

Syllabus: MU 1105—Introduction to Music Technology

Butler Music Center room 208 (Music Technology Lab)

INSTRUCTOR: Dr. David B. Wetzel (*Instructor of Record for this course. Only the Instructor of Record may issue a grade*)
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Course Web Site: <http://mansfield.desire2learn.com>
Credits: 2
Prerequisites: none

COURSE DESCRIPTION

An introduction to music technology software and hardware, focused on basic acoustics, digital audio, MIDI, and MIDI sequencing and notation software. Lab activities will place an emphasis on the operation and components of the typical MIDI and digital audio lab (hardware and software). Students will complete independent projects in areas such as digital audio, music notation, and MIDI sequencing.

STUDENT LEARNING OUTCOMES (SLO)

MU 1105 is a requirement of the B. Mus. in performance, the B. Mus. with emphasis in music technology and the B. Mus. with elective studies in business. As such, the student learning outcomes for this course align with specific SLOs for the program:

References to Student Learning Outcomes for the BM with an Emphasis in Music Technology Program:

- Students will demonstrate experience and expertise in music technology hardware and software for recording, editing, mixing, applying audio effects, MIDI sequencing, and notation.
- Students will demonstrate broad knowledge of the music industry.

References to Student Learning Outcomes for the BM with Elective Studies in Business Program:

- Students will demonstrate broad knowledge of the music industry.

Course-level SLOs

The following SLOs for this course support progress toward all of the program-level SLOs outlined above. Upon successful completion of this course, students will be able to:

1. Discuss and evaluate the place of music technology in the music industry
2. Identify and discuss the fundamental concepts of acoustics and digital audio
3. Identify and explain the basic elements of MIDI
4. Use basic recording and sound reinforcement equipment for musical projects
5. Use music software for digital audio, synthesis, sequencing, and music notation

COURSE REQUIREMENTS

Textbook and materials

Required Materials:

- **Textbook:** Hosken, Daniel. *An Introduction to Music Technology*. New York: Routledge, 2011 (available in the book store)

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- **Backup media:** USB flash drive (recommended 2GB or higher) or other portable USB media for storing/transporting/backing up project files. Get two. They're cheap.
- **Headphones:** good quality headphones or earbuds with to 1/4" adapter for plugging in to the MBox 2 audio interface. *Bring them to every class period*
- **Internet Access:** assignment instructions, announcements, supplemental readings, exams, and dropboxes will be found online in D2L. You must have reliable Internet access and log in to D2L on a regular basis in order to fully participate in this course.

Additional reading assignments will be drawn from many sources, including the required textbook, technical manuals, and Internet resources. Supplemental reading assignments will be available through online reserve and in printed form (either as a class handout or as found in the studio user manuals). Short writing assignments will take the form of commentary on individual student projects for inclusion in a final portfolio.

Students are responsible for backing up and maintaining copies of their work. There is no guarantee that project files will be stored on the lab computers. Therefore, it is recommended that students purchase backup media (CD-RW or USB drives) to save their work. Each student is enrolled in the course web site on Desire2Learn and will be required to log in regularly to access assignment instructions and reading materials, submit homework, and complete exams. Reliable Internet access outside of regular class meeting times is therefore required.

Facilities

The Music Production Lab currently houses seventeen computer music workstations each including an Apple iMac computer (Intel Core Duo processors), Digidesign MBox 2 audio/MIDI interfaces, and a Korg X5D MIDI keyboard/synthesizer. Software for music synthesis, production, and programming includes Pro Tools LE, Digital Performer, Peak Pro, Reason, Ableton Live, Max/MSP/Jitter, Sibelius, and Finale. The iMacs are capable of "dual-booting," so Windows XP software is available on each workstation as well.

Time Commitment

Students will be expected to spend time each week preparing for class and completing assignments. Studio time will be available for project work. Reading assignments must be completed before class. Students are expected to complete lab exercises, including individual and group tasks, during scheduled class periods if at all possible. Creative projects may require significant time in the lab outside of class.

Attendance

It is imperative that all students come to class. Absences will be considered in the grading process. To be excused from class, a student must satisfy the requirements for an excused absence as outlined in current university policy, or must obtain special approval from the instructor. Students who miss class for any reason will be responsible for obtaining information covered in missed lectures and for completing any make-up work on their own time.

Exceptionalities

Any students with documented psychological or learning disorders or other significant medical conditions that may affect their learning should work through Mr. William Chabala in our Counseling Center (662-4798; wchabala@mnsfld.edu) to provide me with the appropriate letter so that I may serve their particular needs more effectively. If you have an exceptionality that requires class or testing accommodations, Mr. Chabala will work with us to identify and implement appropriate interventions.

ASSIGNMENTS AND GRADING

Homework will take the form of simple exercises using various software programs (ProTools, Audacity, etc.). Exams will cover material from readings, lectures, and class activities. These will be given online in D2L. Creative projects will require independent work and will be presented to the entire class. Examples from your creative projects and homework will form the basis of a final portfolio to be submitted at the end of the course. Participation in class activities and regular attendance are absolutely

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required. Assignments will fall into one of the following categories, each with its own weight as a percentage of the final grade. Note also that each assignment category is intended to support the Student Learning Outcomes given for this course.

Assessment	Course SLO alignment	Grade weight
Homework	SLO 1, 2, 3, 4, 5	30%
Creative Projects	SLO 4, 5	30%
Final Portfolio	SLO 4, 5	10%
Participation/Attendance	SLO 1, 2, 3, 4, 5	10%
Exams	SLO 1, 2, 3	20%

Grading is always somewhat subjective. Clear assignment instructions and grading rubrics will be posted on Desire2Learn so that you have a clear understanding of the expectations. However, simply following the instructions will not always guarantee top marks. Projects and exam essays will be evaluated according to the following general guidelines:

Letter	%	GP	Criteria
A	95 – 100%	4.0	Exceptional. Goes beyond merely fulfilling the assignment to stand on its own as quality work. Good use of sources and available materials (properly cited when appropriate).
A-	90 – 95%	3.7	
B+	87 – 90%	3.3	Good. Fulfills the assignment instructions. Demonstrates competence and a basic understanding of the material. Work that is fundamentally on the right track but needs more polish or editing in order to be exceptional.
B	84 – 87%	3.0	
B-	80 – 84%	2.7	
C+	77 – 80%	2.3	Fair. Demonstrates a less-than-firm grasp of the material or minimal effort. Some missing elements or multiple technical, grammatical, or spelling errors. Minimal use of sources or inappropriate citations.
C	74 – 77%	2.0	
C-	70 – 74%	1.7	
D+	67 – 70%	1.3	Poor. Demonstrates a serious lack of effort or understanding of the materials. Multiple errors, missing elements, or failure to follow assignment instructions.
D	64 – 67%	1.0	
D-	60 – 64%	0.7	
F	< 60%	0.0	Failing. Missing, incomplete, plagiarized, clueless or incoherent.

The starting point for determining final grades is based on scores given for all course assignments. Assignments are weighted accordingly:

Professionalism counts—conduct towards others and apparent studio/academic ethics will be a factor in determining grades. Lack of attendance will negatively affect final grades, regardless of the quality of the work turned in. Acts of academic dishonesty (cheating, plagiarism, etc.) will likewise have severe consequences for final grades and may incur additional sanctions under university policies.

Once a base grade is determined, considering all completed work, the final grade may be adjusted at the instructor’s discretion in consideration of certain factors listed below:

Circumstances	Consequences
Outstanding/Poor class participation:	+/- 1-half letter grade
Attendance - Reduction in letter grade	2 unexcused absences - 1 letter
for unexcused absences:	3 unexcused absences - 2 letters
	4+ unexcused absences Fail the course
Acts of academic dishonesty or grossly unprofessional conduct:	Determined according to the instructor’s discretion and/or university policies regarding student conduct

TOPICAL OUTLINE

The only constant is change. The lab is continuously updated to keep up with recent changes in the field. This course is relatively new as are many of the tools we will use this semester. The following is an initial best estimate of how things will go. This schedule is subject to change at the instructor's discretion as necessary.

Week 1 - Getting started

- Course overview, tour of facilities
- Recording in Steadman

Week 2 - Sound

- Basic sound reinforcement in Steadman
- Properties of sound

Week 3 - Audio Hardware

- Microphones & mixers
- Audio interfaces

Week 4 – Digital Audio

- Sampling & quantizing
- Digital audio file formats

Week – Digital Audio Software

- Pro Tools
- DAW editing & mixing

Week 6- Audio systems review

- Creative projects
- Midterm exam

SPRING BREAK

Week 7 – MIDI Hardware

- Keyboards, cables, interface
- Controllers

Week 8 – MIDI Messages

- MIDI message structure
- General MIDI sound sets

Week 9 – MIDI Sequencing

- Sequencer basics: importing & viewing data
- Entering and editing MIDI data

Week 10 - MIDI projects

- Creative MIDI projects

Week 11 – Synthesis

- Basic synthesis models
- Synthesis techniques

Week 12 – Sampling

- Keymapping & multisampling

Week 13 – Computer-based notation

- Notation files
- Creating a lead sheet

Week 14 – Exporting and presenting materials

- Creating an online portfolio
- Project presentations