

THEA427: Sound Design & Technology II

Ball State University, Department of Theatre & Dance
Spring 2026

Instructor: Brandon Reed (He/Him/His)
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Office Hours: 11am-12pm on Monday/Wednesday, or by appointment.

Class Location: Arts and Journalism Building (AJ) 339 / Fine Arts Building (AR) 103.

Course Times: Monday, Wednesday, and Friday from 1pm-1:50pm.

Prerequisites: THEA327: Sound Design & Technology I

COURSE DESCRIPTION:

This class will examine the aesthetic and methodology of designing sound for the theatre, with an emphasis in sound system design, advanced sound technologies, software proficiency, and critical listening. Class will be a combination of hands-on learning, lectures, and class discussion. Subjects will include how to navigate Digital Audio Workstations and advanced techniques for them, analyzing scripts for potential sound cues, research and analyzing scripts through a sound design lens, advanced digital audio editing, sound system design, industry standard paperwork, mixing and programming musical theatre, microphones for musicians and actors, and networking for computers.

COURSE OBJECTIVES:

1. How to analyze scripts for potential sound design moments.
2. How to research as a sound designer.
3. Connecting aural and visual media.
4. Develop a deeper understanding and utilization of sound systems.
5. Create industry standard paperwork for theatrical sound design.
6. Working knowledge of common sound software.
7. Design both the content and system design for an unrealized production of a modern play.

CREDIT-TIME STATEMENT:

This course is worth three credit hours. Each hour of credit requires fifty minutes of in-class work per week as well as an **expected 120 minutes of out-of-class work per week**. This includes reading, research, designing, watching productions, and working on projects.

REQUIRED MATERIALS AND TEXTS:

I will provide pdf copies of all texts, but I recommend buying a hard copy if that is something you enjoy.

Textbooks/Scripts

- *Mountain Mamas* by Daryl Lisa Fazio
 - Available from here: <https://newplayexchange.org/script/2024951/mountain-mamas>

Physical Hardware

- 8GB (or larger) flash drive or portable hard drive.
- Studio Headphones. **Mandatory.** I do not encourage Bluetooth headphones.

Software

- REAPER.
 - Available from <https://www.reaper.fm/download.php>. Please download for our first class, where we will discuss pricing and licensing.
- QLAB 5.
 - Available from <https://qlab.app/download/>. There is no need to download for our first class. We will explore this together a few weeks into the semester. **PLEASE DO NOT PURCHASE A LICENSE FOR QLAB.**
- Vectorworks 2026
 - Available from <https://www.vectorworks.net/en-US/education>. There is no need to download for our first class. We will explore this together a few weeks into the semester. **PLEASE DO NOT PURCHASE A LICENSE FOR VECTORWORKS.**
- CL Editor
 - Available from https://usa.yamaha.com/products/proaudio/software/cl_editor/index.html. There is no need to download for our first class. We will explore this together later in the semester.

ADDITIONAL TEXTS:

I will be pulling several readings from each of these for our lectures. Purchasing these texts is not required but is recommended if you would like to be a sound designer or audio engineer.

Sound Design for the Stage by Gareth Fry

- Available from here. <https://www.amazon.com/Sound-Design-Stage-Gareth-Fry/dp/1785005537#>
- **Publisher:** Crowood Theatre Companions
- **ISBN-13:** 978-1785005534

Sound Systems: Design And Optimization: Modern Techniques and Tools for Sound System Design and Alignment by Bob McCarthy

- Available from here. <https://www.amazon.com/Sound-Systems-Optimization-Techniques-Alignment/dp/0415731011/142-7053661-7863501?psc=1>
- **Publisher:** Routledge
- **ISBN-13:** 978-0415731010

Mixing a Musical by Shannon Slaton

- Available from here. <https://www.amazon.com/dp/1138491446>
- **Publisher:** Routledge
- **ISBN-13:** 978-1138491441

GRADING BREAKDOWN:

1000 Points Max

- FINAL Project – 100 points
- Mid-Term Project – 100 points
- Sound Sketchbooks – 400 points (8 total at 50 points each)
- Show Responses – 150 points (3 total at 50 points each)
- Weekly Responses and Projects – 150 points total (15 total at 10 points each).
- System Design Project – 50 points
- Offline Editor Project – 50 points

GRADING SCALE

- 100% - 90% - A
- 89% - 80% - B
- 79% - 70% - C
- 69% - 60% - D
- 60% and below – F

TESTS AND ASSIGNMENTS INFO:

SOUND SKETCHBOOKS: Every other week, students will be presented with a prompt that they must create a sound collage in response to said prompt. These can be responses to a statement, a reaction to a painting or photo, editing audio to video, or practice with programming QLab. These will be created within REAPER or QLab and submitted via Canvas.

SHOW RESPONSES: Students will be required to attend every mainstage production and then write a paper response based on what they saw and heard of the sound design for that production.

WEEKLY RESPONSES AND PROJECTS. Every week students will be given a prompt to respond to via Canvas that is catered to sound design and audio engineering. This could be a video to watch and respond to; a review of the materials covered in a previous week of class. Each week will be slightly different and contain its own parameters and restrictions.

SYSTEM DESIGN PROJECT. Students will learn how to use Vectorworks to create speaker plots and section views for a theoretical play of the instructor's choosing.

OFFLINE EDITOR PROJECT: Students will learn and use an offline editor for a console of the instructor's choosing to program a scene for a musical of the instructor's choosing. They will learn how to create a mix script as well as program a console as if they were mixing a musical for the first time.

MID-TERM PROJECT: Students will read a modern play of the instructor's choice. They will then formulate their own design concept and ideas based on that play. From there they will create a design statement that will describe the themes and ideas they associate with the script and how their sound design will meet those. They will then create a sound cue sheet that outlines where all they want sound cues within the script to convey their concept. Students will then create the speaker plot, section view, and console I/O for a theoretical sound system to deliver that sound design.

FINAL PROJECT: Students will expand on the Mid-Term Project and create all the content and sound media as described within their sound cue sheets. Students will then program and level set those cues within QLab as if this was an actual production.

LATE WORK:

Late work will be penalized 1 point if received by midnight on the due date. It will be penalized an additional 1 point every day thereafter. No additional late will be accepted after April 27th, 2026. This ensures that all work can be adequately graded in time before the end of finals week.

Extensions can be granted on an assignment, but they must be done in advance of the due date. I will not accept extensions on the day of the due date. Please speak to me after class or via email.

EXTRA-CREDIT:

Students can earn extra-credit by either completing additional Sound Sketchbook. You can find these on Canvas for additional prompts.

MINIMUM GRADE POLICY:

The lowest acceptable grade in a course for credit toward a major or minor in Theatre or Dance is D. Any student receiving a D- or lower must retake the course in order to receive credit towards a major or minor in the department.

ATTENDANCE:

Ball State University does not have an official attendance policy and therefore leaves it up to the instructors to determine their own. Below is my policy for this class.

Attendance and participation for the duration of the class period is mandatory. Every class meeting is important. Most classes are built off a previous class period; missing class can often lead feeling like your missing crucial information.

This class meets three times a week (Monday, Wednesday, and Friday), therefore no student is permitted more than three unexcused absences. Lateness or leaving class early

will be recorded, and as a result your final grade will be lowered. Two tardiness marks will be the equivalent of one unexcused absence.

It is the student's responsibility to keep track of their absences.

That being said, if you are sick, do not come to class. I would rather you miss a day and catch up then risk getting everyone else in class sick. If you email me ahead of class mentioning that you are ill, I will excuse your absence. Do not email me during class expecting to get approved. You have to be an adult and learn to communicate in advance.

If you're ill and feeling like you can still attend class virtually, you can ask a peer in class to host you via Zoom. I will be prioritizing lecturing and won't be able to monitor both in person and on virtual.

In addition to just being in class, I need for you to be on time. I'm also flexible and easy to talk to in person, if an issue has come up, please don't hesitate to reach out to me.

Finally, the following absences are excused and no amount of absences accrued under these conditions may affect the student's final grade in the class: Religious holiday; pregnancy, jury duty, death in the family, travel for University business as documented by an official Ball State Travel Notice, and an extended and documented absence related to illness or health issues (mono, broken leg, pneumonia, etc.). A doctor's note or note from the health center only serves to excuse your absence if it details an extended absence as described above.

Your fourth unexcused absence will result in a 5% grade deduction for the semester, and every subsequent unexcused absence will be an additional 5% deduction.

When you reach your 11th absence it is no longer possible to achieve the course learning outcomes. There are two options at this point:

- 1.) You will receive an "F" in the course and fail it.
- 2.) 2. You may request an Incomplete in the course. In order to do this, you must provide paperwork regarding hospitalization, extensive illness, recurring absences due to mental health issues as documented by a letter from Disability Services, or other documented issue that has caused your excessive absences. **If your documentation is approved, your GPA will NOT be impacted and will be required to complete the coursework in a future semester.** Those details will be worked on an individual basis.

INSTRUCTOR ABSENCE POLICY:

Students should wait for an absent instructor 15 minutes in class sessions of 90 minutes or less, and 30 minutes for those lasting more than 90 minutes, unless directed otherwise by someone from the academic unit.

ZOOM CLASS:

In the event that we need to hold class on Zoom, in advance I will provide a link for us to use for that day. Either via Canvas Announcements or email.

I request that we have cameras on in order for it to feel more personal as well as make it feel a bit more natural for me as a teacher and for you as a student. I recommend setting up in a quiet place with headphones. I do not mind if it's in a place such as your car, dorm room, or etc as long as you are not disturbing those around you.

It is not a requirement to have your camera on, but it will provide the human-to-human connection that makes it easier to understand what is happening in class. It will also make me feel like I'm not speaking into the void.

ELECTRONIC DEVICES

Phones and laptops are allowed in class. We need them in order to do this work.

Electronics are to be used for coursework only. Whether that be accessing assigned reading, referencing things discussed in class, or similar. If you are caught playing media in class that is not relative to the conversation you will be excused from class and counted as an unexcused absence.

In the event of an emergency or if we discuss before class the potential of you stepping out for a phone call for any reason that is fine.

In the end, you are grown adults, it's up to you to focus on class, take good notes, and succeed in your projects. It's not my responsibility to make sure you are not distracted.

OTHER POLICIES & PROCEDURES:

DISABILITY AND OTHER ACCOMMODATIONS

If you need course adaptations or accommodations because of a disability, please contact Disability Services as soon as possible. Ball State's Disability Services office coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or dsd@bsu.edu.

I cannot provide any accommodations for class until I receive this document from either you or from Ball State's Disability Services. You can provide this document at any point in the semester, but the sooner the better. I will not retroactively change grades if this document is submitted later in the semester. The moment I receive this document is when I can provide the accommodations, this is why I recommend submitting this to me at the beginning of the semester.

ACADEMIC DISHONESTY

Academic dishonesty – both intentional and unintentional – is an offense that the university takes very seriously, as do I. For a link to the [Student Academic Ethics Policy](#), which defines the parameters of academic dishonesty and plagiarism, click the link above or check the university website. The penalties for academic dishonesty in this course will begin at a minimum of zero points for the assignment and additional penalties based on the severity of the offense. It is YOUR RESPONSIBILITY to know what constitutes academic dishonesty. The university, the department, and I have provided numerous resources to help you with this. If you want to check something with me personally, don't hesitate. Just don't say, after the fact, "I didn't know that counted as plagiarism." That's unacceptable.

Academic Dishonesty includes—but is not limited to:

- Cheating
- Plagiarism
- Falsely claiming to have completed work
- Cooperating with another person in academic dishonesty
- Knowingly destroying or altering another student's work.
- Attempting to commit an act of academic dishonesty.
- Use of Generative Artificial Intelligence.

More information can be found in the [Code of Student Rights and Responsibilities](#).

ARTIFICIAL INTELLIGENCE IN CLASS

Artificial Intelligence (A.I.) is a tool that is constantly developing. I'm of the mindset that it will benefit humanity in a great way in regard to medicine, technology, and etc. It will make easier tasks for people such as removing tasks that no one wants to or can't do. However, as an artist, it should purely be used as a source of inspiration. A.I. tends to pull inspiration from other existing works it is fed from and therefore is not original. If you want to use generative A.I. as imagery or text for inspiration I'm ok with it. However, it must be purely for inspiration. You must create your own original work based off that inspiration. However, if I detect that it's a literal copy and paste from an A.I. platform and not originally from you, it may result in a deduction or a failing grade on an assignment.

You are an artist; your work should come from your experiences and heart or else it doesn't mean anything. If it's not built from your own experiences and mind then it's not truly art, it's a copy.

DIVERSITY STATEMENT

Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our [Beneficence Pledge](#) and through [university resources found here](#).

OVERALL TRIGGER WARNING RE: CONTENT IN PLAYS:

This course contains material – most notably the plays – that depicts or describes a wide variety of potentially triggering content, including but not limited to murder, suicide, PTSD, sexual assault, and drug usage. I am giving you this general content warning, but just as you will need to do your own research on plays, you'll work on in the future, you will also need to make use of internet resources to determine the particular content in the plays in this course that might contain triggering material for you. To allow you to do your research ahead of time, there is a complete list of the plays/text we will be reading this semester above in the "REQUIRED TEXTS" section.

Your mental/emotional wellbeing are paramount. We recognize and respect your right to decline participation in work involving violence or sensitive material, especially in cases of recent/short-term trauma, and you are not obligated to disclose the reason for declining. That said, you have chosen a major (and a career) that will require your involvement with a wide range of material-some of which you may find uncomfortable. Your ability to successfully navigate this material may impact your career.

THREATENING OR DISRUPTIVE BEHAVIOR:

In the classroom and out, students are required to conduct themselves in a manner that promotes an environment that is safe and conducive to learning and conducting other university-related business.

At Ball State, faculty and staff welcome students into a community with shared values of learning and teaching excellence, academic honesty, social responsibility, equity, and inclusion as outlined in the [Beneficence Pledge](#) and the [Inclusive Excellence Plan](#). This document is designed to provide faculty and other University personnel guidance in responding to disruption in university learning spaces. Disruption by a student in a Ball State learning space is a violation of the [Code of Student Rights and Responsibilities](#).

Obstructing or disrupting the teaching and/or learning process in any campus classroom, building, or meeting area, or any University-sponsored event or activity, pedestrian or vehicular traffic, classes, lectures, or meetings; obstructing or restricting another person's freedom of movement; or inciting, aiding, or encouraging other persons to do so. Note: obstruction or disruption as prohibited here only occurs on campus or in relation to a University-sponsored event or activity including but not limited to field trips, athletic events, study abroad, or alumni events.

You can find more info by viewing the campus's [Responding to Disruption in University Learning Spaces](#) page.

TITLE IX & BSU'S SEXUAL HARRASEMENT AND MISCONDUCT POLICY:

Title IX states: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." - 20 U.S.C. §1681

To view BSU's policy click [here](#).

Please see calendar on the next page. Times and place are subject to change, but all changes will be announced in class or via Canvas Announcements.

THEA427: Sound Design & Technology 2 (Spring 2026)

| Location: AJ339 | | Time: 1pm - 1:50pm (Monday, Wednesday, Friday) | | | |
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| Week | Day | Topic | Homework | Location | Notes |
| 1 | January 5th | DISCUSSION: Intro Day, Syllabus, Download Software | ASSIGN: Read Final Play | AJ339 | |
| | January 7th | DISCUSSION: Review REAPER Basics | ASSIGN: Sound Sketchbook #1 | AJ339 | |
| | January 9th | DISCUSSION: REAPER & Advance DAW Techniques | DUE: Weekly Response #1 | AJ339 | |
| 2 | January 12th | DISCUSSION: Advance DAW Techniques Part 2 | | AJ339 | |
| | January 14th | DISCUSSION: Analyzing Scenes for Sound Design for Cues, Discuss Final Play | DUE: Finished Reading Final Play | AJ339 | |
| | January 16th | DISCUSSION: Research for Sound Design - Coming Up With A Concept. | DUE: Sound Sketchbook #1, Weekly Response #2 ASSIGN: Sound Sketchbook #2 | AJ339 | |
| 3 | January 19th | NO CLASS - MLK Day | | No Class | |
| | January 21st | DISCUSSION: Content Creation - Methods of Creating Sound Effects and Soundscapes. | | AJ339 | |
| | January 23rd | WORKSHOP: Responding To Sound Prompts | DUE: Weekly Response #3 | Zoom | Brandon Out of Town |
| 4 | January 26th | REVIEW: Basic Sound System Design - Bus Architecture, Routing, Input/Console/Output | DUE: Sound Sketchbook #2. ASSIGN: Sound Sketchbook #3 | Zoom | Brandon Out of Town |
| | January 28th | DISCUSSION: Advance Sound System Design 1 - Decibel Math, Reference Signals, Inverse Square Law, Brandon's 3 Golden Rules | | Zoom | Brandon Out of Town |
| | January 30th | WORKSHOP: Deciding What Speakers Where & Routing | DUE: Weekly Response #4 | Zoom | Brandon Out of Town |
| 5 | February 2nd | DISCUSSION: Advance System Design 2 - Gain Structuring, Power amps and Speakers, Phasing/Comb Filtering. | | AJ339 | |
| | February 4th | DISCUSSION: Advance System Design 3 - Focusing Loudspeakers, Extending Horizontal and Vertical coverage (pan & tilt), Using Vectorworks to Determine Coverage. | | AJ339 | |
| | February 6th | WORKSHOP: Patching Sound Systems As A Group | DUE: Weekly Response #5 | AR103 | |
| 6 | February 9th | DISCUSSION: Industry Sound Paperwork - Plots and I/O | DUE: Sound Sketchbook #3 ASSIGN: Sound Sketchbook #4, System Design Project | AJ339 | |
| | February 11th | DISCUSSION: Industry Sound Paperwork - Extended, Potential Work Day for System Design Project | | AJ339 | |
| | February 13th | WORKDAY: In Class Work Day for System Design Project | DUE: Weekly Response #6 | AJ339 | |
| 7 | February 16th | DISCUSSION: Analog Patching & Mixing | | AR103 | |
| | February 18th | DISCUSSION: Mixing Fundamentals | ASSIGN: Show Response - VEAL | AR103 | |
| | February 20th | WORKSHOP: Building Analog Mix | DUE: System Design Paperwork Project, Weekly Response #7 | AR103 | |
| 8 | February 23rd | WORKDAY: In Class Work Day for Mid-Term Project | DUE: Sound Sketchbook #4 ASSIGN: Sound Sketchbook #5 | AJ339 | |
| | February 25th | WORKDAY: In Class Work Day for Mid-Term Project | | AJ339 | |
| | February 27th | WORKDAY: In Class Work Day for Mid-Term Project | DUE: Mid-Term Project, Weekly Response #8 | AJ339 | |
| 9 | March 2nd | NO CLASS - SPRING BREAK | | No Class | |
| | March 4th | NO CLASS - SPRING BREAK | | No Class | |
| | March 6th | NO CLASS - SPRING BREAK | | No Class | |
| 10 | March 9th | DISCUSSION: Reviewing Digital Consoles | DUE: Sound Sketchbook #5 ASSIGN: FINAL Project, Sound Sketchbook #6 | AR103 | |
| | March 11th | DISCUSSION: Mixing Musical Fundamentals - Mix Scripts, DCAs, Scenes, Recall Safes | | AR103 | |
| | March 13th | WORKSHOP: Building Digital Mix | DUE: Show Response - VEAL, Weekly Response #9 | AR103 | |
| 11 | March 16th | DISCUSSION: Mixing Musical Fundamentals - Mix Scripts, DCAs, Scenes, Recall Safes | | AR103 | |
| | March 18th | WORKSHOP: Mixing Solos, Duets, Trios, and Big Numbers | | AR103 | |
| | March 20th | WORKSHOP: Creating A Mix Script | ASSIGN: Show Response - CATS, Weekly Response #10 | AJ339 | Brandon Out of Town |
| 12 | March 23rd | DISCUSSION: Offline Editors for Consoles | DUE: Sound Sketchbook #6 ASSIGN: Sound Sketchbook #7, Offline Editor Project | AJ339 | |
| | March 25th | NO CLASS - Brandon Out of Town | | No Class | Brandon Out of Town |
| | March 27th | NO CLASS - Audition Day | DUE: Show Response - CATS, Weekly Response #11 | No Class | Brandon Out of Town |
| 13 | March 30th | DISCUSSION: RF Technology - Lavs, Transmitters & Receivers, Gain Staging, Locking, Bandwidth, and Intermodulation. | | AR103 | |
| | April 1st | DISCUSSION: A2, Mic Crafts and Prep | | AR103 | |
| | April 3rd | WORKSHOP: Building Multiple Mic Rigs | DUE: Weekly Response #12 | AR103 | |
| | April 6th | DISCUSSION: Reinforcement & Amplification | DUE: Sound Sketchbook #7 ASSIGN: Sound Sketchbook 8 | AJ339 | |
| | April 8th | DISCUSSION: Mic Techniques for a Variety of Instruments | | AR103 | |

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| 14 | April 10th | WORKSHOP: Setting Up A Live Mix | DUE: Offline Editor Project, Weekly Response #13 | AR103 | |
| | April 13th | DISCUSSION: Networking & Dante | | AR103 | |
| | April 15th | DISCUSSION: OSC And MIDI Show Control | ASSIGN: Show Response - Putnam | AR103 | |
| 15 | April 17th | WORKDAY: QLab Triggering LX and Console | DUE: Weekly Response #14 | AR103 | |
| | April 20th | WORKDAY: In Class Work Day for Final Project | DUE: Sound Sketchbook #8 | AJ339 | |
| | April 22nd | WORKDAY: In Class Work Day for Final Project | | AJ339 | |
| 16 | April 24th | WORKDAY: In Class Work Day for Final Project | DUE: Weekly Response #15 | AJ339 | |
| 17 | April 27th | WORKDAY: In Class Work Day for Final Project | DUE: Final Project, Show Response - Putnam, Weekly Response #16 | AJ339 | |