Syllabi

Course Syllabi

Fall 9-1-2018

MART 445.01: Sound for Digital Media

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Syllabus | Sound for Digital Media (MART 445) (

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COURSE OVERVIEW (

Description (

Sound for Digital Media is a project based course focusing on the technical and aesthetic qualities of creating sound and music for and with digital media. This course will aim to teach students technical skills, including; basic digital signal theory, signal flow, basic microphone types and techniques, session management and workflow, assisted sound synthesis, digital signal processing with off-the-shelf tools, basic editing, basic mixing, and basic mastering. Artistically and creatively, this course will study artists involved in electronic music, sound for the web, sonic artists, and commercial sound. The study of these artists will offer an aesthetic grounding for students to work against as they create their own audio based art or music.

This course will involve weekly sketches and two larger compositions/artworks.

Objectives

Through this course, students are expected to:

- Gain a vocabulary and understanding about sound and audio
- Become versed in some of the tools and techniques available for the creation of sound and audio, including:
  - basic digital signal theory
  - signal flow
  - basic microphone types and techniques
  - session management and workflow
  - assisted sound synthesis
  - digital signal processing with off-the-shelf tools
  - basic editing
  - basic mixing
  - basic mastering
- Explore their creative process through sonic-based art works or compositions
- Present one larger work to the public

Students are expected to bring ideas to explore these techniques. The goals of the projects are not simply about the successful application of the technical processes. Instead, the goal is to integrate these technical elements to make work that is meaningful.

Professor/Instructor

- Dr. Michael Musick
- E-Mail: michael.musick@umontana.edu.
- Office: McGill Hall, 232.

Course Websites

- Course GitHub Repo (This git repository holds code examples, an issues board, as well as course Wiki.)
- Direct Link to Course Wiki

Pre-Requisites

For this semester, there are no specific pre-req's for this course. Instead, you are expected to utilize your previous expertise in sound, audio, music, and film towards the projects presented in the course.

With that being said, it is suggested that you have taken Principles of Sound (MART 330), as well as Sound for Film (MART 345).

Books and Supplies (

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.

Headphones

You will need to bring 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 highs in flattering ways can hide detail and mix issues.

What not to get

Apple earpods, other in-ear pods, beats headphones, or Marley brand tend to not be "accurate" sounding gear.

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.

- Samson SR850 Semi-Open-Back Studio Reference Headphones - $30 - These are the cheapest that will still "get the job done".
- AKG K240STUDIO Semi-Open Studio Headphones - $57 - 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) - $60
- Sony MDR7506 Professional Large Diaphragm Headphone - $80 - (An industry standard for recording and working with headphones)
- Sennheiser HD280PRO Headphone - $100 - (I have had a pair of these since I was an undergrad. They are still my main pair of % headphones for work when I need them. They are built to last and sound great.) %
- Audio-Technica ATH-M50x Professional Studio Monitor Headphones - $150
- beyerdynamic DT 770 PRO 32 Ohm Studio Headphone - $170

For more info, the following guide provides good information on the two major types of headphones and suggestions.

- Best Studio Headphones: The Ultimate Musician's Guide

Computer

You will need access to a computer capable of running modern 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.

Software

For this semester, we will be heavily utilizing Ableton Live. Ableton Live is a modern DAW that (in my opinion) emphasizes creation and performance as opposed to editing and mixing. This software has become incredibly popular within the industry and amongst artists.

The downside to Ableton Live is that it is not free. In fact, it is relatively expensive. We will have a number of copies available for use in the computer labs. You are welcome to do all of your work here on these computers. If you find yourself liking Ableton, I would encourage you to consider purchasing it. Currently, Ableton Suite is $449 for students and Ableton Standard is 269. The difference between Ableton Suite and Standard is substantial. Suite offers a lot more processing plugins, instruments, and midi effects, as well as Max for Live. You will be fine with Standard in this class, but may find yourself wanting more later.

- Ableton Live for students and teachers

You can also download a 30-day trial version of Ableton if you want to play around more. Although I would encourage you to consider saving this till the end of the semester, when you want to do more work at home.

Policies (

Course Evaluation (

Student work and progress will be assessed through:

- Weekly Sketches
  - You will be assigned weekly sketches/compositions/exercises to practice the techniques being discussed in class.
  - These are critical to your development.
- Projects
  - There will be two assigned projects throughout the semester that relate to the current topics being discussed.
- Project Documentation
  - Each project will require project documentation, including; a demo video, written technical report, and written description.

Projects

We will have two projects throughout the course that are relevant to concepts, techniques, and creative ideas from recent content.

Project grades will be based primarily on the student's ability to:

1. Demonstrate an understanding of the specific characteristics and integrative capabilities of the assigned topic through artistic output, written documentation, and technical achievement.
2. Articulate a clear and concise perspective.
3. Present an organized artistic piece, as well as; technical report, file/program structure, and demo video.
4. Demonstrate creativity beyond the expected technical requirements.
5. Properly and punctually deliver all assignment files.

Please Note: All Projects are required for this course. Failure to complete and submit a project will result in a failing grade for the course. There are no exceptions to this rule. Completion of this course requires all projects be completed.

Participation

This class will be participatory, and you are expected to participate in discussions and give feedback to other students.

Grades

Final Grades

Grades will be determined according to the following breakdown:

- In-class discussions and critiques: 10%
- Weekly Sketches: 50%
- Project 1: 10%
- Project 2: 30%

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	0-59

Late Work

IMPORTANT: Since projects are experienced as a group in class or through a public presentation, late projects are not permissible and will 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.

Attendance

- Attendance will be taken at the beginning of every class
- Critique days are mandatory. No exceptions. No tardiness.
- Contact me in advance if you will not be in class. (email is preferred)
- Unexcused absences will affect your grade.
- One absence is allowed; after that, your final overall grade for the course will drop by 2.5 pts out of 100 for each additional absence.
- You are expected to work with colleagues to catch-up on what you missed.

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.

Plagiarism is the presentation of the work of another without acknowledgement. As defined by the University of Montana's Student Conduct Code, plagiarism is "Representing another person's words, ideas, data, or materials as one's own." Students may use information and ideas expressed by others, but this use must be identified by appropriate referencing.

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.

Students with Disabilities

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. Students with disabilities are encouraged to plan ahead and can contact Disability Services for Students (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154, or call (406)243-2243. I will work with you and Disability Services to provide an appropriate modification.

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.