# **MUSIC AND SONIC ARTS**

pcc.edu/programs/music-and-sonic-arts/

#### **CAREER AND PROGRAM DESCRIPTION**

The Music & Sonic Arts program at PCC's Cascade Campus seeks students interested in contemporary, commercial music and students excited to explore the limits of what is technologically and artistically possible through the creation of new sounds, new instruments, and new methods of performance and composition.

In an environment that combines music, art, science, coding, and design, students develop tools that prepare them for leadership in artistic, technical, educational, entrepreneurial and research efforts.

In addition, students learn to value the contributions of people of diverse backgrounds and to imagine the important roles of music and technology in the advancement of equity and the creation of economically and culturally vibrant communities.

The Music and Sonic Arts program is located at the Cascade Campus. PCC offers stackable degree options in Music & Sonic Arts: a less than one-year Music & Sonic Arts Career Pathway Certificate as well as a two-year AAS Degree in Music & Sonic Arts. Additionally, PCC offers a certificate in Creative Coding & Immersive Technologies.

# **DEGREES AND CERTIFICATES OFFERED**ASSOCIATE OF APPLIED SCIENCE DEGREE

Creative Coding & Immersive Technologies Music & Sonic Arts

# LESS THAN ONE-YEAR: CAREER PATHWAY CERTIFICATE

Creative Coding & Immersive Technologies Music & Sonic Arts

#### **Academic Prerequisites**

None

#### **Academic Requirements**

 The following professional music courses will be required of all program students. All sequential courses must be taken and passed in sequence.

#### **Non-Academic Prerequisites**

None

#### **Non-Academic Requirements**

• None

#### ASSOCIATE OF APPLIED SCIENCE DEGREE

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# CREATIVE CODING & IMMERSIVE TECHNOLOGIES AAS DEGREE

Minimum 92 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning. Students should consult with program advisors for course planning.

#### **Course of Study**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term            |   | Credits |
|-----------------------|---|---------|
| MUC 218               | Digital Arts & Equity                                     | 4       |
| MUC 270               | Audio Programming I: Introduction to Max/MSP              | 4       |
| MUC 272               | Creative Coding I   | 4       |
| MUC 274               | Microcontrollers for Artists                              | 4       |
| Second Term           |   |         |
| MUC 219               | Sonic Constructions of Identity                           | 4       |
| MUC 271               | Audio Programming II: Intermediate Max                    | / 4     |
| MUC 277               | Microcontrollers II                                       | 4       |
| MUC 282               | Creative Coding II  | 4       |
| Third Term            |   |         |
| MUC 233               | Math in the Arts §  | 4       |
| MUC 252<br>or CS 161  | Computer Vision or Computer Science I                     | 4       |
| MUC 275               | Creative Coding Capstone                                  | 4       |
| General Education:    | 1 course  |         |
| Fourth Term           |   |         |
| MM 242                | Immersive Technologies: Introduction to Unity             | 4       |
| MUC 240<br>or CS 140U | Interactive Portfolio Studio or Introduction to UNIX      | 4       |
| MUC 261               | Data Visualization & Sonification                         | 4       |
| MUC 263               | Experience Design with TouchDesigner                      | 4       |
| Fifth Term            |   |         |
| MUC 250               | AI & Machine Learning in the Arts I                       | 4       |
| MUC 262               | Interface Design  | 4       |
| General Education:    | 2 courses   |         |
| Sixth Term            |   |         |
| MM 271                | Interactive Storytelling                                  | 4       |
| MUC 206               | Body Interface Design                                     | 4       |
| MUC 251<br>or CS 160  | Natural Language Processing or Exploring Computer Science | 4       |
| General Education:    | 1 course  |         |
|                       | Total Credits   | 92      |

Could be used for General Education.

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Course cannot be substituted with another course.

#### **MUSIC & SONIC ARTS AAS DEGREE**

Minimum 90 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the courses in the program of study indicated with a § symbol. Students should consult with program advisors for course planning. Students should consult with program advisors for course planning.

#### Course of Study

The coursework listed below is required. The following is an example of a term-by-term breakdown.

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Wearable Technologies II: Design &

Sonic Arts Singing Workshop

Culture

Sound for Picture

### **MUSIC AND SONIC ARTS**

| First Term                       |   | Credits |
|----------------------------------|---|---------|
| MUC 101                          | Contemporary Music Theory I                             | 3       |
| MUC 120A                         | Sight Singing and Ear Training I                        | 1       |
| MUC 130A                         | Rhythm Training I                                       | 1       |
| MUC 140A                         | Group Piano I   | 2       |
| MUC 223                          | Recording Technology I: Analog Fundamentals             | 3       |
| MUS 170                          | Music Technology: Beats and Basics *                    | 3       |
| Second Term                      |   |         |
| MUC 102                          | Contemporary Music Theory II                            | 3       |
| MUC 120B                         | Sight Singing and Ear Training II                       | 1       |
| MUC 130B                         | Rhythm Training II                                      | 1       |
| MUC 140B                         | Group Piano II  | 2       |
| MUC 224                          | Recording Technology II: Signal Processing & Tracking   | 3       |
| MUS 171                          | Music Technology: Record and Mix                        | 3       |
| Third Term                       |   |         |
| MUC 103                          | Contemporary Music Theory III                           | 3       |
| MUC 120C                         | Sight Singing and Ear Training III                      | 1       |
| MUC 130C                         | Rhythm Training III                                     | 1       |
| MUC 140C                         | Group Piano III   | 2       |
| MUC 225                          | Recording Technology III: Running a Studio              | 3       |
| MUS 172                          | Music Technology: Record, Remix and DJ                  | 3       |
| Fourth Term                      |   |         |
| MUC 200A                         | Composition I: Principles and Techniques                | 3       |
| MUC 210                          | Contemporary Music Theory IV: Analysis                  | 3       |
| MUC 218                          | Digital Arts & Equity                                   | 4       |
| MUC 270                          | Audio Programming I: Introduction to Max/MSP            | 4       |
| Music and Sonic Art              | s Music Electives                                       | 3       |
| Fifth Term                       |   |         |
| MUC 200B                         | Composition II: Electronic Music Composition            | 3       |
| MUC 271                          | Audio Programming II: Intermediate Max                  | 4       |
| Music and Sonic Art              | s Music Electives                                       | 4       |
| General Education:<br>Sixth Term | 2 courses   |         |
| MUC 200C                         | Composition III: Multimedia & Multichannel Channel Comp | 3       |
| MUC 233                          | Math in the Arts §                                      | 4       |
| MUC 250                          | AI & Machine Learning in the Arts I                     | 4       |
| Music and Sonic Art              |   | 3       |
| General Education:               | 1 course  |         |
|                                  | Total Credits   | 90      |
|                                  |   | 2.0     |
| *                                |   |         |

Could be used as General Education.

Course cannot be substituted with another course.

#### MUSIC & SONIC ARTS MUSIC ELECTIVES

| Code    | Title                                      | Credits |
|---------|--|---------|
| MUC 104 | Enclosures I: Tools & Processes            | 1       |
| MUC 105 | Enclosures II: Design & Culture            | 1       |
| MUC 106 | Wearable Technologies I: Tools & Processes | 1       |

| 1000 120                 | Souria for Flotare                                 | -   |
|--------------------------|--|-----|
| MUC 127                  | Sound for Picture: Sound Design                    | 4   |
| MUC 144                  | Contemporary Singing I                             | 2   |
| MUC 144B                 | Contemporary Singing II                            | 2   |
| MUC 144C                 | Contemporary Singing III                           | 2   |
| MUC 154A                 | Band Performance Workshop                          | 2   |
| MUC 154B                 | Band Performance Workshop                          | 2   |
| MUC 154C                 | Band Performance Workshop III                      | 2   |
| MUC 166                  | Songwriting and Music Publishing                   | 2   |
| MUC 170A                 | Intro to Ableton I: Art of Beat Making             | 1   |
| MUC 170B                 | Intro to Ableton II: Analyze, Deconstruct, Rebuild | 1   |
| MUC 170C                 | Intro to Ableton III: Record, Produce, Perform     | 1   |
| MUC 181                  | Music as a Career                                  | 3   |
| MUC 182                  | Introduction to Pro Tools                          | 1   |
| MUC 185                  | Introduction to Logic Pro                          | 1   |
| MUC 201                  | Analog Modular Synthesis                           | 3   |
| MUC 203                  | Sonic Arts Capstone                                | 2   |
| MUC 236                  | Studio Recording Technology IV                     | 3   |
| MUC 237                  | Studio Recording Technology V                      | 3   |
| MUC 238                  | Studio Recording Technology VI                     | 3   |
| MUC 250                  | AI & Machine Learning in the Arts I                | 4   |
| MUC 272                  | Creative Coding I                                  | 4   |
| MUC 273                  | Programming Interactive Video                      | 4   |
| MUC 274                  | Microcontrollers for Artists                       | 4   |
| MUC 275                  | Creative Coding Capstone                           | 4   |
| MUC 277                  | Microcontrollers II                                | 4   |
| MUC 278                  | Generative Art on the Web                          | 4   |
| MUC 280A                 | Cooperative Education: Vocational Music            | 1-3 |
| MUC 282                  | Creative Coding II                                 | 4   |
| MUC 285                  | Game Audio: Design                                 | 4   |
| MUC 286                  | Game Audio: Music                                  | 4   |
| MUC 287                  | Game Audio: Implementation                         | 4   |
| MUS 141                  | Introduction to Contemporary Songwriting           | 4   |
| MUS 216                  | History of Hip Hop Music and Culture               | 4   |
| MUS 217                  | History of Electronic Music                        | 4   |
| LESS THAN OF CERTIFICATE | NE-YEAR: CAREER PATHWAY                            |     |
| Creative Coding & In     | mmersive Technologies (n. 2)                       |     |

MUC 107

MUC 115

MUC 126

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### **CREATIVE CODING & IMMERSIVE TECHNOLOGIES: CAREER PATHWAY CERTIFICATE**

Minimum 24 credits. Students must meet certificate requirements.

### **Creative Coding & Immersive Technologies** Courses

| Code    | Title  | Credits |
|---------|--|---------|
| MUC 270 | Audio Programming I: Introduction to Max/MSP | 4       |
| MUC 271 | Audio Programming II: Intermediate Max MSP   | 4       |

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| MUC 272       | Creative Coding I            | 4  |
|---------------|------------------------------|----|
| MUC 274       | Microcontrollers for Artists | 4  |
| MUC 277       | Microcontrollers II          | 4  |
| MUC 282       | Creative Coding II           | 4  |
| Total Credits |                              | 24 |

# MUSIC & SONIC ARTS: CAREER PATHWAY CERTIFICATE

Minimum 39 credits. Students must meet certificate requirements.

### **Course of Study**

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term            |  | Credits |
|-----------------------|--|---------|
| MUC 101               | Contemporary Music Theory I                              | 3       |
| MUC 120A              | Sight Singing and Ear Training I                         | 1       |
| MUC 130A              | Rhythm Training I  | 1       |
| MUC 140A              | Group Piano I  | 2       |
| MUC 223               | Recording Technology I: Analog Fundamentals              | 3       |
| MUS 170               | Music Technology: Beats and Basics                       | 3       |
| Second Term           |  |         |
| MUC 102               | Contemporary Music Theory II                             | 3       |
| MUC 120B              | Sight Singing and Ear Training II                        | 1       |
| MUC 130B              | Rhythm Training II                                       | 1       |
| MUC 140B              | Group Piano II   | 2       |
| MUC 224               | Recording Technology II: Signal<br>Processing & Tracking | 3       |
| MUS 171<br>Third Term | Music Technology: Record and Mix                         | 3       |
| MUC 103               | Contemporary Music Theory III                            | 3       |
| MUC 120C              | Sight Singing and Ear Training III                       | 1       |
| MUC 130C              | Rhythm Training III                                      | 1       |
| MUC 140C              | Group Piano III  | 2       |
| MUC 225               | Recording Technology III: Running a Studio               | 3       |
| MUS 172               | Music Technology: Record, Remix and DJ                   | 3       |
|                       | Total Credits  | 39      |