket page for how to get a student ticket:

<https://cla.purdue.edu/theatre/Tickets/index.html>

- **Analysis Paper 1:** *The Two Gentlemen of Verona*
- **Analysis Paper 2:** *She Kills Monsters*

**Attendance and Participation:** Attendance will be taken at the beginning of each class. Because there is no textbook, in class discussions and demonstrations are the core learning components of the course. Therefore, regular attendance is the key to success in this class. As you can notice, your Blackboard shows 10 points at beginning of the semester. Every time you miss a class the instructor will take away 1 point from your current Attendance grade. If you have four points taken away, you automatically fail the class. Since the class only meets one day a week, it is vital that you attend. If you know you will be missing class, please let me know in advance.

**The Fairytale Project:** The final project for this class is a small sound design for a fairytale. This is a "work-in-progress" project throughout the semester. You will collaborate with a classmate in order to create this design. **It is your responsibility to choose a short story** and bring the script to class (i.e., the tortoise and the hare). Once you have approval from your instructor about your story, both team members should agree about every single aural aspect of the design, including all technical and aesthetic concerns. This small sound design will be "performed" to the class during the final class period, where one member will serve as "talent" and the other as the sound board operator. The project will also include setting up a small reinforcement system with microphone(s) for the "talent." The presentation will take place in the studio recording room. The time limit is 5 minutes long. Keep in mind that both members must be ready to switch roles at any point of the design process, in case a group member is not able to perform their assigned role.

The objective of this project is to show to the class how your sound design can support the story telling for the piece you selected. To succeed in this project, rehearsals are mandatory and for that purpose, each team must book time in the recording studio with the TA in charge. Be sure to specify your technical needs (example: microphones, speakers, cables, mixer, audio interface, playback computer). Recording studio reservation procedure is posted on Blackboard.

Prior to the week of the presentation, these documents are required for final revision:

- **Spotted Script & Conceptual Statement** (from Exercise 2) – an electronic script prepared according to in class instructions. The Conceptual Statement is an electronic document explaining how the sound design (music scores, sound effects, recordings, technology and others) integrates to the storytelling.
- **Cue List** (from Exercise 3) – an electronic cue list prepared according to in class instructions.
- **Rough Sound Folder** (from Exercise 4) – an organized folder that contains all your models and music/sound effect cues.
- **QLab Workspace** (from Exercise 5) – a QLab workspace that contains all sound cues. These can be audio, fade, pause, stop cues, etc.

**Grading:** Your grade is based on the quiz scores, exam score, exercise scores, analysis papers, class participation, and the final project. The breakdown for each component is as follows:

<b>Quizzes</b> (Four 5 point quizzes/Lowest quiz dropped)	15 points
<b>Unit Exam</b>	10 points
<b>System Block Diagram</b>	5 points
<b>Exercises</b> (Five at 6 points each)	30 points
<b>Sound Design Analysis Papers</b> (Two at 5 points each)	10 points
<b>Attendance and Participation</b>	10 points
<b>Final Project</b>	20 points

<b>TOTAL POINTS POSSIBLE</b>	100 points
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<b>A+</b>	97-100 points
<b>A</b>	94 points
<b>A-</b>	90 points
<b>B+</b>	87 points
<b>B</b>	84 points
<b>B-</b>	80 points
<b>C+</b>	77 points
<b>C</b>	74 points
<b>C-</b>	70 points
<b>D+</b>	67 points
<b>D</b>	64 points
<b>D-</b>	60 points
<b>F</b>	less than 60 points

**Late Work Policy:** No late work will be accepted in this class except in extraordinary (documented) circumstances. Please make an appointment to see me as problems arise, not after they have gotten out of hand.

#### \*\*\*\*EXTRA CREDIT OPPORTUNITIES\*\*\*\*

##### Extra Credit

The path to becoming a great designer involves learning how to communicate with your crew and knowing the process of installing sound systems. We highly encourage you to come out and help us with sound load-in for the Purdue Theatre productions. This is a great chance for you to get an inside look on this aspect of sound design, prepare to join a crew on a Purdue show, and meet other sound designers. Since this will deepen your understanding of the topics we discuss in class, you will receive extra credit. Five points will be added to your final grade for each load-in that you attend. Please let me know via email two days prior to the load-in date if you are planning to come by, so we know to expect you.

**Subject to Change**

Unsatisfactory performance or tardiness during a load-in/out may cause you to not get the 5 points based on your supervising production sound engineer's feedback.

Here are the dates:

- Sat, Jan 26, 1p-10p, Sound Load-In for *The Two Gentlemen of Verona* in the Hansen Theatre
- Sun, Mar 24, 1p-10p, Sound Load-In for *She Kills Monsters* in the Hansen Theatre
- TBD, Sound Load-In and Out for Workshop Productions

Check the calendar on the Purdue Theatre Callboard for updates:

<https://cla.purdue.edu/sub/theatreweb/index.html>

### **Shadow Opportunity (Optional)**

For anyone who is interested, they are welcome to shadow the designer during tech rehearsals for a Purdue Theatre Main Stage Production. Unfortunately, there will not be extra credit available for this, but it is a great way to get an inside look at a sound designer's process. Please let me know one week in advance if you are interested in shadowing during tech. There will be a limited number of spots for each show.

## **General University Policies**

### **Diversity & Inclusion**

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. Purdue's nondiscrimination policy can be found at: [http://www.purdue.edu/purdue/ea\\_eou\\_statement.html](http://www.purdue.edu/purdue/ea_eou_statement.html).

### **Mental Health**

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack, <https://purdue.welltrack.com/>. Sign in and find information and tools at your fingertips, available to you at any time.

If you need support and information about options and resources, please see the Office of the Dean of Students, <http://www.purdue.edu/odos>, for drop-in hours (M-F, 8 am- 5 pm).

If you're struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at (765)494-6995 and <http://www.purdue.edu/caps/> during and after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.

### **Accessibility and Accommodations**

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let me know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: [drc@purdue.edu](mailto:drc@purdue.edu) or by phone: 765-494-1247

### **Academic Integrity**

The Purdue Honors Pledge: "As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue." For more information, see: <https://www.purdue.edu/provost/teachinglearning/honor-pledge.html>

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breeches of this value by either emailing [integrity@purdue.edu](mailto:integrity@purdue.edu) or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern.

Purdue prohibits "dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty." [Part 5, Section III-B-2-a, University Regulations] Furthermore, the University Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest." [University Senate Document 72-18, December 15, 1972]

Incidents of academic misconduct in this course will be addressed by the course instructor and referred to the Office of Student Rights and Responsibilities (OSRR) for review at the university level. Any violation of course policies as it relates to academic integrity will result minimally in a failing or zero grade for that particular assignment, and at the instructor's discretion may result in a failing grade for the course. In addition, all incidents of academic misconduct will be forwarded to OSRR, where university penalties, including removal from the university, may be considered.

### **Subject to Change**

Please be aware that you can report issues of academic integrity that you observe, either through the Office of the Dean of Students ([purdue.edu/odos](http://purdue.edu/odos)), call 765-494- 8778 or email [integrity@purdue.edu](mailto:integrity@purdue.edu).

**College of Liberal Arts Classroom Civility Statement**

Purdue University is committed to fostering diversity and inclusion and welcomes individuals of all ages, religions, sex, sexual orientations, races, nationalities, languages, military experience, disabilities, family statuses, gender identities and expressions, political views, and socioeconomic statuses. Please respect the different experiences, beliefs and values expressed by everyone in this course. Behaviors that threaten, harass, discriminate or that are disrespectful of others will not be tolerated. Inappropriate behaviors will be addressed with disciplinary action, which may include being referred to the Office of the Dean of Students.

Please visit Purdue's Nondiscrimination policy for more information:  
[http://www.purdue.edu/purdue/ea\\_eou\\_statement.html](http://www.purdue.edu/purdue/ea_eou_statement.html)

**Health and other emergencies**

According to a memorandum by the Provost Office (August 11, 2009), special care has to be taken to minimize the effect of Pandemic Influenza A (H1N1). In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Here are ways to get information about changes in this course in order of preference: visit the Blackboard web page, email me at [jeffsherwood@purdue.edu](mailto:jeffsherwood@purdue.edu), or call my office phone: 765-496-3081.

**CAPS Information**

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at (765)494-6995 and <http://www.purdue.edu/caps/> during and after hours, on weekends and holidays, or through its counselors physically located in the Purdue University Student Health Center (PUSH) during business hours.

**Violent Behavior**

Purdue University is committed to providing a safe and secure campus environment for members of the university community. Purdue strives to create an educational environment for students and a work environment for employees that promote educational and career goals. Violent Behavior impedes such goals. Therefore, Violent Behavior is prohibited in or on any University Facility or while participating in any university activity.

**Emergencies**

To report an emergency, call 911. To obtain updates regarding an ongoing emergency, sign up for Purdue Alert text messages, view [www.purdue.edu/ea](http://www.purdue.edu/ea).

There are nearly 300 Emergency Telephones outdoors across campus and in parking garages that connect directly to the PUPD. If you feel threatened or need help, push the button and you will be connected immediately.

If we hear a fire alarm during class we will immediately suspend class, evacuate the building, and proceed outdoors. Do not use the elevator.

If we are notified during class of a Shelter in Place requirement for a tornado warning, we will suspend class and shelter in [the basement].

If we are notified during class of a Shelter in Place requirement for a hazardous materials release, or a civil disturbance, including a shooting or other use of weapons, we will suspend class and shelter in the classroom, shutting the door and turning off the lights.

**Subject to Change**

Please review the Emergency Preparedness website for additional information.  
[http://www.purdue.edu/ehps/emergency\\_preparedness/index.html](http://www.purdue.edu/ehps/emergency_preparedness/index.html)



**EMERGENCY NOTIFICATION PROCEDURES** are based on a simple concept – if you hear a fire alarm inside, proceed outside. If you hear a siren outside, proceed inside.

- **Indoor Fire Alarms** mean to stop class or research and immediately **evacuate** the building.
  - o Proceed to your Emergency Assembly Area away from building doors. **Remain outside** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.
- **All Hazards Outdoor Emergency Warning Sirens** mean to immediately seek shelter (**Shelter in Place**) in a safe location within the closest building.
  - o “Shelter in place” means seeking immediate shelter inside a building or University residence. This course of action may need to be taken during a tornado, an active threat including a shooting or release of hazardous materials in the outside air. Once safely inside, find out more details about the emergency\*. **Remain in place** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.

*\*In both cases, you should seek additional clarifying information by all means possible...Purdue Emergency Status page, text message, Twitter, Desktop Alert, Albertus Beacon, digital signs, email alert, TV, radio, etc....review the Purdue Emergency Warning Notification System multi-communication layers at [http://www.purdue.edu/ehps/emergency\\_preparedness/warning-system.html](http://www.purdue.edu/ehps/emergency_preparedness/warning-system.html)*

#### **EMERGENCY RESPONSE PROCEDURES:**

- Review the **Emergency Procedures Guidelines**  
[https://www.purdue.edu/emergency\\_preparedness/flipchart/index.html](https://www.purdue.edu/emergency_preparedness/flipchart/index.html)
- Review the **Building Emergency Plan** (available on the Emergency Preparedness website or from the building deputy) for:
  - o evacuation routes, exit points, and emergency assembly area
  - o when and how to evacuate the building.
  - o shelter in place procedures and locations
  - o additional building specific procedures and requirements.

#### **EMERGENCY PREPAREDNESS AWARENESS VIDEOS**

- **"Run. Hide. Fight.®"** is a 6-minute active shooter awareness video that illustrates what to look for and how to prepare and react to this type of incident. See: [https://www.youtube.com/watch?v=5mzI\\_5aj4Vs](https://www.youtube.com/watch?v=5mzI_5aj4Vs)  
(Link is also located on the EP website)

#### **MORE INFORMATION**

Reference the Emergency Preparedness web site for additional information:  
[https://www.purdue.edu/ehps/emergency\\_preparedness/](https://www.purdue.edu/ehps/emergency_preparedness/)