"The mind is a fire to be kindled, not a vessel to be filled."
— Plutarch

MUS_TECH 434-0:
Computers, Technology, & the Music Experience

Northwestern University—Summer, 2004
Mon, Tues, Wed, Thurs, & Fri from noon to 1:50 p.m.
University Library, B182 (except as noted in class)
Dr. Scott D. Lipscomb, Associate Professor
Office Hours: by appointment
or via email & Blackboard at anytime
Office: MAB 119
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COURSE SYLLABUS

Course description: An introduction to computers and the music experience in the context of the music classroom. Topics will include computer-aided instruction, music printing, digital audio, MIDI sequencing, and software development, as well as some non-music topics. This course offers the professional musician resources that can increase the mastery of basic musicianship, facilitate the routines associated with the creative and/or educational process, serve as inspiration, and save valuable time in the execution of both musical and non-musical tasks.

Incoming competency of students expected by instructor: The course is designed as an introduction to technology for the music educator. There are no assumptions and/or prerequisites regarding the level of student technical understanding and background. The goal of the course is to assist you in becoming proficient in several areas involved with music and computers.

<u>Statement of Course Objectives</u>:
This course will provide students an opportunity to become familiar with:
- ✓ basic categories of music software and their role in music teaching, learning, composition, and performance
- ✓ components of a computer system and how they relate to one another
- ✓ the history of music and technology, especially computer-aided instruction (CAI)
- ✓ specific software for music theory, music composition, sequencing, digital sound editing, basic multimedia development, and creative thinking
- ✓ the performance characteristics of MIDI synthesizers & digital samplers and their integration with software applications
- ✓ the MIDI protocol
- ✓ integration of technology into the traditional curriculum and the use of technology to extend the philosophy/curriculum of music programs
- ✓ managing files with the computer's operating system
- ✓ word processing, spell checking, and printing
- ✓ graphic software for creating illustrations, scanning images, & modifying them appropriately for dissemination via print or the Internet
- ✓ networking and communication programs, including basic web design

Upon completion of this course, it is my hope that each student will have developed the fundamental abilities necessary to be a *self-sufficient learner of new technology* … something that will serve you well for many years to come!!

Required texts:

NONE: We will be using an electronic copy of the "in print" 3rd edition of Williams & Webster's *Experiencing Music Technology: Software, Data, and Hardware*, thanks to the generosity of Dr. Webster. This text is protected by copyright law, so **do not** under any circumstances disseminate this information to others. Please use this resource *only* in association with assignments for this class and buy a copy of the text when it is released this fall.

Additional Materials & Requirements:

✓ It is strongly recommended that students purchase a 128 MB (or larger) USB flash drive that will be available at all times;[1]

  ➢ **very important**: always copy files from the lab computer onto this disk at the conclusion of each work session, since network and computers do crash … though, thankfully, not often!

✓ Some course materials will be made available via Blackboard course management software. Simply point your web browser to http://courses.northwestern.edu, then login using your NUnet username & password.

✓ Each student will store copies of files on the Depot server. Instructions for using Depot will be provided in class. The URL for the resource is located at: http://depot.northwestern.edu/.

Schedule of Assignments (subject to change):[2]

PR = project assignment; **WW** = Williams & Webster text

WEEK ONE

July 12th

  Syllabus & Course Requirements

July 13th

  WW: Preface & Viewport I

July 14th

  PR: Tracking down campus technology resources
  PR: Creating a mail merge newsletter

July 15th

  WW: Viewport II

July 16th

  PR: Surfing & searching the Web for Music Resources
  PR: Creating a web page

WEEK TWO

July 19th

  WW: Viewport III

July 20th

  PR: Using MP3 Jukebox Software
  PR: Basic Digital Audio Editors

July 21st

  WW: Viewport IV

July 22nd

  PR: Creating a loop-based composition
  PR: Burning a CD

July 23rd

  WW: Viewport V

WEEK THREE

July26th

  PR: Using a MIDI sequencer
  WW: Viewport VII (skip VI)

July 27th

  PR: Beginning Note Entry

July 28th

  PR: More Notation Skills
  WW: Viewports VIII & IX

July 29th

  PR: Evaluating two CAI music programs

July 30th

  Final Presentations
  [*electronic copy must be sent to Dr. Lipscomb to complete requirement*]

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[1] Some students may prefer to purchase a multi-pack of CD-R discs instead. Though this should work fine, students in past classes have experienced significant difficulty in transporting files this way. As a result, a flash drive is *highly* recommended instead.

[2] Any changes to the schedule will be announced to all students via email.

Assessment:

Student performance in this class will be evaluated in three areas: short assignments, a midterm project, and a final project. Successful completion of these components – and, hence, the course – will require 5-10 hours of lab time per week *in addition to class attendance*.

> ➤ Assignments: 40%
> ➤ Midterm Project: 20%
> ➤ Final Project: 40%

Assignments: Instructions describing every assignment are readily available on the CD-ROM that accompanies the required text (to be provided by Dr. L this quarter). Each of these will involve completion of a small task related to a topic being covered in class. You are welcome – encouraged even – to work on these assignments in pairs rather than working independently. I encourage you to take advantage of this opportunity, since a great deal of learning takes place in such peer-to-peer interactions. All assignments are due at the beginning of class on the day they are due, as stated in the Schedule of Assignments contained in this document. Assignments submitted on time and complete have the potential to earn 100%. Any completed assignment submitted after the due deadline can earn only 75%. Under no circumstances will an assignment be accepted if it is more than two class periods beyond the due date. Incomplete assignments will earn a score *half* of the amount completed. For example, if approximately 50% of an assignment were completed when submitted for grading, a grade of "25" would be earned.

Midterm Project: In pairs, students will provide an in-class evaluation & critique of a commercially available music software package. Detailed instructions will be provided on Blackboard.

Final Project: The final project can take one of three forms:[3]
> ➤ a large composition using a number of digital resources, including a printed score and an audio compact disc; Music Education students will be advised to compose something for a potential public school ensemble
> ➤ an educational multimedia resource that incorporates CD audio, digitized sound, MIDI resources, DVD, or some combination of several of these
> ➤ a web site that includes multiple hyperlinked pages, tables, MIDI sound, digital sound, images, and links to external web pages of interest to potential users

Because the projects form such a substantial portion of the grade and will provide a tangible product resulting from your efforts, it will be important to elaborate further. Each of your projects – and a number of the assignments – should be related to a "Theme" you will pick early in the quarter and upon which you expand as you progress in your general knowledge and technological skill level. Your final project should be the largest expansion – a culmination – of this Theme. Each student's Final Project will be presented (or demonstrated) to the entire class during the final class period and will be *in lieu of* a Final Exam. [Topics for both the Midterm & Final Projects must be approved by Dr. Lipscomb.]

<div align="center">

Pagers & cell phones are disruptive to this class.
ALWAYS turn them off when entering the classroom.

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Music Education Students
Music Content-Area Standards met: 1C,1F, 2A (partial), 3F (3A-E and G-H possible depending on project & theme), 3N, 4A, 4B, 5M, 5N, 5CC, and 5DD

Illinois Professional Teaching Standards: 1I, 3K, 4E, 4F, 4G, 4H, 4R, 5K (partial), 6C, 6K, 6N, 8M, and 8P

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[3] Music Education Masters students are strongly encouraged to consider this a prime opportunity to create a technology-based project that fulfills one of the three required "domain projects."