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University Name  
Designation Level of Certificate Program<sup>1</sup>

Name of Certificate

CIP Code (check SCHEV's Degree/Certificate Inventory to be sure CIP code is not already used for another certificate program at the same designation level)<sup>2</sup>

Initiation Date (fall or spring or summer and the year)

Description of Certificate

**Discuss purpose/intent of the certificate program.**

**Indicate what knowledge and skills students will acquire.**

**Discuss what graduates will do/be prepared to do in employment.**

**Indicate requirements (e.g., examinations) of government agencies (e.g., VA Department of Education), licensing boards, or accrediting organizations, if applicable.**

Target Audience

**Describe the specific individuals the institution intends to target for enrollment in the certificate program.**

Time to Complete

**Indicate time to complete in full academic years for fulltime and part-time students degree seeking.**

**Indicate time to complete in full academic years for fulltime and part-time students non-degree seeking.**

**Note: summer is only included if enrollment is required.**

Admission

**Provide specific criteria and requirements to enroll in the certificate program. Indicate if admission requirements will apply to all students. Indicate minimum scores for Test of English as a Foreign Language (TOEFL) and International English Language Testing**

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<sup>1</sup> See the SCHEV website for Guide Documents "Certificate Program Definitions" for designation level <http://www.schev.edu/index/institutional/guidance-policies/academic-affairs-policy/state-level-requirements-for-approval-of-various-academic-program-actions-at-public-institutions>

<sup>2</sup> See the SCHEV website for the Degree Inventory <http://www.schev.edu/index/students-and-parents/explore/degree-inventory>

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**System (IETLS) – degree seeking and non-degree seeking students. Use a bulleted list for requirements.**

#### Curriculum Requirements

**Provide a concise summary to describe the focus of the curriculum. Indicate the focus of the required coursework. Indicate what students will understand and learn as a result of required coursework.**

**Describe how the curriculum aligns with requirements of government agencies (e.g., VA Department of Education), licensing boards, or accrediting organizations, if applicable. As an appendix item, provide a copy of the organization’s requirements for coursework, curriculum, or program outcomes related specifically to the curriculum.**

**Indicate the total number of credit hours for the certificate program. Provide a list of all required courses and indicate credit hour value. List restricted electives, if applicable. Indicate the number of credits for free electives, if applicable. Indicate the credit hour requirements for sub areas, a description of the area, and required courses, if applicable.**

**Describe experiential learning requirements, if applicable.**

#### Faculty

**Summarize faculty credentials including specific discipline area(s). Indicate availability of existing faculty. If using adjunct faculty, indicate the number of adjunct faculty, credentials, and teaching support that would be used to offer the certificate. If adjunct faculty will not be utilized, indicate such.**

#### Course Delivery Format

**Indicate the program’s delivery method. If the program is face-to-face, indicate availability of classroom and physical space. If the program will be offered in hybrid format and/or fully online, describe the institutional resources including the platform that will be used to support online instruction. Describe training requirements and resources used to train faculty to teach courses online. Indicate whether the institution has resources to deliver the certificate program.**

#### Resources

**Describe the resources to offer the certificate program. Explain additional costs and include dollar amount for resources to initiate and sustain the certificate program. If additional faculty time and/or a program administrator are needed, indicate such. If new courses are developed, indicate faculty resources to teach new courses. Indicate whether the institution has resources to offer and sustain the certificate program.**

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### Gainful Employment

**Indicate whether or not the certificate is a Gainful Employment program. Indicate whether the certificate program will come under Gainful Employment regulations or why the program will not come under Gainful Employment regulations.**

### Course Descriptions

**Provide course information (course designator, title, and credit hour value) and the description for all required courses and restricted electives, if applicable. Course descriptions should come from the institution's current catalog. Indicate whether courses are new.**

### Attachments

**Include original support documents (e.g., licensure requirements, industry standards, certification examination requirements) and/or contracts (e.g., external vendors, organizations, or agencies). Do not include the heading if attachments are not needed.**

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## **EXAMPLES OF NARRATIVE TEXT FOR SELECT SECTIONS**

### Curriculum Requirements

The curriculum will focus on preparing students to create music using computer technology. Students will gain an understanding of innovations in music technology and learn the basic tools that computer music researchers and artists use to create sound. Coursework will focus on musical data conversion and using music production software to create sound. The capstone project will afford students the opportunity to utilize knowledge and skills they have obtained throughout the curriculum to produce a music demo. Students will present the demo during the course.

### Program Requirements

#### Number of Credit Hours

21 credit hours of graduate level courses

New courses are denoted with an asterisk.

#### **Core Courses – 12 credit hours**

CSM 500 Computer and Music (3 cr)  
CSM 521/MUS 521 Music Technology (3 cr)  
CSM 550 Computer Science Music (3 cr)  
MUS 575 Music Theory (3 cr)

#### **Restricted Electives – 6 credit hours**

Two courses must be selected from the courses listed.

CSM 590 Music Computing and Design I (3 cr)  
CSM 591 Music Computing and Design II (3cr)  
MUS 509 Music Production (3 cr)  
MUS 510 Music Video Production (3 cr)  
MUS 520 Music in the Decades (3 cr)

#### **Capstone Project – 3 credit hours**

CSM 600/MUS 600, Mastering Computer Music\* (3 Cr)  
*Or*  
CSM 601/MUS 601 Music Internship\* (3 cr)

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### Internship

Students completing the internship will be required to complete 100 contact hours at a local music facility. Internships will be coordinated by the faculty member teaching the course. Students will be required to submit a portfolio of work completed during the internship. The portfolio will be reviewed by the site manager and graded by the instructor.

### Faculty

Faculty appointments in the certificate program are established by recommendation of the chair of the Department of Computer Science and the Department of Music. Three faculty members in the Department of Computer Science and two faculty members in the Department of Music will teach in the certificate program.

Minimum requirements for faculty teaching in this certificate include:

- A master's degree in Music, Computer Science, or a related field;
- Three years of teaching or course development experience; and
- Five years of experience in the field of music or computer science.

Three adjunct faculty will be used to teach courses and each will possess appropriate credentials including certification and/or have additional certifications in the field of music, music management, or computer science. Examples of positions held by former and current adjunct faculty include: assistant art or music manager, senior information manager, and vice president of music technology. Adjunct faculty will be utilized to expose students to real-world experiences and educated professionals working in the field.

### Course Delivery Format

This certificate program will be offered in a traditional, face-to-face format and fully online. Thus, both physical space and software to facilitate synchronous and asynchronous online sessions are required. The university has adequate classroom and lab space. The university utilizes Blackboard to deliver content and Skype for face-to-face discussions and presentations. The university provides help desk service 24/7 for all online programs. All faculty members providing online instruction are required to complete training offered by Quality Matters. The University has sufficient resources to deliver the certificate program.

### Resources

Resources required to support the program include existing resources to support current programs such as student support services (e.g., enrollment, help desk, and library); faculty support services (e.g., copying and contracts); and general administration (e.g., budgeting and forecasting). More specific program administration is required to maintain contacts with associations and involvement in appropriate networking events as well as conduct periodic program reviews to ensure the program is kept current with industry trends and market needs.

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Faculty in the Departments of Computer Science and Music created new courses for the certificate program. Faculty time to teach the courses will be included in existing teaching loads. No new positions will be created to initiate the certificate. Adjunct faculty will be hired to teach courses. Resources for the adjunct faculty are provided the Department of Computer Science. The university has adequate resources to offer and sustain this certificate program.

### Gainful Employment

The Musicology certificate is not a Gainful Employment program and the certificate will not come under Gainful Employment regulations. Students in the certificate will not be eligible to receive Title IV funding.

### Course Descriptions

New courses are denoted with an asterisk.

#### **Core courses**

##### CSM 500 Computer and Music (3 cr)

Create original projects using a variety of music production software tools for sequencing, sound editing, synthesis, and effects. Get familiar with music notation software. Edit and mix a studio session using Pro Tools. Get hands-on training with microphones, mixers, and other live sound equipment.

##### CSM 521/MUS 521 Music Technology (3 cr)

Of all music technology, the sequencer has arguably benefited the most from computer science, giving birth to the very genre termed “computer music.” What are the basic tools that computer music researchers and artists use to create sound? This course will include a summary of digital synthesis techniques (additive, subtractive, wavetable, frequency modulation and physical-modeling), signal processing techniques for digital effects, (reverberation, panning, filters), and basic psychoacoustics.

##### CSM 550 Computer Science Music (3 Cr)

Computers and technology play a major role in the 21<sup>st</sup> century music scene. Audio sequencers, MIDI and associated laptops are standard operating equipment for performers. Indeed, popular music today – from indie rock to hip-hop to house – would not be the same without innovations in computer science and technology. This course explores the pioneering inventions and innovations in music technology that, through the use of computers, continue to define the musical experience of today.

#### **Restricted electives**

##### CSM 590, Music Computing and Design I (3 Cr)

Creative design for computer music software. Programming, audiovisual design, as well as software design for musical tools, instruments, toys, and games. Provides paradigms and

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strategies for designing and building music software, with emphases on interactive systems, aesthetics, and artful product design. Course work includes several programming assignments and a "design+implement" final project.

### **Capstone courses**

\*CSM 600/MUS 600, Mastering Computer Music (3 Cr)

Introduction to computer assisted notation, composition and performance using a computer, digital keyboard, and software for notation (Finale) and digital sequencing (Reason). In-depth study of sequencing software (Reason), including the construction of unique combinations, drum patterns and fills, and advanced study of mix-down procedures and use of multiple effects processors. Advanced study of sequencing software (Reason) including construction of patches from basic (raw) synthesized sounds, incorporation of various external sampling techniques, and advanced study of each of the individual onboard synthesizers and sample players.