Eugenio Maria de Hostos Community College – Digital Music Program

Digital Music 201 – Synthesizers, Sampling & MIDI Production

Course Description:
This course introduces students to important skills in sound synthesis, sampling techniques, and MIDI production. Students will gain a better understanding of the history of these important elements as well as the history of electronic music. Students will learn how to work with the electronic keyboard as a tool in audio production, music composition, arranging, and sound design and gain a better awareness of how synthesis, sampling, and MIDI continue to play an important role in sound production. By means of "hands-on" exercises and projects working in actual production environments, students will gain competence with one of the most important tools in a music professional's arsenal.

Course Objectives:
Students who successfully complete this course will have:
• Developed a better understanding of music synthesis
• Gained greater experience working with digital samplers
• Developed an greater understanding of MIDI protocol
• Gained experience with MIDI sequencing
• Improved their skills developing and working with audio loops
• Gained greater experience with Foley and ambient production
• Developed stronger critical listening skills

Credit Hours:
3 hours

Pre-requisites:
• DM 101 Fundamentals of Music at the piano
• DM 106 Introduction to Recording Techniques

Strongly Suggested:
This class has been designated as web-enhanced. Many of the required tasks will be performed on-line. In addition, much of the research will require the use of library databases. It would be an advantage if students had:
• Familiarity with the Internet & web site creation
• Access to the Internet from home or elsewhere
• An active email account
• An active Server account

Due Dates:

Late assignments will not be accepted without a physician or counselor's note.

Course Schedule:

#	Topic	Homework
1	Syllabus, MIDI & Synthesizer History	
2	MIDI Signal Flow, Working with PT	Comp - Major Key
3	Harmonics, Simple & Complex Waves / Quiz 1	Comp - Minor Key
4	Synthesis Terminology / Assign Synth for Presentation	Synth Presentation
5	Synthesizer Sound Design Studio Day	
6	Survey of Synthesizers in Pop Music / BPM	
7	Designing Specific Sounds / Rhythm / Quiz 2	Comp - Sidechain
8	Midterm Exam	
9	History of Sampling	Sample Presentation
10	Sampling Terminology and Techniques	Comp - Breakbeat
11	Sampling Live Instruments - Studio Session	
12	Elastic Audio	Collect Main & Acca tracks
13	Final Project Studio Session 1	
14	Final Project Studio Session 2	Final Project
15	Final Project Presentation & Critiques	

• Composition 1 - Major Key: Produce music demonstrating any major key with focus on chord progressions and a topline melody.
• Composition 2 - Minor Key: Produce music demonstrating any minor key with focus on chord progressions and a topline melody.
• Composition 3 - Produce music where at least one instrument is sidechained to the kick drum
• Composition 4 - Sample a classic breakbeat to produce a new track

• Presentation 1 - Synthesizers: Give a two minute presentation on a class synthesizer with focus on history, unique features, and examples where the synth can be heard in popular music
• Presentation 2 - Sample Presentation: Select a contemporary sample-based song and show the class the section of the original song that was sampled

Grading:
200 - Compositions (4)
200 - Presentations (2)
100 - Quizzes (2)
200 - Midterm
200 - Final Project
100 - Participation (Attendance, Punctuality, Contribution to class discussion, Preparation, etc)

Grades:
90-100 A   80-89 B   70-79 C   60-69 D   0-50 F
There is no R grade in this course

Notes on the Grading Criteria:
Work will be evaluated according to the following criteria:
• Mastery of the concepts
• Understanding of issues introduced
• Originality of approach
• Presentation
• Participation

Participation:
A student's participation grade is based primarily on their attendance and participation in class. Attendance is mandatory for every single scheduled class. More than three absences amount to a failure.

Academic Policies (from Catalogue):
Hostos Community College believes that developing a student's abilities to think through issues and problems by themselves is central to the educational process. Since the Hostos College degree signifies that the student knows the material s/he has studied, and the practice of academic dishonesty results in grades or scores that do not reflect how much or how well the student has learned, understood, or mastered the material, the College will investigate any form of academic dishonesty brought to its attention. If the charge of academic dishonesty is proved, the College will impose

sanctions. The three most common forms of academic dishonesty are cheating, plagiarism, and bribery.

Ethical Use of Content
Students are advised to exercise caution in using digital material downloaded from the Internet in producing their own educational multimedia projects, because there is a mix of works protected by copyright and works in the public domain on the network. Access to works on the Internet does not automatically mean that these can be reproduced and reused without permission or royalty payment and,
furthermore, some copyrighted works may have been posted to the Internet without authorization of the copyright holder.

Fair Use Guidelines for Educational Multimedia
Students may incorporate portions of lawfully acquired copyrighted works when producing their own educational multimedia projects for a specific course.

General guidelines include:
• Up to 10% or 3 minutes, whichever is less, in the aggregate of a copyrighted motion media work may be reproduced or otherwise incorporated as part of a multimedia project.
• Up to 10% or 1000 words, whichever is less, in the aggregate of a copyrighted work consisting of text material may be reproduced or otherwise incorporated as part of a multimedia project created under Section 2 of these guidelines. An entire poem of less than 250 words may be used, but no more than three poems by one poet, or five poems by different poets from any anthology may be used. For poems of greater length, 250 words may be used but no more than three excerpts by a poet, or five excerpts by different poets from a single anthology may be used.
• Up to 10%, but in no event more than 30 seconds, of the music and lyrics from an individual musical work (or in the aggregate of extracts from an individual work), whether the musical work is embodied in copies, or audio or audiovisual works, may be reproduced or otherwise incorporated as a part of a multimedia project. Any alterations to a musical work shall not change the basic melody or the fundamental character of the work.
• The reproduction or incorporation of photographs and illustrations is more difficult to define with regard to fair use because fair use usually precludes the use of an entire work. Under these guidelines a photograph or illustration may be used in its entirety but no more than 5 images by an artist or photographer may be reproduced or otherwise incorporated as part of an educational multimedia project. When using photographs and illustrations from a published collective work, not more than 10% or 15 images, whichever is less, may be reproduced or otherwise incorporated as part of an educational multimedia project.

• Up to 10% or 2500 fields or cell entries, whichever is less, from a copyrighted database or data table may be reproduced or otherwise incorporated as part of a educational multimedia project created under Section
of these guidelines. A field entry is defined as a specific item of information, such as a name or Social Security number, in a record of a database file. A cell entry is defined as the intersection where a row and a column meet on a spreadsheet.

Students are reminded to credit the sources and display the copyright notice © and copyright ownership information if this is shown in the original source, for all works incorporated as part of the educational multimedia projects. Crediting the source must adequately identify the source of the work, giving a full bibliographic description where available (including author, title, publisher, and place and date of publication). The copyright ownership information includes the copyright notice (©, year of first publication and name of the copyright holder).

Cheating (from Catalogue):

In the collegiate setting, cheating is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in act of cheating and by discouraging others from doing so.

Plagiarism (from Catalogue):

Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work, as one's own constitutes an act of plagiarism.

Bribery (from Catalogue):

In the collegiate setting, bribery involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor, shall also be handled as per the Sexual Harassment procedures of the College.

College Attendance Policy (from Catalogue):

Students are expected to attend all class meetings in the courses for which they are registered. Classes begin at the times indicated in the official schedule of classes. Arrival in class after the scheduled starting time constitutes lateness. The maximum number of absences is limited to 3 for the semester and a student absent more

than 3 times is deemed excessively absent. Students arriving in class 10 minutes or more after the scheduled start time will be considered late. Students arriving in class 30 minutes or more after the scheduled start time will be considered absent. Also, persistent lateness throughout the semester will count as absence. Attendance is monitored from the first official day of classes. In the case of excessive absences or lateness, the instructor has the right to lower the grade, assign a failing grade, or assign additional written work or readings. Absences due to late registration, the instructor will consider change of program, or extenuating circumstances on an individual basis. Each department and program may specify in writing a different attendance policy. Instructors are required to keep an official record of student attendance and inform each class of the College's or department attendance policy.

Note:
• Any work missed during any period of absence must be made up by the student.
• To meet financial aid criteria, a student must attend class at least once in the first three weeks and once in either the fourth or fifth week of class.