SAN DIEGO COMMUNITY COLLEGE DISTRICT
MIRAMAR COLLEGE
ASSOCIATE DEGREE COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER: Audio Production & Engineering 207

COURSE TITLE: **Units:**
Live Sound Reinforcement   3
                                                                  Letter Grade or Pass/No Pass Option

CATALOG COURSE DESCRIPTION:

> This course focuses on the technology, techniques, and skills necessary for achieving quality live sound production. Students learn to connect audio equipment into a combined and integrated system. This course is intended for students....

REQUISITES:

> **Prerequisite:**
> MUSI 190 with a grade of "C" or better, or equivalent

FIELD TRIP REQUIREMENTS:
May be required

TRANSFER APPLICABILITY:
Associate Degree Credit & transfer to CSU

CID:

TOTAL LECTURE HOURS:
24 - 27

TOTAL LAB HOURS:
72 - 81

TOTAL CONTACT HOURS:
96 - 108

OUTSIDE-OF-CLASS HOURS:
48 - 54

TOTAL STUDENT LEARNING HOURS:
144 - 162

STUDENT LEARNING OBJECTIVES:
Upon successful completion of the course the student will be able to:

> 1. Define, explain, and operate various live audio reinforcement technology.
> 2. Select and connect live sound equipment appropriate to the task and environment.

3. Create a strategy of sound reinforcement based on the characteristics of the venue.
4. Diagnose, troubleshoot, and fix audio system problems and irregularities.

<u>**SECTION II**</u>

1. COURSE OUTLINE AND SCOPE:

  A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

    I. Live sound reinforcement technologies and tools
       A. Mixers
       B. Signal processors
       C. Microphones
       D. Monitors
       E. Loud speakers
       F. Remedy tools
    II. Planning and connection of equipment into an integrated system
       A. Input/output routing and cabling plane
       B. Equipment connections
       C. Signal paths and level settings testing
   III. Theory, best practices, and goals of sound reinforcement
       A. Sound theory
       B. Acoustics
       C. Goals of quality sound reinforcement
       D. Common issues needed to be addressed or solved
       E. Techniques to optimally apply signal processors

Live Sound Reinforcement technologies and tools.

    Mixers,
    Signal Processors
    Microphones
    Monitors
    Loud Speakers
    Remedy tools
    Others technology and tools as the instructor would like to include.

Planning and then connection of all equipment into a combined overall integrated system.

    Input/output routing and cabling plane
    Connecting all equipment as needed
    Testing of the signal paths and level settings for the combined integrated sound system

Theory, best practices, and goals of sound reinforcement.

    Sound theory
    Acoustics
    Goals of quality sound reinforcement
    Common issues needed to be addressed or solved
    Techniques and suggestions of how to optimally apply signal processors

    And other topics that the instructor would like to include.

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Appropriate textbooks.
II. Magazine articles.
III. Websites.
IV. Equipment manuals.
V. Equipment specifications.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Short answer quizzes.
II. Essays.
III. Written summaries.
IV. Specific data searches.
V. System design plans.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Reading and writing assignments.
II. Field trips or field assignments to live sound reinforcement installations at various facilities on and off campus.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:
Application of technology

I. Designing, setting up, testing, troubleshooting, and operating audio systems.
II. Creating a strategy of sound reinforcement based on the characteristics of the venue.
III. Diagnose, troubleshoot, and fix audio system problems and irregularities.

2. METHODS OF EVALUATION:

A student's grade will be based on multiple measures of performance unless the course requires no grade.
Multiple measures may include, but are not limited to, the following:

I. Successful planning, implementation, testing, troubleshooting, and operation of a live sound reinforcement system.
II. Objective examinations.
III. Writing assignments.
IV. Applied laboratory assignments.
V. Passing with a 70% or better: Quizzes and exams testing the student's knowledge and memory of: equipment uses, best practices, testing, and troubleshooting.
VI. Successful completion of lab assignments.

3. METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Discussion Seminar
* Distance Education (Hybrid only)
* Distance Education (Partially online)
* Learning Modules
* Lecture Discussion

* Lecture-Lab Combination

4. REQUIRED TEXTS AND SUPPLIES:
Textbooks may include, but are not limited to:

TEXTBOOKS:
1. Bill Gibson. <u>The Ultimate Live Sound Operator's Handbook,</u> 3rd ed. Rowman and Littlefield, 2020, ISBN: 9781538133170
2. Teddy Boyce. <u>Introduction to Live Sound Reinforcement: The Science, the Art, and the Practice ,</u> 2nd ed. FriesenPress, 2020, ISBN: 9781525565090

MANUALS:

PERIODICALS:

SOFTWARE:

SUPPLIES:

PROPOSAL ORIGINATOR: <u>Channing Booth</u>
CO-CONTRIBUTOR(S) <u>Duane Short</u>
PROPOSAL DATE: <u>09/15/2020</u>

SAN DIEGO COMMUNITY COLLEGE DISTRICT
COURSE PROPOSAL IMPACT REPORT

COURSE TO BE PROPOSED: AUDI 207 Live Sound Reinforcement

ACTIVE/APPROVED COURSES IMPACTED:
AUDI 207 Live Sound Reinforcement (27454)

ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:

(**Miramar**)
Audio Production and Engineering *Pending*;
Associate of Science Degree
Couses required:

SAN DIEGO COMMUNITY COLLEGE DISTRICT

MIRAMAR COLLEGE

Course Outline of Record:
Curriculum Proposal Report

SECTION I

    I. **Subject Area:** Audio Production & Engineering
    II. **Course Number:** 207
    III. **Course Title:** Live Sound Reinforcement
    IV. **Disciplines (Instructor Minimum Qualifications):** Music
    V.
    VI. **Family:** NONE
    VII. **Current Short Title:** Live Sound Reinforcement
    VIII. **Course Is Active/Where?**
    IX. **Originating Campus:** MIRAMAR
    X. **Action Proposed:** New Course
    XI. **Distance Education Proposed At:**
    XII. **Proposal Originating Date:** 09/15/2020
    XIII. **Proposed Start Semester:** Fall 2022
    XIV. **Field Trip:** May be required
    XV. **Grading Option:** Letter Grade or Pass/No Pass Option
    XVI. **Current Short Description:** Live sound technology, techniques, and skills.

SECTION II

COURSE ENROLLMENT INFORMATION

    I. **Requisites:**
    Prerequisite: MUSI 190 with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
    II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
    III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
    IV. **Repeatability:** Course may be taken 1 time(s)
    V. **Course Equivalency:** No
    VI. **Additional Information:**
    VII. **Additional Textbook Information:**

COURSE ANALYSIS DATA

    I. **Reason for Proposed Action:** New course to support revision to AS in Audio Production and Engineering.
    II. **How Does The Course Fit The College Mission?** 1. Vocational/Occupational
    III. **Current Transfer Options:**
    IV. **Proposed College/District Purpose:** 1. Major Requirement - Certificate of Achievement 2. Major Requirement - Associate Degree
    V. **Extraordinary Cost to the College:** Technology is already purchased and available at Miramar College..
    VI. **Library Resource Materials:** .

GENERAL EDUCATION ANALYSIS

REQUISITES ANALYSIS

Ability to safely and effectively operate the basic equipment found in an electronic music studio.

    I.   **Course: MUSI 190**   **Follow security and scheduling procedures, and cooperate with personnel responsible for the studio.**
    II.   **Course: MUSI 190**   **Operate the basic equipment found in an electronic music studio.**
    III.   **Course: MUSI 190**   **Explain how various electronic analog and digital instruments interface.**
    IV.   **Course: MUSI 190**   **Use technical manuals for reference.**

SECTION III

COURSE DISTANCE EDUCATION INFORMATION

   I. **MIRAMAR**
  II. **Distance Education Methods of Instruction:** 1. Partially online only
 III. **Other Distance Education Methods:**
 IV. **Type and frequency of contact may include, but is not limited to:**
     1. Announcements
       weekly
         Participant/s: Faculty to Student/s
     2. Discussion Board
       bi-weekly
         Participant/s: Faculty to Student/s , Among Students
     3. Email/Message System
       As needed throughout the semester
         Participant/s: Faculty to Student/s
     4. Field Trips
       As possible throughout the semester
         Participant/s: Faculty to Student/s , Among Students
     5. Group Meetings
       All lab dates
         Participant/s: Faculty to Student/s , Among Students
     6. Individualized Assignment Feedback
       Every lab assignment
         Participant/s: Faculty to Student/s , Among Students
     7. Synchronous or Asynchronous Video
       All online class meetings when there is no lab
         Participant/s: Faculty to Student/s , Among Students
   V. **List of Techniques:** Lecture materials and lessons may take place online, however students are required to attend labs, so that they can acquire the setup and operating skills necessary of needed equipment.
  VI. **How to Evaluate Students for Achieved Outcomes:** Students must attend lab activities and demonstrate in-person their abilities to setup, test, troubleshoot, and operate necessary equipment.
 VII. **Additional Resources/Materials/Information:** Online activities will be reading, writing, planning, and test taking such that all students can accomplish these requirements for the online portion of this course. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO

SECTION IV

COURSE STUDENT LEARNING OUTCOME(S)

MIRAMAR

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

   I. **Codes:**
     California Classification:
     TOP Code:
     SAM Code:
     Course Prior to College Level (CB21): -
     Funding Agency Category (CB23):
     Course Program Status (CB24):
     Course Gen Education Status (CB25):
     Course Support Course Status (CB26):
     Major Restriction Code:

II. **Lect Units:** 1.50
   Lab Units: 1.50
   Total Units: 3
   Lecture Hours Min: 24.00 **Max:** 27.00
   Lab Hours Min: 72.00 **Max:** 81.00
   Other Hours Min: 0.00 **Max:**0.00
   Total Contact Hours Min: 96.00 **Max:**108.00
   Outside-of-Class Hours Min: 48.00 **Max:**54.00
   Total Student Learning Hours Min: 144.00 **Max:** 162.00
   FTEF Lecture Min: 0.1000 **Max:**
   FTEF Lab Min: 0.3000 **Max:**
   FTEF Total Min: 0.4000 **Max:**
III. **Last Time Pre/Co Requisite Update:** 12/03/2020
IV. **Last Outline Revision Date:**
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

SECTION VI

CREDIT FOR PRIOR LEARNING

Credit by Portfolio Review: Yes
Portfolio Review Offered at:
  ☑ Miramar

SAN DIEGO COMMUNITY COLLEGE DISTRICT
MIRAMAR COLLEGE
ASSOCIATE DEGREE COURSE OUTLINE

SECTION I

SUBJECT AREA AND COURSE NUMBER: Audio Production & Engineering 208

COURSE TITLE: **Units:**

Advanced Audio Production and Engineering   3

Letter Grade or Pass/No Pass Option

CATALOG COURSE DESCRIPTION:

> This lecture/lab course covers advanced production and engineering techniques. This course is intended for students to practice their skills for applying and operating audio equipment and technology.

REQUISITES:

> **Prerequisite:**
> MUSI 190 with a grade of "C" or better, or equivalent

FIELD TRIP REQUIREMENTS:
May be required

TRANSFER APPLICABILITY:
Associate Degree Credit only and not Transferable

CID:

TOTAL LECTURE HOURS:
16 - 18

TOTAL LAB HOURS:
96 - 108

TOTAL CONTACT HOURS:
112 - 129

OUTSIDE-OF-CLASS HOURS:
32 - 36

TOTAL OTHER HOURS:
- 3

TOTAL STUDENT LEARNING HOURS:
144 - 165

STUDENT LEARNING OBJECTIVES:
Upon successful completion of the course the student will be able to:

> 1. Connect and operate audio equipment for audio production assignments.

2. Demonstrate the ability to operate audio systems without the need for written references.
3. Develop skills and confidence in applying and operating audio equipment.
4. Successfully apply advanced techniques and strategies into various audio projects.
5. Choose correct audio technology for the situational circumstance.

SECTION II

1. COURSE OUTLINE AND SCOPE:

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

Advance Audio Engineering

    Recording Processes
    Mixing Processes
    Mastering Processes

Advanced Audio Production

    Scheduling
    Coordinating all elements and personnel needed
    Project milestones
    Project completion

Assignments may include but are not limited to projects for:

    Radio
    TV
    Film
    Gaming
    Websites
    Audio/Visual
    Live Sound Reinforcement
    Business presentations

Knowledge and usage of audio terms and theory

    Equipment terms
    Planning and Scheduling terms
    Audio processing terms
    Reasons why and when to apply various devices and techniques

Designing and planning an audio system setup (connectivity) of audio systems

    Assessing needs
    PLanning for outcome realization
    I/O (input/output) routing and design

Operating equipment such as:

    Mixers
    Signal Processors
    Microphones
    Speakers
    Cabling
    And other equipment as needed

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Text books, magazine articles, Internet sources, equipment manuals

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Short-written, essays, papers, design plans, cable routing flow charts

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Assessment and critique of audio system performance in outside venues and in public areas. Assessment of audio equipment used in various systems (identifying equipment, brands, models).

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Assessment, critique, and reporting of audio system performance in outside venues, public areas, and amongst their student peers. Assessment and reporting of audio equipment used in various systems (identifying equipment, brands, models).

2. METHODS OF EVALUATION:

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Quizzes, exams, written assignments, project designs, project installations, equipment operation.

3. METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Distance Education (Partially online)
* Laboratory
* Learning Modules
* Lecture
* Lecture Discussion
* Lecture-Lab Combination

4. REQUIRED TEXTS AND SUPPLIES:
Textbooks may include, but are not limited to:

TEXTBOOKS:
1. Bill Gibson. Hal Leonard Recording Method Book 5: Engineering and Producing, 2nd ed. Hal Leonard Books, 2012, ISBN: 1458436926
2. Bobby Owsinski. The Mastering Engineer's Handbook, 4th ed. Bobby Owsinski Media Group, 2017, ISBN: 0998503320
3. Samuel J. Sauls. Audio Production Worktext: Concepts, Techniques, and Equipment, 9th ed. Routledge, 2019, ISBN: 1138557048

MANUALS:

PERIODICALS:

SOFTWARE:

SUPPLIES:
1. none

PROPOSAL ORIGINATOR: Channing Booth
CO-CONTRIBUTOR(S) Duane Short
PROPOSAL DATE: 12/04/2020

SAN DIEGO COMMUNITY COLLEGE DISTRICT
COURSE PROPOSAL IMPACT REPORT

COURSE TO BE PROPOSED: AUDI 208 Advanced Audio Production and Engineering

ACTIVE/APPROVED COURSES IMPACTED:
AUDI 208 Advanced Audio Production and Engineering (27917)

ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:

SAN DIEGO COMMUNITY COLLEGE DISTRICT

MIRAMAR COLLEGE

Course Outline of Record:
Curriculum Proposal Report

SECTION I

    I. **Subject Area:** Audio Production & Engineering
    II. **Course Number:** 208
    III. **Course Title:** Advanced Audio Production and Engineering
    IV. **Disciplines (Instructor Minimum Qualifications):** Commercial Music
    V.
    VI. **Family:** AUDIO SYSTM (Audio Systems-MUSI)
    VII. **Current Short Title:** Adv. Audio Prod. & Eng.
    VIII. **Course Is Active/Where?**
    IX. **Originating Campus:** MIRAMAR
    X. **Action Proposed:** New Course
    XI. **Distance Education Proposed At:**
    XII. **Proposal Originating Date:** 12/04/2020
    XIII. **Proposed Start Semester:** Fall 2022
    XIV. **Field Trip:** May be required
    XV. **Grading Option:** Letter Grade or Pass/No Pass Option
    XVI. **Current Short Description:** Advanced audio equipment and technology training and practice.

SECTION II

COURSE ENROLLMENT INFORMATION

    I. **Requisites:**
    Prerequisite: MUSI 190 with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
    II. **Current Degree Applicability:** Associate Degree Credit only and not Transferable
    III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
    IV. **Repeatability:** Course may be taken 2 time(s)
    V. **Course Equivalency:** No
    VI. **Additional Information:**
    VII. **Additional Textbook Information:**

COURSE ANALYSIS DATA

    I. **Reason for Proposed Action:** New course being added to the AS degree and Cert. of Achievement in Audio Production and Engineering.
    II. **How Does The Course Fit The College Mission?** 1. Vocational/Occupational
    III. **Current Transfer Options:**
    IV. **Proposed College/District Purpose:** 1. Major Requirement - Associate Degree
    V. **Extraordinary Cost to the College:** none. Equipment needed is already secured at Miramar College..
    VI. **Library Resource Materials:** .

GENERAL EDUCATION ANALYSIS

REQUISITES ANALYSIS

Skills learned from previous courses that included audio engineering and production.

    I.   **Course: MUSI 190   Follow security and scheduling procedures, and cooperate with personnel responsible for the studio.**
    II.   **Course: MUSI 190   Operate the basic equipment found in an electronic music studio.**
    III.   **Course: MUSI 190   Explain how various electronic analog and digital instruments interface.**
    IV.   **Course: MUSI 190   Use technical manuals for reference.**

SECTION III

COURSE DISTANCE EDUCATION INFORMATION

    I. **MIRAMAR**
   II. **Distance Education Methods of Instruction:** 1. Partially online only
  III. **Other Distance Education Methods:**
  IV. **Type and frequency of contact may include, but is not limited to:**
      1. Announcements
         Weekly
            Participant/s: Faculty to Student/s
      2. Collaborative Web Documents
         2 times per semester minimum
            Participant/s: Faculty to Student/s , Among Students
      3. Discussion Board
         bi-weekly minimum
            Participant/s: Faculty to Student/s , Among Students
      4. Email/Message System
         As needed throughout the semester.
            Participant/s: Faculty to Student/s , Among Students
      5. Field Trips
         May be required
            Participant/s: Faculty to Student/s , Among Students
      6. Group Meetings
         Lab days all students will be together, often doing group tasks
            Participant/s: Faculty to Student/s , Among Students
      7. Individual Meetings
         As needed for student success and graduation in completing this course.
            Participant/s: Faculty to Student/s
      8. Individualized Assignment Feedback
         After projects are completed.
            Participant/s: Faculty to Student/s
      9. Synchronous or Asynchronous Video
         Every other week is lecture, trading with in-person labs the other weeks. Many lectures will be given as videos posted online.
            Participant/s: Faculty to Student/s
    V. **List of Techniques:** Many lectures will be online (instructor lecture videos and class discussions) the same as would be given in person. Reading and writing assignments will included the same as in person.
  VI. **How to Evaluate Students for Achieved Outcomes:** Project completion, equipment operation, exams, written assignments.
 VII. **Additional Resources/Materials/Information:** Miramar College already has the necessary equipment for this course. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO

SECTION IV

COURSE STUDENT LEARNING OUTCOME(S)

MIRAMAR

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

    I. **Codes:**
       California Classification:
       TOP Code:

SAM Code:
Course Prior to College Level (CB21): -
Funding Agency Category (CB23):
Course Program Status (CB24):
Course Gen Education Status (CB25):
Course Support Course Status (CB26):
Major Restriction Code:
II. **Lect Units:** 1.00
Lab Units: 2.00
Total Units: 3
Lecture Hours Min: 16.00 **Max:** 18.00
Lab Hours Min: 96.00 **Max:** 108.00
Other Hours Min: 0.00 **Max:**3.00
Total Contact Hours Min: 112.00 **Max:**129.00
Outside-of-Class Hours Min: 32.00 **Max:**36.00
Total Student Learning Hours Min: 144.00 **Max:** 165.00
FTEF Lecture Min: 0.0667 **Max:**
FTEF Lab Min: 0.4000 **Max:**
FTEF Total Min: 0.4667 **Max:**
III. **Last Time Pre/Co Requisite Update:** 12/07/2020
IV. **Last Outline Revision Date:**
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

SECTION VI

CREDIT FOR PRIOR LEARNING

Credit by Portfolio Review: Yes
Portfolio Review Offered at:

☑ Miramar