# Bergen Community College Division of Business, Arts & Social Sciences Department of Performing Arts

# Course Syllabus

# Studio Recording Techniques MUS 251

Semester and year:	
Course Number:	
Meeting Times and Locations:	
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Instructor:	
Office Location:	
Phone: 201-447-7143	
Departmental Secretary: Ms. Barbara Bliss	
Office Hours:	
Email Address:	

# **Course Description:**

Studio Recording Techniques introduces students to the concepts of recording live instruments and vocals in a state of the art digital recording studio. Students will learn techniques for recording orchestral instruments as well as instruments used in popular music. Topics covered include studio signal flow, microphone selection and placement, use of outboard and software-based effects processors, overdubbing, creating composite audio tracks, and mixing. Students are expected to spend additional time in the studio and/or music technology lab working on assigned projects.

2 lecture hours, 2 lab hours, 3 credits

Prerequisite: MUS 151 Introduction to Digital Audio Recording

#### **Student Learning Objectives:**

As a result of meeting the requirements of this course, students will be able to

- 1) Effectively plan, set-up, engineer, and break down studio recording sessions
- 2) Select appropriate microphones, direct boxes, and pre-amps for recording a variety of instruments and vocals
- 3) Place microphones for optimal recording of acoustic and amplified instruments and vocals with minimal leakage and phase cancellation
- 4) Apply a mastery of signal flow to record with minimal noise and distortion, to apply global effects and to employ keying techniques such as ducking
- 5) Edit and mix music recordings to produce professionally seamless productions
- 6) Make effective use of outboard and software-based audio signal processors including equalizers, delays, compressors, reverbs and noise gates to bring productions to full sonic potential.
- 7) Critically listen to mixed and unmixed music to develop an understanding of arranging and production aesthetics and to be able to address sonic problems in recordings and mixes

#### **Assessment:**

In support of the above-mentioned goals, the course will include individual and group project work, reading assignments, and a mid-term and final exam. Students are strongly encouraged to take an active part in class discussions.

Objectives will be assessed as follows:

- 1. Students will work on both individual and group projects requiring them to properly record and mix multi-track music productions in the recording studio and music production lab.
- 2. A mid-term and final exam will be used to measure the students' understanding of any audio or recording theory that cannot specifically be measured by their recording projects.
- 3. Students will be required to critique the work of other students to help develop critical listening skills and the ability to communicate music production concepts.

#### **Course Content**

**Studio Recording Techniques** introduces students to the concepts of recording live instruments and vocals in a state of the art digital recording studio. Students will learn techniques for recording orchestral instruments as well as instruments used in popular music. Topics covered include studio signal flow, microphone selection and placement, use of outboard and software-based effects processors, overdubbing, creating composite audio tracks, and mixing. Students are expected to spend additional time in the studio and/or music technology lab working on assigned projects.

### **Special Features of the Course**

Technological literacy is one expectation of this course. Students will be encouraged to use such technology as microphones, mixing consoles, non-linear recording software and control surfaces, signal processors, preamps, and studio monitors.

### **Course Texts and/or Other Study Materials**

**Required**: Ditmarr, Tim. *Audio Engineering 101: A Beginner's Guide to Music Production* 1st edition. Taylor & Francis Publishing. 2011. ISBN# 0240819152

# **Grading Policy**

The final grade in this course will be determined by a student's overall mastery of the subject matter as evidenced on exams, quizzes, written assignments, consistent attendance and quality class participation. There will be one mid-term exam, one final exam, 3 studio/lab projects, and weekly assignments.

Attendance, preparation and active participation	10%
Project I: mix of pre-recorded music	15%
Project II: mix of class recording	15%
Project III: studio recording and mix	20%
Mid-term exam:	20%
Final exam:	20%

#### **Criteria for Evaluation:** *Attendance and participation*

- a. consistent attendance and promptness
- b. quality classroom responses
- c. overall contribution to in-class discussion and demonstrations

$$90-100 = A$$
  $86-89 = B+$   $80-85 = B$   $76-79 = C+$   $70-75 = C$   $65-69 = D$  E = Unofficial Withdrawal W = Official Withdrawal INC=Incomplete  $0-64 = F$ 

Any work turned in late from the original due date shall be deducted by one letter grade. Two letter grades shall be deducted after the second week from the due date, and three letter grades after the third week from the original due date. There are no make-up examinations unless approved in advance by the instructor.

#### **Attendance Policy**

All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

Students will be evaluated on attendance and participation in class using the following criteria: consistent attendance; evidence of studying text and assignments; completed daily assignments; quality classroom responses.

### **Bergen Community College Academic Policies**

Bergen Community College is committed to academic integrity – the honest, fair and continuing pursuit of knowledge, free from fraud or deception. Please review the college catalogue or student handbook for further information on this topic.

Bergen Community College has adopted an internal grievance procedure to provide for prompt and equitable resolution of complaints alleging any action prohibited by federal regulation implementing Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990. (ADA). Please review the college catalogue for further information on this topic.

Bergen Community College is committed to providing its students and employees with an academic and work environment free from sexual harassment or discrimination. Please review the policy prohibiting sexual harassment in the college catalog.

Please review the statement on acceptable use of BCC technology in the college catalog.

Faculty hold 3 office hours per week, and as requested by students, by appointment. Students are encouraged to seek out their faculty member for academic needs.

### **Student and Faculty Support Services**

All students are encouraged to visit and use the BCC Library. There are particularly excellent electronic references in the area of music available to our students.

Students are encouraged to use the student support services of the college. These services include: the Writing Center, the Tutorial Center, and the Office of Specialized Services.

The Distance Learning Office – for any problems you may have accessing your online courses C-334 201-612-5581

psimms@bergen.edu

Smarthinking Tutorial Service On Line at:

www.bergen.edu/library/learning/tutor/smart/index.asp

The Tutoring Center Room L-125 201-447-7908 The Writing Center Room L-125 201-447-7908

The Online Writing Lab (OWL) On Line at: www.bergen.edu/owl

The Office of Specialized Services (for Students with Disabilities) Room S-131 201-612-5270

The Sidney Silverman Library – Reference Desk Room L-226 201-447-7436

#### **Course Outline:**

**Note to Students:** This Course Outline and Calendar is tentative and subject to change, depending upon the progress of the class

### Part I -recording techniques

Week	Topic	Objective(s) met
1	Course Introdution Recording session pre-production Dealing with latency issues Signal flow of the recording studio	1
2	Mini-recording session: single instrument Punch-ins	1, 4
3	Recording drums using the 4-mic method	1, 2, 3
4	Recording electric and electronic instruments	1, 2, 3
5	Recording acoustic instruments	1, 2, 3
6	Critiquing of project #1: mix of pre-recorded track	5, 7
7	Review	1-4
8	mid-term exam	1-4
9	Recording vocal composite tracks Using outboard compression	1-4, 6

# Part II –mixing techniques

10	Editing recordings for the mix Fades, composite tracks, multiple takes	5
11	Critiquing of project #2: mix of song recorded in class	7
10	Mixing with EQ and compression Fixed-threshold compressors Ducking with compressors	6
11	Using delays: phase cancellation, doubling delays, echo delays	6
12	Mix automation	5
13	Critiquing of final project rough mixes	5, 7
14	review	1-7
15	FINAL EXAM	1-7