Intro to Sound Production & Design

Course Overview

Basic Info

- Course Number: MART 245.50
- CRN: 72386
- Credits: 3
- Location: Online, Canva Link:: https://canvas.umt.edu/courses/9737
- Main Content Link: https://https://montana-media-arts.github.io/sound-fundamentals/
- University Unit: School of Visual and Media Arts (SVMA), College of the Arts and Media (CAM), University of Montana

Professor/Instructor

- Kate Lloyd
- E-Mail: kate.lloyd@umconnect.umt.edu

Description

Introduction to the Language and Practice of Sound Production & Design introduces students to the field of sonic art. This course is intended as a foundation course to create shared terminology, skill sets, aesthetics, and techniques for students to utilize as they take additional sound production, sound design, or audio courses within the School of Visual and Media Arts (SVMA) or larger College of the Arts and Media (CAM). This course includes the study of notable examples in sound production, music, intermedia, and installation. Starting with the listening, students will examine the practices and innovations that led to the most current ideas about Sonic Art, and from here develop contemporary

analytical methods for exploring Sound Design & Production. Additionally, students will apply this knowledge to the creation of their own sonic art works.

This course will involve a mix of;

- critical listening and deep listening
- analysis of sonic art works
- discussions of articles and readings relevant to weekly topics
- writing about sound production & design
- study of the science of sound, hearing, and psychoacoustics
- creation of sound design works utilizing readily available tools and techniques.

Assessment of students will be conducted through written analyzes of artworks and readings, in-class discussions, and the creation of unique sonic artworks.

Objectives & Student Learning Outcomes

Through this course, students are expected to demonstrate an ability to:

- Exhibit basic literacy in the aesthetics and techniques of Sound Production.
- Demonstrate an understanding and basic ability to utilize common ideas and vocabulary from the field of Sound Production & Design through writing and discussion.
- Identify and understand the scientific principles underlying sound, hearing, and psychoacoustics.
- Describe sonic arts in broader historical and cultural frameworks.
- Create original sound design works using common tools for production and analysis.

Course Modality/Format

This course will be delivered via an *online* modality. This means all content is available via the web and allows you to approach each week on your own schedule.

Additionally, I may hold an optional, in person study session. This session will not cover new material or material beyond the content available each week via the web. However, it will serve as an opportunity for students to hear about the content from me directly, engage with me, and ask questions. You will be expected to have read through the current course modules prior to these sessions.

Course Recording

This serves as an explicit declaration that all course meetings may be recorded via the Zoom platform. These will then be available for further study at a later time by students of the course.

Course Websites

This course will be facilitated via multiple web technologies.

- Canva– will serve as a secure location for you to submit homework, receive feedback, and engage in discussion forums with your colleagues.
- Content Website – Content for this site will primarily exist on an exterior website, hosted via GitHub. This is where you will complete most of your learning.
  https://https://montana-media-arts.github.io/sound-fundamentals/

- I will leave the course website up and live at the conclusion of this course. In this way, it can serve as a living resource for you in your sonic art practice and work. *Please note: Since I will leave this website live, this also serves as an opportunity for you to 'look ahead' at the content to come. However, content IS NOT considered live or required for this course until the week it is active. In other words, I WILL change weekly content from semester to semester, therefore you cannot guarantee what you look at in the future will actually get taught.*

Pre-Requisites

This is an introductory course intended for students interested in the field of sound production & design. As such, there are no pre-requisite courses or skills necessary.

Books, Supplies, & Technology

This course does require your purchase or acquisition of some software and technology. However, if you live off campus and will not have access to the gear room to check-out microphones or digital recorders, I highly recommend downloading a "pro audio "recording app for your phone--since it will serve as your primary recording device. In the app description make sure it mentions recording/exporting file formats .mp3 or .wav

I have not tested this app yet but this one looks good for iPhone and android and its free.
https://www.dolby.com/apps/dolby-on/Links to an external site.

No one is required to check out the gear, however if you would like to learn professional skills and industry standards, please take advantage of this opportunity. Please email me so we can set up a time to meet and I can walk you through the checkout procedures.

Software

You will be required to have a working Digital Audio Workstation on your computer for assignments and successful completion of this course. For this semester, instruction of technology specific skills will be demonstrated and taught in Reaper. Reaper is a widely used Digital Audio Workstation (DAW) compatible with macOS, Windows, and experimentally on Linux.

With the growth of 3D and immersive sound, it is quickly becoming an industry standard. Reaper includes many benefits to other DAWs. Of particular importance for this fundamentals level class is their financial model. Whereas, most DAWs cost hundreds of dollars, even for student discounted versions, Reaper takes a different approach. Initial downloads of the software include a 60-day trial. After 60 days, the software encourages you to purchase a license, but does not require it, and will remain fully

functional. Licenses for individuals grossing less than $20k a year through their work with Reaper are only $60 and are perpetual (not yearly or subscription based) until major version updates occur.

If you already use a different digital audio workstation (e.g. Pro Tools, Logic Pro, Studio One etc) please email me and we will discuss whether I will allow it to be used instead of Reaper—I am well versed in Reaper, Pro Tools and Logic Pro. While I can help you troubleshoot other programs, it may take additional time for me to have answers for you. I will need to ensure you understand how to use the other software.

Headphones

You will need to acquire a pair of headphones for work in this class. I would suggest you invest in a good pair, as part of your grade will be based on the technical quality of your work. If you cannot hear issues because you have poor quality headphones, then you are risking poor grades.

You are looking for reference quality headphones. That means headphones that present your audio to you as honest and neutral as possible. A bad mix should sound like a bad mix. Hyped headphones that accentuate bass or high frequencies in flattering ways can hide detail and mix issues.

A discussion of headphones will occur on the first day of the course.

Suggested Headphones
Headphones, like all professional media gear can be cheap or incredibly expensive. With that in mind, you can get good quality headphones that don't break the bank. Here are a few of my suggestions.

Highly Suggested

- [Shure SRH440 Professional Studio Headphones](#) - $98 (I have owned several pairs of these through the years and they still remain a favorite.

- Sony MDR7506 Professional Large Diaphragm Headphone - $98 - (These have been an industry standard for recording and working with headphones for many years, they were my first pair as well. However, the earpads started detaching pretty quickly and it was a pain to get back on. In my opinion, the Shures listed above fit over my ears better, sound better and have a more rugged design.

- *Other Recommendations*
- Samson SR850 Semi-Open-Back Studio Reference Headphones - $34 - These are the cheapest that will still "get the job done".
- AKG K240STUDIO Semi-Open Studio Headphones - $67 - These are great headphones. However, they are "semi-open" which will both improve sound quality for mixing and make anyone sitting within 10 feet of you potentially stare in annoyance.
- Sennheiser HD 202 II Professional Headphones (Black) - $40
- Audio-Technica ATH-M50x Professional Studio Monitor Headphones - $145

- I owned a pair of these for years and loved them. There is also a wireless/bluetooth version of these, that additionally includes an optional wired connection. If you want Bluetooth headphones, I recommend these...though I am opposed to mixing with Bluetooth because there is quality loss as opposed to a wired connection.
- beyerdynamic DT 770 PRO 32 Ohm Studio Headphone - $179

For more info, the following guide provides great information on headphones--

- https://www.soundonsound.com/sound-advice/studio-headphones-everything-you-wanted-know

  SOS magazine is my go to for gear reviews as well as educational articles for sound engineering.

(Always listen to your tracks on other devices. For example, audio mixed to headphones may not sound good to you or loud enough in your car or if sound for film—from tv or theater speakers.)

Computer

You will need access to a computer capable of running modern audio synthesis and signal processing environments, as well as digital audio workstations (DAWs) and editing software. This computer should also be capable of real-time signal processing through analog inputs and outputs (i.e., using an audio interface or web cam). Please leverage departmental resources whenever necessary. There are labs on campus, and perhaps at libraries wherever you are located, which should have computers that fit your needs. If you are having difficulty locating one, please let me know as soon as possible. Last year I had Reaper installed on a few computers in the gaming lab at the UC that I can get you access too. The public libary here in Missoula will let you check out laptops—I believe many began doing this during covid so worth calling the one closest to you.

NOTE: This course may have an optional meeting via Zoom. If you intend to attend these meetings, you will need a computer capable of handling Zoom video conferencing ap. This should also include a capable microphone, speakers, camera, and visual display.

Books

There are no required texts that you must purchase for this course. All readings, music, or sound examples will be available to you through web links, the library, or the class Moodle.

Course Policies

Course Evaluation

Student work and progress will be assessed through:

- In-class participation, discussions and critiques
- You are expected to engage in class discussions about technical and artistic issues.
- You are expected to engage in class discussions about outside reading and listening.
- Artistic Projects
- You will be assigned artistic projects to practice the techniques being discussed in class. These are critical to your development.
- Each project will involve an artistic component that allows you to explore the application of specific techniques/topics to your creative process.
- These creative works will always be presented in class, followed by a response from your classmates so that all may learn collectively.
- Each project also requires a written report detailing the work you did, the artistic concepts you engaged in, your perceived success of the project, and influences on this work.
- Listening and Reading Responses: This course will require written engagement with ideas, issues, and techniques throughout the semester. These written responses are an opportunity for you to practice incorporating language, information, and ideas presented in class, the readings, and listening into your academic work.
- There will be a few multiple-choice quizzes on key terms/audio technology vocabulary.

Grades

Final Grades

Grades will be determined according to the following breakdown:

- Forum-based participation, discussions, listening/reading responses, quizzes and critiques: 15%
- Creative and Technical Skill Development Projects: 50%
- Final Creative Project: 20%
- Artistic Work: 15%

Letters are assigned according to the following final course percentages:

Grade	% Range
A	[93-100]
A-	[90-93)
B+	[87-90)
B	[83-87)
B-	[80-83)
C+	[77-80)
C	[73-77)
C-	[70-73)
D	[60-70)
F	[0-60)

Late Work

Late Work

IMPORTANT: Since projects are experienced and critiqued as a group through the discussion forum critique model, late projects are not generally permissible and may not be accepted.

Documentation assignments or weekly sketches handed in after the due date and time will have points deducted for lateness. This will be in addition to any points deducted for content. Those that are uploaded late but within one day of the due date will lose 5% for lateness. For those uploaded after that, the number of deducted points will be at the discretion of the professor, who reserves the right to no longer accept it.

I do understand that "life happens," which may prevent you from turning an assignment in on time. When possible, please send me an email indicating that your assignment will be late and your reason for the late submission. If you are having difficulties with a particular topic, the sooner you reach out the sooner you and I can schedule a time to meet where I can help you through the assignment. Please do not wait to reach out, I will work with you as much as possible, to help you stay caught-up or to catch-up.

I cannot speak for all your professors but no matter what the case may be for late assignments, your ability to reach out and communicate with me will go a long way!!

Course Workload

This course takes time. Some things might be easier than others.

This course will be broken up into "weekly content modules". Each week, a new module will be released on the same day of the week, you will then have one week from that date to complete that week's module.

Some week's will be more intense than others. But generally, you should plan to spend 3-9 hours a week on course work (including: working through the content and lectures; completing readings, listening's, and videos; and completing weekly homework assignments).

In addition, there will be a final presentation of materials, which will be broadcast on the University radio station, KBGA. Since this is an online course, your attendance will be optional, but the

presentation of your work will be mandatory. The final project is the only assignment that CANNOT be late. Its a radio show set at a specific time and date, that only happens once. Also, once I have everyone's projects, I will only have a day to master all of the tracks and create a playlist.

Lastly, you will need to get in the habit of labeling your assignments/files correctly. There is nothing worse than not being able to find your work because of poor naming procedures, especially in a time crunch. That said, there are 67 students taking this class, and when I arrange the final projects, relabeling each track with your name and title is a nightmare. As the course progresses, I will start taking points off if this isn't done correctly, particularly for the final project.

For Example: Artist Name_ Song Title

For an audio track: Kate Lloyd_My Song

For other assignments : Your Name_assignment Description_date submitted

Kate Lloyd_Final Project Proposal_08-21

Zoom Related Information

Classes may be offered via Zoom, at the discretion of the instructor, or as a result of University policies.

Zoom Attendance

When optional class sessions occur via zoom, you are invited to be present in class. Even though most classes will be recorded and these recordings can be used to experience the conversation that occurred, these do not substitute for an in-class experience.

Zoom Etiquette

When attending class via Zoom, you are expected to act similarly to how you would if attending in-person. This means:

- Students should plan on having their cameras on so that everyone in the class may engage with them via discussion. (The Instructor will inform students when it is appropriate or necessary for cameras to be off.)
- Students should ensure that they attend Zoom-based courses somewhere with a sufficiently fast and large-enough-bandwidth internet connection so as to facilitate multi-directional video conferencing—aka a decent wifi connection.
- Students should ensure that they are presentable visually.
- Students should ensure that their camera background is professional and free from unnecessary visual/audio distractions.
- Students should position themselves so that they do not need to constantly move around their space with their camera.
- Students should ensure sufficient lighting for their faces, so that everyone can engage with them.
- Students should ensure that the quality of their audio (both microphone and speakers) are sufficient to facilitate high-quality conversation.

SVMA, CAM, and University Policies and Information

School of Visual and Media Arts

Information about the School of Visual and Media Arts (SVMA) is available at:

- https://svma.umt.edu

Please join SVMA social media to stay informed about events and happenings in our school.

- Instagram: https://www.instagram.com/umt_svma/
- Facebook: https://www.facebook.com/UMTsvma

Student Art Collective (this is primarily for art students) The collective is a student –organized and student-led group that sponsors art related workshops, events, and the Annual Juried Student Art Show. Look for informational posters. The Director recommends soliciting student participation in art classes.

Academic Honesty, Plagiarism, and Cheating Policy

Students are expected to adhere to academic conduct policies of the University of Montana as explained in Section V of your University of Montana Student Conduct Code: "Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. Academic misconduct is defined as all forms of academic dishonesty, including but not limited to: (1) plagiarism, (2) misconduct during an examination or academic exercise, (3) unauthorized possession of examination or other course materials, (4) tampering with course materials, (5) submitting false information, (6) submitting work previously presented in another course, (7) improperly influencing conduct, (8) substituting, or arranging substitution, for another student during an examination or other academic exercise, (9) facilitating academic dishonesty, and (10) Altering transcripts, grades, examinations, or other academically related documents."

Dishonesty will not be tolerated in this course. This includes, but is not limited to, cheating on tests, cheating on assignments, fabricating information or citations, having unauthorized possession of examinations, submitting work of another person or work previously used, or tampering with the academic work of other students. Academic misconduct is defined within the Student Conduct Code handbook.

Students who cheat or plagiarize will receive academic sanctions, which may include an "F" grade on the assignment, examination, and/or in the course. Students will also be reported to the Dean of Students for possible further disciplinary action.

Using Code or Media Found Elsewhere

It is easy to find code and media (i.e. videos, sounds, images, etc.) online. If you use code or media from elsewhere (which you will at times), I expect you to cite the work and author.

If you use found code, you are expected to comment each line, as to what each line does programmatically. *Do not* summarize several lines of code from a high level (i.e., TV Guide). I expect you to comment each line on a granular level. In addition, in these cases, I am also looking for significant modification of the code, for you to enact your own ideas and to experiment heavily.

Significant modification means beyond variable name and value changes. It is bending these concepts to your idea, especially graphically. It is not a copy and paste job. Also, never more than 40% of your code may be supplied from elsewhere. Period. If you use code from online, whether for inspiration, modification or reference, I expect to see a link in your comments from where you got the code and who wrote it. Otherwise it will be considered as plagiarism, and you will fail the assignment. The code must have a reference, along with URL and be commented out LINE BY LINE.

If you use found media, *YOU* are responsible to ensure it is used according to fair-use guidelines. The pieces you make in this course are intended to be portfolio-quality works. Therefore, you should not utilize found media with restrictive use guidelines or licenses. You can read more about various licenses at;

- opensource.guide
- choosealicense
- GNU Licenses
- Creative Commons Licenses
- opensource.org

For found media, you are also expected to cite the media in your documentation for the project. You will also be asked to take screenshots of your audio sessions. I will not accept your audio tracks without this proof—yes you can use royalty free music and sound effects but if I only see that you uploaded the tracks and have not manipulated them to create something new, you will not receive credit.

Sensitive Subject Matter & Censorship

This course operates under a no censorship policy, and you should feel free to experiment with challenging topics in your projects. That said - if you submit work with violent or sexually explicit themes, containing hate speech, racial slurs or other sensitive subject matter, I might contact you to request more background information on your choices.

Art scholarship and art practice along with teaching and learning involve a critical exploration of ideas, theories, art-making practices, and art movements that encompass such things as the human body, sexuality, race, gender, religions, and cultures. This course can touch upon any of the above categories with an expectation that students will actively participate in all course assignments, discussions, and tests. Given this information, it is the student's obligation to determine that the requirements conflict with his or her core beliefs. If the student determines that there is a conflict with his or her beliefs, one of the following actions needs to be taken: 1) drop the class before the last day to drop a course without penalty; 2) meet with the instructor within the first week of classes to determine if an accommodation can be made. (Note, faculty, are not required to grant content accommodations.)

Be Kind

Be respectful to each other, help each other, and be considerate in your communications with the instructional team. No trolling shared work and ideas. Be constructive with any critical feedback you give. Your classmates are your most important allies. If you cant figure something out technically or have questions about an assignment—reach out on the Canva discussion board first. Most likely someone else had the same issue and it's been resolved. Some students in this class will have some music thery backgrounds or audio editing knowledge. Others will have no previous experince with any of the assignments. We are not here to make assumptions or judgment's –use the "sandwhich" concept when critiquing others—Say something you like about the work, offer a creative/helpful suggestion, end with a positive. A lot of these assignments deal with "sonic exploration/experimentation." Often, those with musical experience struggle with these more than those with none because it requires stepping outside western theory rules or what society has conditioned us to believe is required to make art "good."

Diversity Statement

Your experience in this class is important to me. I welcome individuals of all backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, races, national origins, religious affiliations, sexual orientations, ages, abilities, and other visible and nonvisible differences. Please know that I will gladly honor your request to address you by an alternate name or gender pronoun. All members of this class are expected to contribute to a welcoming, respectful, and inclusive environment for every other member of this class.

Student Support Resources

Disability and Equity Accommodations

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity (ODE). If you anticipate or experience barriers based on disability, please contact the ODE at: (406) 243-2243, ode@umontana.edu, or visit www.umt.edu/disability for more information. Retroactive accommodation requests will not be honored, so please, do not delay. As your instructor, I will work with you and the ODE to implement an effective accommodation, and you are welcome to contact me privately if you wish.

The Writing and Public Speaking Center

The Writing and Public Speaking Center provides one-on-one tutoring to students at all levels and at any time in the writing process. Visit now. Visit often. They're ready when you are. www.umt.edu/writingcenter.

Mental Health and Wellbeing Policy

The University of Montana is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, visit https://www.umt.edu/diversity/resources/mental-health.php

Land Acknowledgement

he Séliš-Ql̓ispé Cultural Committee created the language, *"The University of Montana acknowledges that we are in the aboriginal territories of the Salish and Kalispel people Today, we honor the path they have always shown us in caring for this place for the generations to come."*

Changes to the Course

I reserve the right to change the intended content of this course throughout the semester. This may be done to adjust for the speed of the class, to better meet educational goals, or to account for changes in technology.