

MUSIC 158A: Sound and Music Computing with CNMAT Technologies

New course

Review Date:

General Course Info

Course Number	MUSIC 158A
Department	Music
Course Title	Sound and Music Computing with CNMAT Technologies
Course Level	Undergraduate
Abbreviated Transcript Title	MUSIC AND COMPUTING
Instructor(s)	
Effective Start Term	Fall 2015

Academic Content

Description	Explores the intersection of music and computers using a combination of scientific, technological, and artistic methodologies. Musical concerns within a computational frame are addressed through the acquisition of basic programming skills for the creation and control of digital sound. Will learn core concepts and techniques of computer-based music composition using the Cycling75/MaxMSP programming environment in combination with associated software tools and programming approaches created by the Center for New Music and Audio Technologies. Included will be exposure to the essentials of digital audio signal processing, musical acoustics and psychoacoustics, sound analysis and synthesis. The course is hands-on and taught from the computer lab.
Course Objectives	
Student Learning Outcomes	

Credit

Unit(s)	4.0 unit(s)
Credit	Letter Grade
Description of Alternative Method	In lieu of a standardized final exam, students create a final project using skills and techniques presented in class. The date of the final project demonstration and the due date for the final project will be the official university final exam slot given to the course.

Requirements

University Requirements

Campus Requirements

College/School Requirements

Formats

Format	LECTURE
Term, Duration, & Hours	#1: 15 wks, f/s LEC: 3hrs WRK: 9hrs TOTAL: 12 hour(s) (OK) #2: 6 wks, su LEC: 7.5hrs WRK: 22.5hrs TOTAL: 30 hour(s) (OK)

formats, additional activities

TIE Code LECT

Prerequisites

Prerequisite Phrase	Consent of the instructor, or a single music course drawn from the following list: Music 20A/B, Music 25A, Music 29, or any single advanced musicianship or harmony course.
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Prerequisites

Restrictions

Credit Restrictions

Deficient Grade Removal

Repeat Rules	Not repeatable
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Special Topics Course	No
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Finishing Up

Files Attached	Music 158A Course Syllabus.docx
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Remarks

In an effort to meet the large and growing interest in music and technology courses, the Department of Music, Professor Edmund Campion, and the Center for New Music and Audio Technologies (CNMAT) have designed a more complete and integrated music technology curriculum. The goal is to phase in a series of new courses that will better serve both music majors and minors, as well as majors from diverse departments including TDPS and EECS. To support this initiative, Professor Campion has received a \$50,000 grant from the UC Berkeley Mellon Digital Humanities Project.

Catalog Preview:

158A. Music - Sound and Music Computing with CNMAT Technologies. (4.0) Three hours of lecture per week. *Prerequisites: Consent of the instructor, or a single music course drawn from the following list: Music 20A/B, Music 25A, Music 29, or any single advanced musicianship or harmony course.* Explores the intersection of music and computers using a combination of scientific, technological, and artistic methodologies. Musical concerns within a computational frame are addressed through the acquisition of basic programming skills for the creation and control of digital sound. Will learn core concepts and techniques of computer-based music composition using the Cycling75/MaxMSP programming environment in combination with associated software tools and programming approaches created by the Center for New Music and Audio Technologies. Included will be exposure to the essentials of digital audio signal processing, musical acoustics and psychoacoustics, sound analysis and synthesis. The course is hands-on and

Comments:

[03/11/2015 12:58PM] **Babs WINBIGLER**
Submitted this proposal

[03/10/2015 12:38PM] **Babs WINBIGLER**
Created this proposal