



## **DEPARTMENT OF FINE ARTS**

### **COURSE OUTLINE – FALL 2019**

#### **MU1081 (A2): An Introduction to Music Technology – 3 (2-0-1) 45 Hours for 15 Weeks**

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<b>OFFICE HOURS:</b>	By appointment		

#### **CALENDAR DESCRIPTION:**

This course will be an introduction to current concepts, techniques and tools in use for the creation, recording and production of music with technology. Through both lectures and labs, students will gain theoretical and practical knowledge of acoustics, digital audio theory, psychoacoustics, microphones and recording, computer based recording techniques and software, an introduction to MIDI and virtual instruments, sound synthesis, digital signal processing and associated hardware.

#### **PREREQUISITE(S)/COREQUISITE:**

Music Theory Placement Exam (pass), or MU1000, or Royal Conservatory Level 8 Theory, Conservatory Canada Gr.4.

#### **REQUIRED TEXT/RESOURCE MATERIALS:**

Text: Modern Recording Techniques 9<sup>th</sup> edition. Miles David Huber

Students will need stereo headphones with ¼” phono plug adapters. It is recommended that students purchase their own external hard drives for saving projects. Multi-track audio projects can use large amounts of hard drive space, and students then need not worry about projects being accidentally erased.

#### **DELIVERY MODE(S):**

Lecture and lab

#### **COURSE OBJECTIVES:**

Upon completion of this course, students will have completed readings and lectures that discuss the science of sound and hearing, and how computers store and playback audio. They will know how to use microphones, mixers and basic recording techniques for musical instruments. Students will have a basic understanding of using Digital Audio Workstation software, such as: ProTools and Reaper. They will have the introduction to MIDI and virtual instruments, and DSP in DAW software.

## **LEARNING OUTCOMES:**

Students will be able to articulate introductory level theoretical and technical aspects of sound. They will be able to record audio for different purposes, utilizing Digital Audio Workstation software, mixing with DSP plug-ins and making music with virtual MIDI instruments.

## **TRANSFERABILITY:**

Please consult the Alberta Transfer Guide for specific course transfer information. You may check to ensure the transferability of this course at Alberta Transfer Guide's main page <http://www.transferralberta.ca> or use the direct course search at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**Students have the final responsibility for ensuring the transferability of courses taken at Alberta Colleges and Universities.**

## **EVALUATIONS:**

Students will complete four assigned projects and an in class exam. The projects are listed below:

- a) A project plugging in, placing and recording an instrument with three different types of microphones. (15%)
- b) A multi-track recording mixing multiple sources together and then mixed down to a stereo master. (20%)
- c) Written exam based on topics and practical concepts covered in class. (15%)
- d) A 2-3 min. in duration project requiring MIDI tracks and self-recorded audio tracks bounced down to a stereo audio file. (20%)
- e) A Final Project 3-4 min. in duration project requiring MIDI sequencing and digital recording of real-time audio, the use of digital signal processing and EQ on the sounds. This must be mixed, bounced down and exported as an audio file. (30%)

There may be in class quizzes, as needed. Students will be expected to help setup and record student recitals, and the choir and band concerts at the end of term.

Further details regarding the project requirements and expectations will be given in class.

## **GRADING CRITERIA:**

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

### **COURSE SCHEDULE/TENTATIVE TIMELINE:**

Project A: September 25

Project B: October 23

Project C: November 13

Project D: December 4

#### Topics:

September 4<sup>th</sup> - Introduction to the studio facilities and recording/Audio Basics

September 11<sup>th</sup> - Audio Basics/Ear and Hearing

September 18<sup>th</sup> - Microphones

September 25<sup>th</sup> - Microphone techniques

October 2<sup>nd</sup> - Mixing Boards, EQ and connectors

October 9<sup>th</sup> - DAW Software

October 16<sup>th</sup> - DAW software/Editing

October 23<sup>rd</sup> - DAW software/MIDI

October 30<sup>th</sup> - Virtual Instruments

November 6<sup>th</sup> - Digital Signal Processing

November 13<sup>th</sup> - Mixing

November 20<sup>th</sup> - Audio file formats and delivery formats

November 27<sup>th</sup> - Careers in Audio

December 4<sup>th</sup> - Final work

**STUDENT RESPONSIBILITIES:**

Some class time will be given for course work (projects) but it is up to the student to complete projects in the lab outside of class time.

**STATEMENT ON PLAGIARISM AND CHEATING:**

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

**\*\*Note:** all Academic and Administrative policies are available on the same page.