San Bernardino Valley College
Curriculum Approved: September 16, 2003
Last Updated: September 2003

I. COURSE DESCRIPTION:

Department Information:

Division:	Humanities
Department:	Speech and Performing Arts
Course ID:	MUS 123
Course Title:	Beginning MIDI Workstation
Units:	3
Lecture:	2 Hours
Laboratory:	3 Hours
Prerequisite:	None

Catalog Description:
An introduction to MIDI and its applications, the use of computers, MIDI interface, synthesizers, drum machine, and tape recorder in developing musical projects. This course will emphasize competency develops with music sequencing and the use of graphics software

Schedule Description:
An introduction to MIDI and its applications, the use of computers, MIDI interface, synthesizers, drum machines, and tape recorders in the development of musical projects.

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One

III. EXPECTED OUTCOMES FOR STUDENTS:

Upon completion of the course, the student will be able to:

A. Access programs and files from the hard drive or a floppy disk
B. Open and close windows in Performer and other programs
C. Open and name a new file in Performer and other programs
D. Save new files and sequences to a floppy disk
E. Demonstrate the ability to turn set and manipulate the “click on or off” options
F. Demonstrate three ways to select data for editing
G. Cut, copy, paste, erase, repeat, and shift track data
H. Transpose, quantize, and humanize tracks
I. Change velocity, duration and placement of an event or region
J. Set or change tempo, meter, key center and track MIDI channel
K. Create continuous data
L. Insert controller data and patch changes
M. Real time record or step record
N. Save a standard MIDI file and convert it to another program
O. Assign instruments, MIDI channels and modes in synthesizers
P. Demonstrate effective use of the drum machines
Q. Set up a MIDI Workstation

IV. COURSE CONTENT:

A. Introduction to MIDI
   1. MIDI in the home
   2. MIDI in the studio
   3. MIDI in audio-for-video and film
   4. MIDI in live performance
   5. MIDI in multimedia
B. MIDI 1.0
   1. Exploring the specification
   2. The digital word
   3. The MIDI message

C. The hardware
   1. System interconnection
   2. MIDI and the personal computer
   3. MIDI interface
   4. MIDI distribution and processing

D. Electronic musical instruments
   1. Keyboards
   2. Percussion
   3. Guitars
   4. Wind controllers

E. Sequencing
   1. Hardware sequences
   2. Integrated workstate sequences
   3. Software sequencers
   4. Basic introduction to sequencing
   5. Other sequencer types

F. Editor/Librarians
   1. The patch editor
   2. The patch librarian
   3. Alternative sources for obtaining patch data

G. Music printing programs
   1. Entering music data
   2. Editing a score
   3. Playing back a score
   4. Printing a score

H. Digital audio in MIDI production
   1. Samplers
   2. Hard disk recording
   3. Digital signal processing
   4. Hard disk editing systems
   5. Digital recording systems
   6. Digital transmission
   7. CD recorders

I. Multimedia
   1. The multimedia environment
   2. Hardware
   3. The media
   4. Multimedia and the web

J. Synchronization
   1. Synchronization between analog transports
   2. Synchronization in electronic music production
   3. Digital audio synchronization

K. MIDI-based mixing and automation
   1. Analog mixers
   2. Mixing via MIDI
   3. Signal processors in MIDI production

V. METHODS OF INSTRUCTION:

A. Lectures
B. Group discussion
C. Instructor demonstrations of computer and MIDI skills

D. Handouts and other media to illustrate MIDI data routing and sound mixing techniques
E. Critical evaluation of audio and video samples

VI. TYPICAL ASSIGNMENTS:

A. Reading: Read the section on MIDI distribution and processing. In your group, discuss the function of each of the following: merging, patching, filtering, mapping, and processing MIDI data.

B. Demonstration: After receiving a sample of music from the instructor, modify the music by adding or removing different instrumental sounds.

C. Writing and Critical Thinking: Attend a concert of your choosing. Analyze the use of electronic music in the performance. Be sure to explain the elements by using course concepts and terminology.

VII. EVALUATION(S):

A. Methods of Evaluation: In general, students are evaluated on their ability to apply course concepts to their musical compositions and in their writing. Objective and subjective examinations are used to assess students' understanding of course material. Sample test questions include:
   1. Compare and contrast electronic music with traditional music.
   2. Define and explain the following terms:
      a) S/PDIF
      b) SCMS
      c) Signal distribution

B. Frequency of Evaluation:
   1. One midterm examination
   2. One final examination
   3. At least three electronic musical compositions

VIII. TYPICAL TEXT(S):

A. Walker, Dan. How MIDI works (6th edition), Hal Leonard Publishers, 2001.
B. White, Paul. Basic MIDI. Sanctuary Press, 2000.
C. Huber, David Miles. The MIDI manual (2nd edition). Focal Press, 1998.

IX. OTHER SUPPLIES REQUIRED OF STUDENTS: None.