

Form Version: February 2002

EFFECTIVE TERM: Fall 2004

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

COURSE NUMBER AND TITLE: MUS 180 Computer Music I

UNIT VALUE: 3 MINIMUM NUMBER OF SEMESTER HOURS: 96

BASIC SKILLS REQUIREMENT:

Appropriate language skills.

ENTRANCE REQUIREMENTS:

PREREQUISITE: Music 103 or Music 115 or Art 243 or GC 204

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

This course is designed to give students an understanding of basic computer music applications including sound design, MIDI, and music notation software.

SPECIFIC COURSE OBJECTIVES:

Upon completion of this course successful students will have:

1. Identified and worked with the basic components of a computer music studio;
2. Completed lab assignments that implement a basic understanding of acoustics and sound design;
3. Programmed and edited sounds on a synthesizer and sampling keyboard;
4. Designed their own sounds on synthesizers using both oscillators and sampled sounds;
5. Recorded a MIDI sequence;
6. Composed and printed a musical score with notation software;
7. Analyzed the aesthetic value of computer music in the context of music literature.
This context includes, but is not limited to, the traditional western canon.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Overview of Computer Music
 - A. Basics of MIDI Connectivity
 - B. Basics of Digital signal processing
- II. Brief history of Electro- acoustic music
- III. Introduction to acoustics and sound design.

- IV. Hands on work with synthesizer and sampling keyboard
 - A. Selecting and editing ROM samples
 - B. Working with oscillators
 - C. Working with filters and effects processors
 - D. Integrating sound design techniques to create quality music
- V. Basic MIDI sequencing on a computer
 - A. MIDI recording techniques
 - B. Editing techniques
 - C. Mixing techniques
- VI. Use of musical notation software
 - A. Techniques for entering music
 - B. Techniques for editing music
 - C. Printing a score and parts

REQUIRED READING:

Edstrom, Brent. *Making Music With Your Computer, Second Edition*, California: EM Books, 2001.

SUGGESTED READING:

Electronic Musician, a periodical dedicated to reporting on current computer music hardware and software. This periodical also includes instructional articles in the field of computer music.

REQUIRED WRITING:

This is a laboratory course and does not require any written reports. There are frequent quizzes, four lab assignments, three semester projects and a final exam.

The lab assignments are:

1. Edit sampled sounds. In this assignment, students are expected to demonstrate facility with velocity tracking, setting ranges on the keyboard, layering, and working with amplitude envelopes.
2. Create a sound with vibrato, create a sound with tremolo, and demonstrate a thorough understanding of filters.
3. Record a sixteen measure MIDI sequence using step entry, tempo and meter maps, and demonstrate editing techniques.
4. Record a sixteen measure sequence containing a drum track, using quantization, and MIDI controllers to create panning and crossfades.

The semester projects are:

1. A palette of four originally designed sounds that incorporate the techniques acquired in lab assignments one and two.
2. A three minute composition utilizing the four originally designed sounds from project one, as well as sounds from the sampler and synthesizer. This composition will be assembled in the sequencer and will be expected to include many of the techniques acquired in the lab assignments three and four.
3. A thirty-two measure score, consisting of at least three parts, created and printed with the musical notation software.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short term classes.

Work on above mentioned projects.

INSTRUCTIONAL METHODOLOGY

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive video)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY:

Attendance, class participation -----10%
 Lab Assignments -----30%
 Projects -----45%
 Final Exam-----15%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes: No: Number of times course may be taken for credit: 1.

If yes, identify specific provision of Division 2 section(s) 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Madelyn Byrne, ext. 2316

Signatures On File: