Creating Sounds from Scratch

COURSE OVERVIEW

Creating your own sounds rather than relying on tired sound effect libraries can give your designs a unique aural vocabulary. This course will provide a thorough introduction to the creation and manipulation of synthesized and sampled sounds. We will use a series of software packages to build, analyze, and modify digital audio to create sounds that can feel realistic and/or fantastic.

PREREQUISITES

This is a graduate level class restricted to MFA Sound Design majors. Other graduate students or advanced undergraduate students may be admitted with instructor approval.

ATTENDANCE

As much of class time will be spent in hands-on sessions or discussions that cannot be replicated outside the classroom, class attendance is mandatory. Students will be held responsible for any content missed in class. Absences & tardies will be excused at the discretion of the instructor.

GRADES

Grades will be determined according to the Structure of the Observed Learning Outcome (SOLO) Taxonomy, as proposed by Biggs & Collis. In SOLO Taxonomy, evaluations are not made through objective “right & wrong” grades, but are instead made through subjective evaluation according to clear standards.

In an ‘F’ project, the task is not approached appropriately, the student has inadequately evaluated the purpose and, and she uses too simple a method of solving the task. This is called the *pre-structural* level.

In a ‘D’ project, simple and obvious choices & connections are made, but their significance is not grasped by the student. This called the *uni-structural* level.

In a ‘C’ project, a number of choices & connections are made, but the meta-connections between those choices are missed, as is their significance to the project as a whole. This is called the *multi-structural* level.

In a ‘B’ project, the student appreciates the significance of their individual choices & connections in relation to the entire project. This is called the *relational* level.

In an ‘A’ project, the student makes choices & connections not only within the given task but also beyond it. She is able to generalize and transfer the principles from one aspect of the project to other aspects or other subject areas. This is called the *extended abstract* level.

The following factors will determine your final grade:

*Projects (45%):* Evaluation will be based parameters outline in the project overview sheets.

*Participation & Homework (55%):* Active class participation and discussion will also account for a portion of the final grade. Conduct as per the previous section will be factored into this grade. On days when homework is due, half of the day’s participation & homework grade will be based on the homework.

PROJECTS

Project 1 – Spiderman’s Web Sling

Project 2 – DIY Environment

Project 3 – DIY Event

A NOTE ON SOFTWARE

For the sake of ‘being on the same page,’ we will be using certain software and hardware tools in class. When working on projects and homework assignments outside of class, you need not feel bound to use the same software that we are using in class. In fact, consider yourself encouraged to explore new software to find new ways to make and change sounds.

SUPPLIES

Students will not be required to purchase any text, but will have to read texts on reserve in the Drama Office and online at the class website. Supplemental reading may be recommended.

Students have two options for turning in large projects. One is to post it to a Dropbox (or similar) site and share the link. The other is to purchase a USB flash-drive to be dedicated to the sole use of this class. The drive must be clearly labeled with the student’s name on the outside of the drive. Students should not store any material for any other classes on the drive.

CLASS CALENDAR

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| Week 1 | Introduction to synthesizer architecture and hardware data control (Absynth)Tuning, sampling, processing, and LFO manipulation (Absynth) |
| Week 2 | Enveloping and waveform creation (Absynth)Sample analysis and recreation (Absynth) |
| Week 3 | Present Project #1Max/MSP overview (Max/MSP) |
| Week 4 | Data Processing (Max/MSP) |
| Week 5 | Audio Processing #1 (Max/MSP) |
| Week 6 | Audio Processing #2 (Max/MSP)External Control: MIDI & OSC #1  |
| Week 7 | Present Project #2External Control: MIDI & OSC #2 |
| Week 8 | External Control: MIDI & OSC #3 |
| Week 9 | TBD/overflow |
| Week 10 | TBD/overflow |
| Exam | Present Project #3 |

(this schedule is subject to change based on our pace, digressions, and major life events)