# Interactive Audio

**Bachelor of Applied Science Degree**

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**Freshman Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Music Theory 1</td>
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<tr>
<td>Music Theory 2</td>
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</tbody>
</table>

**Sophomore Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Basic Recording 1</td>
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<tr>
<td>Basic Recording 2</td>
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<tr>
<td>Studio Maintenance 1</td>
</tr>
<tr>
<td>Studio Maintenance 2</td>
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<tr>
<td>Computer Music Production 1</td>
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<tr>
<td>Computer Music Production 2</td>
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</tbody>
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**Junior Year**

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Intermediate Recording and Production 1</td>
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<tr>
<td>Intermediate Recording and Production 2</td>
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<tr>
<td>Live Sound and Lighting 1</td>
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<tr>
<td>Digital Audio Workstations 1</td>
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<tr>
<td>Digital Audio Workstations 2</td>
</tr>
<tr>
<td>Interactive Design</td>
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<tr>
<td>Interactive Audio Fundamentals</td>
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<tr>
<td>Audio Post Production 1</td>
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</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Adaptive Audio Integration</td>
</tr>
<tr>
<td>Intermedia Composition</td>
</tr>
<tr>
<td>Programming for Sound Artists</td>
</tr>
<tr>
<td>Senior Research Project</td>
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<tr>
<td>Multimedia Assembly</td>
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</tbody>
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**Common Core**

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<tbody>
<tr>
<td>Media Sound &amp; Visual 1</td>
</tr>
<tr>
<td>Media Sound &amp; Visual 2</td>
</tr>
<tr>
<td>Living in a Media World 1</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

**Certification**

- Apple Authorized Training Center, Gold Level
- AVID Certified Pro School

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**First possible start date**

- Approx. 8 weeks Length of Term
- Approx. 16 weeks Length of Semester
- Approx. 8 months Length of Academic Year
- Approx. 32 months Length of Academic Program

**Steps to getting started**

- **Consultation/Campus Tour**
- **Submit Application $60**
  - Personal Essay
  - Testing (if applicable)
  - Transcripts
  - Scholarship Application
  - Financial Aid Application
  - Registration Fee $40
  - Orientation

**Program Specific**

- Music Theory 1
- Music Theory 2
- Basic Recording 1
- Basic Recording 2
- Studio Maintenance 1
- Studio Maintenance 2
- Computer Music Production 1
- Computer Music Production 2
- Intermediate Recording and Production 1
- Intermediate Recording and Production 2
- Live Sound and Lighting 1
- Digital Audio Workstations 1
- Digital Audio Workstations 2
- Intermediate Design
- Interactive Audio Fundamentals
- Audio Post Production 1
- Adaptive Audio Integration
- Intermedia Composition
- Programming for Sound Artists
- Senior Research Project
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**Elective: Professional Life Skills or Externship**

Professional Life Skills is an elective course. In lieu of taking Professional Life Skills, students may elect to take the externship elective. Students must complete an application process through the Education Department to determine eligibility for the externship.

**Logic Pro**

**Pro Tools**

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*This program contains a distance education component. Courses may be offered in part or entirely via distance learning.*

*This academic program typically follows the above course sequence. Ex'pression reserves the right to modify or change the school calendar, curriculum, method of delivery, class schedules, and/or course sequences as it deems necessary. San Jose is a branch campus of Ex’pression College, located in Emeryville, CA. Review our consumer disclosures at www.expression.edu/disclosures*

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**Interactive Audio**

**BACHELOR OF APPLIED SCIENCE DEGREE**

### Course Descriptions

**SA101 Music Theory I**
Music Theory I is designed to introduce students to the basic musical procedures as notation, staff, staff, scales, and chords. Includes detailed studies of meter, rhythm, and the interpretation of keyboard, harmonic, instrumentalization, and reading scores to apply theory in application studies. Critical listening exercises; understanding of the written work of classical composers; lecture and lab, as well as practical instruments and theories.

**SA102 Sound and Lighting I**
Sound and Lighting I introduces students to the fundamental principles and applications of the audio and lighting equipment used for major concert production. The different areas for live sound and light production are introduced, as well as the differences between studio and live sound production. Nonlinear recording, linear sound reinforcement, digital mixing, the various roles of touring personnel are explored and discussed.

**SA304 Digital Audio Workstations I**
Digital Audio Workstations I course prepares students to become familiar with the basic concepts and terminology of digital audio systems, MIDI, and automation and their applications. Students will gain insight into the DVD and internet delivery systems. MPEG-2 compression techniques, and tools required to take advantage of these standards. Students will gain an understanding of the software that is available to create and deliver audio and visual content to the digital age. Students will also gain an understanding of the various roles and phases of a system development life cycle and learn how to adapt their personal philosophy to the ever changing field of sound and image production.

**IA301 Interactive Design**
Course introduces interactive design of the playable game, and uses of the audio engine to edit, manipulate, and integrate sound assets into the game. Topics include: attenuation and delay, spatialization, object positioning, player interaction, object field, virtual sound spaces, and spatialization. Students will develop their own game concepts and gain experience in the use of different audio engines. A final design and implementation will be required through the Audio Post Production course students will use the tools and techniques learned in this course to create their own personal portfolio by the end of the course.

**Computer Music Production**
The Computer Music Production course gives students a practical introduction to the essential building blocks behind interactive audio and DSP programming. In this course we focus on developing efficient and effective strategies with the aid of sound engines, interactive music engines, and interactive audio engines. Students will use the sound engine to create an intelligent and adaptive music system.

**SA406 Multimedia Composition**
Multimedia Composition is an interdisciplinary course in which students apply their understanding of the musical instrument digital interface (MIDI) to the design of multimedia systems. All students are required to complete interactive audio project based on research of their own personal portfolio. At the end of the course students will present their Bachelor of Applied Science degree final project and thesis.

**Digital Audio Workstations II**
Digital Audio Workstations II course prepares students to become familiar with the advanced techniques and technologies for studio, and feature film projects. Through the projects, students will gain experience in the use of advanced DMX applications and techniques. Throughout the Pro Tools course, students will be exposed to the methods and skills needed to operate a Digital Audio Workstation (DAW) in a professional environment.

**Studio Maintenance II**
Students are given a guided opportunity to create, design, and assemble their own electronic device as well as hone their cable-making skills. In this process, they creatively apply the materials and technologies of their full complement of developed skills. Students will gain a practical introduction to the essential building blocks behind interactive audio engines and DSP programming. In this course we focus on developing effective strategies with the aid of sound engines, interactive music engines, and interactive audio engines. Students will use the sound engine to create an intelligent and adaptive music system.

**Computer/Audio Fundamentals**
Students explore composition, technological effects, the components of rhythm, and the correlation between different instrument families. Students will also gain insight into the DVD and internet delivery systems. MPEG-2 compression techniques, and tools required to take advantage of these standards. Students will gain an understanding of the software that is available to create and deliver audio and visual content to the digital age. Students will also gain an understanding of the various roles and phases of a system development life cycle and learn how to adapt their personal philosophy to the ever changing field of sound and image production.

**Audio Post Production**
Audio Post Production is a project-based course that explores the relationships between music, sound, and video. Through the use of digital audio, video, and photography, the students will learn to design, develop, and manage the creation of a wide range of multimedia content. The course will cover the fundamentals of audio design, sound engineering, and video production, and will include the use of a variety of software and hardware tools. The focus of the course will be on the use of audio and video in the creation of interactive audio projects.