

SOUTH DAKOTA BOARD OF REGENTS

Academic and Student Affairs
Consent

AGENDA ITEM: 8 – C (5)
DATE: June 22-23, 2022

SUBJECT

New Program – USD – BS in Music – Music Technology and Industry Specialization

CONTROLLING STATUTE, RULE, OR POLICY

[BOR Policy 2:23](#) – Program and Curriculum Approval
[AAC Guideline 2.4](#) – Intent to Plan for a New Program

BACKGROUND / DISCUSSION

The University of South Dakota (USD) requests permission to offer a BS program in Music, with a specialization in Music Technology and Industry. Students in the proposed program will develop skills in every aspect of music technology, including product development, digital marketing, studio recording, and commercial music, developing an understanding of musical styles that range from classical to contemporary. Students completing this program will be prepared for fields such as music directing and composing, audio and video technicians, sound engineering technicians, web development and digital interface designers.

The Intent to Plan for this program was approved at the [March 2022](#) Board meeting, per AAC Guideline 2.4.

IMPACT AND RECOMMENDATION

USD requests authorization to offer the program on campus and online. There are no new courses required for the proposed program. USD does not request new state resources. USD anticipates 22 enrolled students and 5 graduates within four years.

Board office staff recommends approval of the program.

ATTACHMENTS

Attachment I – New Program Request: USD – BS in Music – Music Technology and Industry Specialization

DRAFT MOTION 20220622_8-C(5):

I move to authorize USD to offer a BS in Music, with a specialization in Music Technology and Industry, as presented.



**SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS**

New Undergraduate Degree Program

UNIVERSITY:	USD
MAJOR:	Music major with Music Technology and Industry specialization
EXISTING OR NEW MAJOR(S):	New
DEGREE:	Bachelor of Science
EXISTING OR NEW DEGREE(S):	Existing
INTENDED DATE OF IMPLEMENTATION:	Fall 2023
PROPOSED CIP CODE:	50.0913
SPECIALIZATIONS:	Music Technology and Industry
IS A SPECIALIZATION REQUIRED (Y/N):	Yes
DATE OF INTENT TO PLAN APPROVAL:	3/30/2022
UNIVERSITY DEPARTMENT:	Music
BANNER DEPARTMENT CODE:	UMUS
UNIVERSITY DIVISION:	College of Fine Arts
BANNER DIVISION CODE:	

X	<p><u>Please check this box to confirm that</u> (place an “X” in the left box):</p> <ul style="list-style-type: none"> • The individual preparing this request has read AAC Guideline 2:9, which pertains to new undergraduate degree program requests, and that this request meets the requirements outlined in the guidelines. • This request will not be posted to the university website for review of the Academic Affairs Committee until it is approved by the Executive Director and Chief Academic Officer.
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University Approval

To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.

President of the University

Date

Note: In the responses below, references to external sources, including data sources, should be documented with a footnote (including web addresses where applicable).

1. What is the nature/purpose of the proposed program? Please include a brief (1-2 sentence) description of the academic field in this program.

The Music BS with Music Technology and Industry specialization program will prepare students to be successful professionals in the fields of music technology and music industry. These fields are listed within the Music, General (CIP code 50.0901), and include web developers and digital interface designers, music directors and composers, audio and video technicians, and sound

engineering technicians. Students will receive a solid foundation in music, music technology, music industry, and the liberal arts as they prepare for a career in fields like sound recording, music production, electronic music, and design. Curriculum in the music technology and industry program reflects the need for a blend of music and technology in today's professional world. Students will develop skills in every aspect of music technology from product development to digital marketing to studio recording to commercial music. They will develop an understanding of musical styles that range from classical to contemporary music. The major is suitable for students with a variety of academic and musical backgrounds. Students will develop musical knowledge and the ability to use a variety of technical and digital tools. They will also develop problem-solving, troubleshooting and communication skills.

2. How does the proposed program relate to the university's mission and strategic plan, and to the current Board of Regents Strategic Plan 2014-2020?

The University of South Dakota's mission, as provided in BOR Policy 1:10:1, and SDCL 13-57-1 includes:

*The legislature established The University of South Dakota as the liberal arts university to meet the needs of the State and region by providing undergraduate and graduate programs in the liberal arts and sciences, and **professional education** in business, education, **fine arts**, law, and medicine, and other courses or programs as the Board of Regents may determine. (SDCL 13-57-1)*

USD is South Dakota's flagship institution for Fine Arts. It is the only regental university that offers the bachelor and master of music degrees. The Music BS with Music Technology and Industry specialization degree will further enhance the professional offerings in music and better prepare graduates for careers that utilize the ever-expanding world of technology. This program will enable the Fine Arts to evolve to meet changing workforce demands and will provide outstanding, cutting edge education in music.

3. Describe the workforce demand for graduates of the program, including national demand and demand within South Dakota.

Provide data and examples; data sources may include but are not limited to the South Dakota Department of Labor, the US Bureau of Labor Statistics, Regental system dashboards, etc. Please cite any sources in a footnote.

EMSI data from the SDBOR Program Demand Gap Analysis Report indicate a need for this program. Table 3.1 lists programs with a significant gap or surplus. The data for Music, General (CIP code 50.0901) indicate an annual gap between openings and completions of 27.¹ Many of the categories within this CIP Code rely implicitly or explicitly on technological knowledge.² These categories include web developers and digital interface designers, music directors and composers, audio and video technicians, and sound engineering technicians. EMSI data indicate that fields related to music technology are projected to grow. For example, the category "Performing Arts, Spectator Sports, & Related Industries" is projected to grow by 18.3% by 2030³ and the category "Music Directors & Composers" is projected to grow by 14% by 2030.⁴

¹ SDBOR Program Demand Gap Analysis Report, p. 40

² SDBOR Program Demand Gap Analysis Report: Supporting Appendices, p 74 (p. 153 of .pdf)

³ SDBOR Program Demand Gap Analysis Report: Supporting Appendices, p. 12 (p. 91 of .pdf)

⁴ SDBOR Program Demand Gap Analysis Report: Supporting Appendices, p. 106 (p. 185 of .pdf)

Statewide South Dakota Employment Projections by Industry⁵ indicate that long-term employment projections are expected to increase in areas where a music technology degree would be viable, including the following (parenthesized number is the NAICS Code):

- Museums, Historical Sites, and Similar Institutions (712): 20.6% projected growth
- Performing Arts, Spectator Sports, and Related Industries (711): 12.6% projected growth
- Sporting Goods, Hobby, Book, and Music Stores (451): 10.8% projected growth
- Motion Picture and Sound Recording Industries (512): 5.6% projected growth
- Amusement, Gambling, and Recreation Industries (713): 5.2% projected growth
- Religious, Grantmaking, Civic, Professional, and Similar Organizations (813): 2.4% projected growth

Statewide South Dakota Employment Projections by Occupation⁶ indicate that long-term employment projections are expected to increase in areas where a music technology degree would be viable, including the following (parenthesized number is the SOC Code):

- Audio and Visual Equipment Technicians (27-4011): 16.9% projected growth
- Web Developers (15-1134): 13.7% projected growth
- Advertising, Marketing, Promotions, Public Relations, and Sales Managers (11-2000): 10.5% projected growth
- Meeting, Convention and Event Planners (13-1121): 9.5% projected growth
- Religious Workers (21-2000): 7.9% projected growth
- Entertainers and Performers, Sports and Related Workers (27-2000): 6.5% projected growth
- Arts, Design, Entertainment, Sports, and Media Occupations (27-0000): 3.5% projected growth
- Media and Communication Workers (27-3000): 2.6% projected growth

The US Bureau of Labor Statistics⁷ data indicate that national long-term employment projections are expected to increase in areas where a music technology degree would be viable, including the following:

- Broadcast, Sound, and Video Technicians (21% projected growth)⁸
- Film and Video Editors and Camera Operators (29% projected growth)⁹
- Music Directors and Composers (6% projected growth)¹⁰

The explosion in streaming services and digital entertainment experienced during the past ten years and magnified by COVID have indicated that long-term forecasts for growth are indeed valid.¹¹

⁵ SD Department of Labor Market Information (https://dlr.sd.gov/lmic/menu_projections_industry_statewide.aspx)

⁶ SD Department of Labor Market Information (https://dlr.sd.gov/lmic/menu_projections_occupation_statewide.aspx)

⁷ <https://www.bls.gov/ooh/arts-and-design/home.htm>

⁸ <https://www.bls.gov/ooh/media-and-communication/broadcast-and-sound-engineering-technicians.htm>

⁹ <https://www.bls.gov/ooh/media-and-communication/film-and-video-editors-and-camera-operators.htm>

¹⁰ <https://www.bls.gov/ooh/entertainment-and-sports/music-directors-and-composers.htm>

¹¹ See, for example <https://www.grandviewresearch.com/industry-analysis/music-streaming-market>

Business leaders in the state and region indicate that there is a need for this program. Craig Baltzer, Executive Director of The Monument in Rapid City, states the following in his letter of support:

On the music production side of the major, we currently employ one production manager and two production techs, all of which need education/experience in the areas that you described. Currently, if we were to replace one of these positions we know we would have to hire from outside the state or hire and train them up ourselves, as we have always done. It is difficult to find people with the education and/or experience that we need in South Dakota. . . . It seems to me the field of production, commercialization and technology is a fast growing and constantly changing in tech development. I would only expect further growth and demand in these areas. I personally feel that our region is already behind. . . . I support any effort to increase regional music, video, and lighting techs and the businesses that go with it.¹²

Letters of support are attached as Appendix C. They include the following:

- Craig Baltzer, Executive Director, The Monument, Rapid City
- Chris Fickel, Worship Pastor, Celebrate Community Church, Sioux Falls
- Don Langlie, President, Popplers Music, Inc., Grand Forks, ND/Sioux Falls
- Tim Savona, General Manager, Tyson Events Center, Sioux City IA

There is a demonstrated need for this program within this region, and data indicate that demand for this program will continue to increase.

4. How will the proposed program benefit students?

Technological advances in the last 10 to 15 years have given everyone the ability to manipulate music, from professional studios to children with personal devices. But when students come to college to major in music, there is often a disconnect between the “classic” music education and what they would like to pursue as a career within the music industry. The music technology and industry specialization provides students with 1) a solid foundation in music performance, history and theory; and 2) the opportunity to develop significant technological skills in production, design, business and marketing. In short, the proposed Music Technology and Industry curriculum will enable students to learn the vocabulary, principles, and skills necessary to perform the work of a music technology and industry professional.

There are only two programs of this type in the region: one at the University of Northern Iowa, and one at Montana State University. There are no institutions within the states of South Dakota, North Dakota, Minnesota, Wyoming, or Nebraska that offer a similar program. Given the demand indicated above, this program will benefit students who wish to go into this field and remain in our region.

DSU has a Specialization in Digital Sound Design as part of their B.S. in Digital Arts and Design. There are a few topic areas that overlap between their degree and ours, but the programs are significantly different in both focus and curriculum. Broadly speaking, DSU’s specialization is focused on technical hardware and the coding process, while our program is a liberal arts-based professional degree in music, accredited by NASM, that that contains a business and industry focus that the DSU program completely lacks.

¹² Letter is attached as Appendix B.

Specific Differences:

1. Accreditation:
 - a. DSU: Not a professional music degree, not accredited
 - b. USD: Professional music degree accredited by NASM
2. Outcomes: The learning outcomes show specific differences between the programs.¹³ USD outcomes are aligned directly with NASM standards for this degree. Italicized areas are unique to each of the programs.
 - a. DSU: Fluidity with industry *Digital Audio Workstation (DAWs)*, *computer sciences*, and recording technologies are essential for success in the sound design and music industry. Furthermore, you'll create *audio for technology, animation, game design*, advertising, and more.”
 - b. USD: The major will combine *traditional music training with two cross-curricular areas of study: Production & Design, and Business & Marketing. The flexible curriculum will provide the student with a well-rounded liberal arts education. The coursework includes skill development in areas such as electronic music, audio production and sound design, and provides students with a foundation in music theory, music history, finance and accounting, and marketing.*
3. Curriculum: The curriculum is reflective of the outcomes above. Graduates of our program must meet standards set by our accrediting body, NASM. The USD curriculum ensures that students reach a high level of musical proficiency on their applied instrument, and has far more rigorous requirements for applied lessons, ensemble participation, music history, and music theory. Students must also fulfill professional requirements such as piano proficiency and recital attendance.
 - a. Number of credits in Music courses required:
 - i. DSU: 13-16
 - ii. USD: 46
 - b. Number of credits required in coding and computer hardware:
 - i. DSU: 15 (CSC105, CIS123/CIS130/CSC150, CSC163, CSC274, CSC374)
 - ii. USD: 0
 - c. Number of business and marketing courses required:
 - i. DSU: 0
 - ii. USD: 3-15

The USD major will combine traditional music training with two cross-curricular areas of study: Production & Design, and Business & Marketing. The flexible curriculum will provide the student with a well-rounded liberal arts education. The coursework includes skill development in areas such as electronic music, audio production and sound design, and provides students with a foundation in music theory, music history, finance and accounting, and marketing.

Salaries for careers associated with areas where a music technology degree would be viable include the following, based on the US Bureau of Labor Statistics data, 2020 median pay:¹⁴

- Broadcast, Sound, and Video Technicians: \$50,000¹⁵
- Film and Video Editors and Camera Operators: \$61,900¹⁶
- Music Directors and Composers: \$52,250¹⁷

¹³ <https://dsu.edu/programs/digital-sound-design-bs.html>

¹⁴ <https://www.bls.gov/ooh/arts-and-design/home.htm>

¹⁵ <https://www.bls.gov/ooh/media-and-communication/broadcast-and-sound-engineering-technicians.htm>

¹⁶ <https://www.bls.gov/ooh/media-and-communication/film-and-video-editors-and-camera-operators.htm>

¹⁷ <https://www.bls.gov/ooh/entertainment-and-sports/music-directors-and-composers.htm>

EMSI data indicate salaries within the region of SD, IA, MN, and NE are as follows for career areas within the CIP code for “Music Technology”:¹⁸

- Audio and Video Technicians: \$21.54/hr
- Music Directors and Composers: \$22.15/hr
- Sound Engineering Technicians: \$26.40/hr

The final benefit of this program for students is flexibility. The curriculum for this program, which is based on standards established by our accrediting body, offers students a highly customizable degree which readily allows additional minors or a second major.

5. Program Proposal Rationale:

A. If a new degree is proposed, what is the rationale?

N/A

B. What is the rationale for the curriculum?

The proposed Music Technology and Industry curriculum will enable students to learn the vocabulary, principles, and skills necessary to perform the work of a music technology professional. The major will be a combination of traditional music training while also providing a cross disciplinary study of design, technology, and business that will enhance their understanding of the music profession but also allow for specific technological guidance that will help the student develop a well-rounded liberal arts education. The coursework will include skill development in music manipulation technology, digital recording equipment, and allow to develop students an appreciation and understanding of music through theory, history, applied study, and ensemble performance.

C. Demonstrate/provide evidence that the curriculum is consistent with current national standards. Complete the tables below and explain any unusual aspects of the proposed curriculum?

The curriculum was vetted against the standards for the Bachelor of Science in Music with a Specialization in Music Technology and Industry as outlined by the National Association of Schools of Music, the accrediting body for Music.¹⁹ Additionally, the curriculum was compared with those of similar institutions and established programs across the United States. These programs included: Northern Iowa the University, Montana State University, Central Missouri State, and Indiana University Purdue University Indianapolis.

D. Summary of the degree program (complete the following tables):

Music with Music Technology and Industry, BS	Credit Hours	Credit Hours	Percent
System General Education Requirements	30 (-3)		
Subtotal, Degree Requirements		30	25%
Required Support Courses (not included above)			
Major Requirements	69		
Major Electives	0		
Subtotal, Program Requirements		69	57.5%

¹⁸ EMSI Music Technology Program Overview, see Appendix C.

¹⁹ [NASM Handbook 2020-2021](#)

Music with Music Technology and Industry, BS	Credit Hours	Credit Hours	Percent
Free Electives		21	17.5%
Degree Total		120	100%
<i>Board Policy 2:29 requires each baccalaureate level degree program to require 120 credit hours and each associate degree program to require 60 credit hours. Exceptions to this policy require documentation that programs must comply with specific standards established by external accreditation, licensure, or regulatory bodies or for other compelling reasons, and must receive approval by the Executive Director in consultation with the President of the Board of Regents.</i>			

Major Requirements

Prefix	Number	Course Title	Credit Hours	New (yes, no)
Music Major Core courses (37 credit hours):				
MUS	101	Intro to Music Studies	1	No
MUS	110	Music Theory I	3	No
MUS	110L	Aural Skills I	1	No
MUS	111	Music Theory II	3	No
MUS	111L	Aural Skills II	1	No
MUS	210L	Aural Skills III	1	No
MUS	211L	Aural Skills IV	1	No
MUS	240	Music Cultures of the World [SGR #4]	3	No
MUS	250	Intro to Electronic Music	2	No
MUS	360	Conducting	2	No
MUAP	170	Recital Lab 1	0	No
MUAP	270	Recital Lab 2	0	No
MUAP	370	Recital Lab 1	0	No
MUAP	470	Recital Lab 2	0	No
MUAP	XXX	Applied Lessons (1X0, 2X0, 3X0, 4X0)	7	No
MUAP	XXX	Applied Lessons (1X1, 2X1, 3X1, 4X1)	8	No
MUEN	XXX	Major Ensemble (1XX, 3XX) or MUS 117	4	No
Music Technology and Industry Specialization coursework:				
Select 9 credit hours from the following:				
MUS	100	Music Appreciation: Classical [SGR #4]	3	No
MUS	100	Music Appreciation: Jazz [SGR #4]	3	No
MUS	100	Music Appreciation: Rock and Roll [SGR #4]	3	No
MUS	330	History of Music I	3	No
MUS	331	History of Music II	3	No
Also need:				
MUS	491	Independent Study (Capstone Project)	1	No
MUAP	117	Class Piano I for Music Major Proficiency	2	No
MUAP	118	Class Piano II for Music Major Proficiency	2	No
In addition to the music core, students in the Bachelor of Science with an emphasis in Music Technology and Industry degree program must complete course work in two distinct areas: 1) Production & Design; and 2) Business & Marketing. Students must complete a total of 18 credit hours from the list below. Two courses, ENTR 311 and MCOM 221, are required. The remaining 12 credit hours will be chosen by the				

Prefix	Number	Course Title	Credit Hours	New (yes, no)
		student in consultation with their Faculty Advisor. Bolded classes are required.		
		Production & Design		
MCOM	221	Audio Production	3	No
THEA	403	Sound Design	3	No
THEA	445	Lighting	3	No
THEA	140	Survey of Technical Theatre Production	3	No
MCOM	151	Introduction to Mass Communication	3	No
MCOM	330	Writing for Digital Media	3	No
MCOM	331	Video Production	3	No
ARTD	205	Digital Design	3	No
ARTD	325	Digital and Web Design	3	No
ARTD	425	Digital and Web Design II	3	No
		Business & Marketing		
ENTR	311	Finance & Accounting for Entrepreneurs	3	No
ECON	201	Principles of Microeconomics	3	No
BADM	370	Marketing	3	No
MCOM	241	Social Media Marketing	3	No
MCOM	402	Media Law and Ethics	3	No
MCOM	440	Event Marketing	3	No
MCOM	441	Internet Marketing Communication	3	No
MKTG	481	Promotional Management	3	No
		Subtotal	69 (3)	

6. Student Outcomes and Demonstration of Individual Achievement

- A. What specific knowledge and competencies, including technology competencies, will all students demonstrate before graduation?** *The knowledge and competencies should be specific to the program and not routinely expected of all university graduates, and must relate to the proposed assessments in B and C below. Complete the table below to list specific learning outcomes—knowledge and competencies—for courses in the proposed program in each row. Label each column heading with a course prefix and number. Indicate required courses with an asterisk (*). Indicate with an X in the corresponding table cell for any student outcomes that will be met by the courses included. All students should acquire the program knowledge and competencies regardless of the electives selected. Modify the table as necessary to provide the requested information for the proposed program.*

See Appendix A for the table. In demonstrating the following discipline-specific core competencies related to study of Music Technology and Industry, students will:

- Develop the ability to hear, identify, and work conceptually with the elements of music such as rhythm, melody, harmony, structure, timbre, and texture.
- Understand and develop the ability to read and realize musical notation.
- Develop an understanding of compositional processes, aesthetic properties of style, and the way these shape and are shaped by artistic and cultural forces.
- Become acquainted with a wide selection of musical literature, the principal eras, genres, and cultural sources, for example, classical, jazz, popular, and world music forms.
- Develop the ability to understand and develop skills and procedures in the area of performance as a soloist and ensemble member.

- Develop the ability to integrate and synthesize basic musical, technological, promotional, and financial knowledge and skills into the conceptualization of projects.
- Develop the musical and technical capabilities to produce basic level work in area of music technology.

In addition, the Music Technology and Industry major will require students to meet specific learning outcomes associated with the following cross-curricular skills, as required by the South Dakota Board of Regents:

- Inquiry and Analysis
- Critical and Creative Thinking
- Information Literacy
- Problem Solving
- Integrative Learning

B. Are national instruments (i.e., examinations) available to measure individual student achievement in this field? If so, list them.

There are no national instruments to measure individual student achievement in music technology.

C. How will individual students demonstrate mastery? Describe the specific examinations and/or processes used, including any external measures (including national exams, externally evaluated portfolios, or student activities, etc.). What are the consequences for students who do not demonstrate mastery?

Each student will demonstrate mastery by fulfilling the requirements associated with each outcome specified in 6A above.

7. What instructional approaches and technologies will instructors use to teach courses in the program? This refers to the instructional technologies and approaches used to teach courses and NOT the technology applications and approaches expected of students.

Standard outcome-oriented techniques will be used for instruction, including lecture, labs, one to one instruction, large group rehearsals, and a capstone project. Coursework will include exercises and projects utilizing a variety of software and equipment specific to the music field, including sound boards, composition software, recording software, and microphones.

8. Did the University engage any developmental consultants to assist with the development of the curriculum? Did the University consult any professional or accrediting associations during the development of the curriculum? What were the contributions of the consultants and associations to the development of curriculum?

(Developmental consultants are experts in the discipline hired by the university to assist with the development of a new program, including content, courses, and experiences, etc. Universities are encouraged to discuss the selection of developmental consultants with Board staff.)

The university did not engage any consultants. We did consult with NASM, the professional accrediting association for Music, to ensure that the curriculum would conform to the standards of the accrediting body.

9. Are students enrolling in the program expected to be new to the university or redirected from other existing programs at the university? Complete the table below and explain the methodology used in developing the estimates.

<i>Estimates</i>	Fiscal Years*			
	1 st	2 nd	3 rd	4 th
	FY 24	FY 25	FY 26	FY 27
Students new to the university	2	3	5	5
Students from other university programs	1	2	2	2
Continuing students	0	3	8	15
=Total students in the program (fall)	3	8	15	22
Program credit hours (major courses) **	51.75	138	258.75	379.5
Graduates	0	0	2	5

*Do not include current fiscal year.

**This is the total number of credit hours generated by students in the program in the required or elective program courses. Use the same numbers in Appendix B – Budget.

Methodology is based on qualitative data indicating an interest in this program (3-4 inquiries a year) and on newly developed articulation agreements with regional community colleges, including Western Iowa Technical Institute, Northeast Community College (NE), and Northwest Community College (WY). Further articulation agreements with Iowa Western Community College, Kirkwood Community College, Southeast Community College (NE) are planned to increase opportunities for enrollment in this program.

Credit hours were determined as follows: 69 credit hours are required in the major, divided by 4 (4-year program) equals 17.25 credits per student per year, times the number of students in the program.

IPEDS data indicate that music technology programs are generally successful. One difficulty in using IPEDS data is that many institutions use the CIP code for Music, General to identify students in Music Technology programs. In part this is because, as noted above, many of the categories within the Music, General CIP Code rely implicitly or explicitly on technological knowledge.²⁰ Some regional examples using the Music Technology specific CIP Code (50.0913) and the Music, General CIP Code (50.901) include:

Institution	Degree	CIP Code	AY20	AY19	AY18	AY17	AY16
University of Northern Iowa	BA Music Technology	50.0913	1	1	2	1	1
Montana State University	BA Music Technology	50.0901	8	14	17	13	19
Central Missouri State	BM Music Technology	50.0901	18	13	10	13	8

²⁰ SDBOR Program Demand Gap Analysis Report: Supporting Appendices, p 74 (p. 153 of .pdf)

Institution	Degree	CIP Code	AY20	AY19	AY18	AY17	AY16
Indiana University Purdue University Indianapolis	BS Music Technology	50.0913	8	7	3	6	11

While the University of Northern Iowa's program has struggled, data indicate that within the larger region these programs are successful. We do not believe this program will be at risk for low enrollment.

10. Is program accreditation available? If so, identify the accrediting organization and explain whether accreditation is required or optional, the resources required, and the University's plans concerning the accreditation of this program.

The National Association of Schools of Music (NASM) will accredit the Music Technology and Industry program in the same way it accredits other Department of Music programs.

11. Does the University request any exceptions to any Board policy for this program? Explain any requests for exceptions to Board Policy. If not requesting any exceptions, enter "None."
None.

12. Delivery Location

Note: The accreditation requirements of the Higher Learning Commission (HLC) require Board approval for a university to offer programs off-campus and through distance delivery.

A. Complete the following charts to indicate if the university seeks authorization to deliver the entire program on campus, at any off campus location (e.g., UC Sioux Falls, Capital University Center, Black Hills State University-Rapid City, etc.) or deliver the entire program through distance technology (e.g., as an online program)?

	Yes/No	Intended Start Date
On campus	Yes	Fall 2023

	Yes/No	If Yes, list location(s)	Intended Start Date
Off campus	No		

	Yes/No	If Yes, identify delivery methods <i>Delivery methods are defined in AAC Guideline 5.5.</i>	Intended Start Date
Distance Delivery (online/other distance delivery methods)	No		
Does another BOR institution already have authorization to offer the program online?	No	If yes, identify institutions:	

B. Complete the following chart to indicate if the university seeks authorization to deliver more than 50% but less than 100% of the program through distance learning (e.g., as an online program)? This question responds to HLC definitions for distance delivery.

	Yes/No	If Yes, identify delivery methods	Intended Start Date
Distance Delivery (online/other distance delivery methods)	No		Fall 2023

13. Cost, Budget, and Resources: Explain the amount and source(s) of any one-time and continuing investments in personnel, professional development, release time, time redirected from other assignments, instructional technology & software, other operations and maintenance, facilities, etc., needed to implement the proposed major. Address off-campus or distance delivery separately. Complete Appendix A – Budget and briefly summarize to support Board staff analysis.

This program was designed to use existing capacity in courses taught within the College of Fine Arts, the Beacom School of Business, and the Department of Media and Journalism within the College of Arts and Sciences. The program likewise uses facilities and labs that are already in place for other programs:

- Personnel: this program will use courses already in existence, these courses have not filled to capacity in past years, so there is room to add the new majors without creating new sections.
- Professional development: this program will use existing courses for which faculty are already trained and qualified. Faculty will continue to engage in professional development in their areas of expertise using the resources already dedicated for that purpose, no new resources will be required.
- Release time: the program will not require any faculty member or administrator to use release time.
- Time redirected from other assignments: this program will use existing courses so teaching time will not need to be redirected. For example, the additional required student advising will be distributed amongst the music faculty normally, and within current load.
- Instructional technology & software: this program will use resources already in existence, such as the electronic music studio, the theatre technical studio, the graphic design lab, the media and journalism editing suites, and the media and journalism computer lab. No new lab spaces, technology, or software will be required.
- Other operations and maintenance, facilities, etc.: this program will share resources already dedicated to the Department of Music. For example, marketing for the program will be folded into the general departmental marketing campaign that includes all departmental majors and will cost no additional dollars.

See Appendix B for detail.

14. Is the university requesting or intending to request permission for a new fee or to attach an existing fee to the program (YES or NO)? If yes, explain.

No

15. New Course Approval: New courses required to implement the new undergraduate degree program may receive approval in conjunction with program approval or receive approval separately. Please check the appropriate statement (place an “X” before the statement):

	YES, <i>the university is seeking approval of new courses related to the proposed program in conjunction with program approval. All New Course Request forms are included as Appendix B and match those described in section 5D.</i>
X	NO, <i>the university is not seeking approval of all new courses related to the proposed program in conjunction with program approval; the institution will submit new course approval requests separately or at a later date in accordance with Academic Affairs Guidelines.</i>

16. Additional Information:

Additional information is optional. Use this space to provide pertinent information not requested above. Limit the number and length of additional attachments. Identify all attachments with capital letters. Letters of support are not necessary and are rarely included with Board materials. The University may include responses to questions from the Board or the Executive Director as appendices to the original proposal where applicable. Delete this item if not used.

Please see the following Appendices for additional information:

- Appendix A: Individual student outcomes table
- Appendix B (attached Excel document): Budget spreadsheet
- Appendix C (attached PDF): Industry letters of support:
 - Craig Baltzer, Executive Director, The Monument, Rapid City
 - Chris Fickel, Worship Pastor, Celebrate Community Church, Sioux Falls
 - Don Langlie, President, Popplers Music, Inc., Grand Forks, ND/Sioux Falls
 - Tim Savona, Tyson Events Center, Sioux City IA

1. Assumptions

		1st FY24	2nd FY25	3rd FY26	4th FY27
<i>Headcount & hours from proposal</i>					
Fall headcount (see table in proposal)		2	5	10	15
Program FY cr hrs, On-Campus		35	86	173	259
Program FY cr hrs, Off-Campus		0	0	0	0
Faculty, Regular FTE	See p. 3	0.05	0.10	0.20	0.25
Faculty Salary & Benefits, average	See p. 3	\$95,971	\$95,971	\$95,971	\$95,971
Faculty, Adjunct - number of courses	See p. 3	0	0	0	0
Faculty, Adjunct - per course	See p. 3	\$0	\$0	\$0	\$0
Other FTE (see next page)	See p. 3	0.00	0.00	0.00	0.00
Other Salary & Benefits, average	See p. 3	\$0	\$0	\$0	\$0

2. Budget

Salary & Benefits

Faculty, Regular		\$4,799	\$9,597	\$19,194	\$23,993
Faculty, Adjunct (rate x number of courses)		\$0	\$0	\$0	\$0
Other FTE		\$0	\$0	\$0	\$0
S&B Subtotal		\$4,799	\$9,597	\$19,194	\$23,993

Operating Expenses

Travel		\$0	\$0	\$0	\$0
Contractual Services		\$0	\$0	\$0	\$0
Supplies & materials		\$0	\$0	\$0	\$0
Capital equipment		\$0	\$0	\$0	\$0
OE Subtotal		\$0	\$0	\$0	\$0
Total		\$4,799	\$9,597	\$19,194	\$23,993

3. Program Resources

Off-campus support tuition/hr, HEFF net	UG	\$313.95	\$313.95	\$313.95	\$313.95
Off-campus tuition revenue	hrs x amt	\$0	\$0	\$0	\$0
On-campus support tuition/hr, HEFF net	UG	\$229.30	\$229.30	\$229.30	\$229.30
On-campus tuition revenue	hrs x amt	\$7,911	\$19,777	\$39,555	\$59,332
Program fee, per cr hr (if any)	\$26.35	\$909	\$2,273	\$4,545	\$6,818
Delivery fee, per cr hr (if any)	\$0.00	\$0	\$0	\$0	\$0
University redirections		\$0	\$0	\$0	\$0
Community/Employers		\$0	\$0	\$0	\$0
Grants/Donations/Other		\$0	\$0	\$0	\$0
Total Resources		\$8,820	\$22,050	\$44,100	\$66,150

Resources Over (Under) Budget

\$4,021 \$12,453 \$24,906 \$42,157

Provide a summary of the program costs and resources in the new program proposal.

Estimated Salary & Benefits per FTE	Faculty	Other
Estimated salary (average) - explain below	\$75,459	\$0
University's variable benefits rate (see below)	0.1410	0.1410
Variable benefits	\$10,640	\$0
Health insurance/FTE, FY22	\$9,872	\$9,872
<i>Average S&B</i>	\$95,971	\$9,872

Explain faculty used to develop the average salary & fiscal year salaries used. Enter amount above.

This program will use courses already in existence, these courses have not filled to capacity in past years, so there is room to add the new majors without creating new sections. The portion of the FTE used currently exists within the department, but this shows how costs could be allocated to this program.

Explain adjunct faculty costs used in table:

N/A

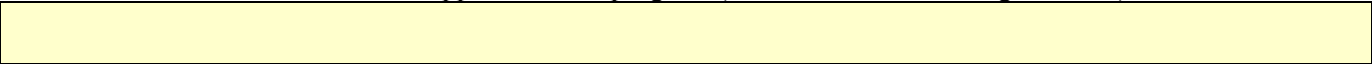
Explain other [for example, CSA or exempt] salary & benefits. Enter amount above.

N/A

Summarize the operating expenses shown in the table:

This program will use resources already in existence, such as the electronic music studio, the theatre technical studio, the graphic design lab, the media and journalism editing suites, and the media and journalism computer lab. No new lab spaces, technology, or software will be required. There are not operating costs to attribute to this proposed program.

Summarize resources available to support the new program (redirection, donations, grants, etc).



State-support: Change cell on page 1 to use the UG or GR net amount.

Off-Campus Tuition, HEFF & Net	FY22 Rate	HEFF	Net	
Undergraduate	\$354.75	\$40.80	\$313.95	<i>Change cell on page 1 to point to your net</i>
Graduate	\$470.45	\$54.10	\$416.35	
Externally Supported	\$40.00			

State-support: Change cell on page 1 to use the UG or GR net amount for your university.

On-Campus Tuition, HEFF & Net	FY22 Rate	HEFF	Net	
UG Resident - DSU, NSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
UG Resident - SDSU, USD	\$259.10	\$29.80	\$229.30	
UG Resident - BHSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
UG Resident - SDSMT	\$0.00	\$0.00	\$0.00	
GR Resident - DSU, NSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
GR Resident - SDSU, USD	\$340.15	\$39.12	\$301.03	
GR Resident - BHSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
GR Resident - SDSMT	\$0.00	\$0.00	\$0.00	
UG Nonresident - DSU, NSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
UG Nonresident - BHSU	\$0.00	\$0.00	\$0.00	
UG Nonresident - SDSU, USD	\$376.10	\$43.25	\$332.85	<i>Change cell on page 1 to point to your net</i>
UG Nonresident - SDSMT	\$0.00	\$0.00	\$0.00	
GR Nonresident - DSU, NSU	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>
GR Nonresident - BHSU	\$0.00	\$0.00	\$0.00	
GR Nonresident - SDSU, USD	\$654.05	\$75.22	\$578.83	<i>Change cell on page 1 to point to your net</i>
GR Nonresident - SDSMT	\$0.00	\$0.00	\$0.00	
UG Sioux Falls Associate Degree	\$0.00	\$0.00	\$0.00	<i>Change cell on page 1 to point to your net</i>

Variable Benefits Rates

University	FY22	
BHSU	14.64%	<i>Change the benefits rate cell in the table on page 2 to point to the rate for your university.</i>
DSU	14.36%	
NSU	14.31%	
SDSM&T	14.20%	
SDSU	14.38%	
USD	14.10%	

Bruce C. Kelley, Ph.D.

Dean, College of Fine Arts
Professor of Music
University of South Dakota

Dear Bruce,

I am writing in support of the possible Music Technology degree that you described to me in our communications today.

The Monument is a complex of sports, entertainment, and convention venues. As part of our property, we have large convention facilities, a proper theater, and multiple arenas including our new Summit Arena that was a \$130M project and opened just 3 weeks ago.

On the music production side of the major, we currently employ one production manager and two production techs, all of which need education/experience in the areas that you described. Currently, if we were to replace one of these positions we know we would have to hire from outside the state or hire and train them up ourselves, as we have always done. It is difficult to find people with the education and/or experience that we need in South Dakota.

This production team is a growing department. Not only the addition of our new arena has us currently re-evaluating our own needs, we are also intending to grow our convention production as our convention business is booming in Rapid City. This would take an investment in more equipment and more personnel.

We work with IATSE Stagehand Union for part time sound, video, and lighting engineers. 3 years ago we renegotiated with the Union to have the training of these engineers as our responsibility and at our cost. The reason we did that was because the qualified techs left in this group were past retirement age, and no effort to recruit and educate the next generation. We have slow growth in these areas that now benefit the entire region, as these part time techs also work the Sturgis Motorcycle Rally, The Deadwood Mountain Grand event Center, the Pennington County Fair, and many rodeos in the community. I know this is also an issue in Sioux Falls.

There are a few production companies that we can turn to in our region, however most cannot handle some of the more professional events that we do. So we often go to Minneapolis or Denver to find the equipment and expertise that we need. This is not cost effective for many of the events that we host. I see a need for growth there, and know it is also needed in Sioux Falls.

On the Marketing and Business side of the major, we do have a small marketing department handling very large projects. We do not have any techs on our team and have to rely on outside agencies. This is another area we could internally expand in, but more importantly the outside agencies in the area cannot always produce the professional level that we or our events are looking for. Again we often have to go to

Denver or Minneapolis to find that level of professional production management, equipment and tech expertise.

The degree that was explained to me would also be beneficial for our current positions in marketing management.

It seems to me the field of production, commercialization and technology is a fast growing and constantly changing in tech development. I would only expect further growth and demand in these areas. I personally feel that our region is already behind.

As my final thought: at one time the Black Hills could boast on a lot of industrial film, commercial work, and Hollywood movies on location here. This is a business that our facilities could expend into so of course I have looked into it. I have asked current leaders in our tourism community, business community and others who have worked on those projects in the late 80s and early 90s of why do we not attract of that kind of business in the area now. The answer is consistently that we do not have the local techs and expertise that these productions rely on when producing in our region.

I support any effort to increase regional music, video, and lighting techs and the businesses that go with it.

Thank you for involving me in this discussion.

Sincerely,



Craig Baltzer
Executive Director
The Monument
Rapid City, SD



December 10, 2021

Dr. Bruce Kelley
Dean, College of Fine Arts
University of South Dakota

Dr. Kelley,

I can't say how exciting this is for me that you are considering a new degree for Music Technology. Being a Worship Pastor for the last 20 years I have seen first hand the growing need for qualified people in this field. The church, as we have known it to be up to now, will not sustain long term if we do not learn how to best connect with people and where they are at today. Simply put, technology in the church is a must if we want to be effective in today's world. For those churches who make this decision to embrace technology, they will be needing plenty of qualified staff to handle the growing needs within their congregations. The area of technology within churches pertaining to music and creative has grown to new heights in recent years, especially with needs in live-streaming, broadcasting, video (live and post production), social media needs, etc. I'm so grateful for your interest in adding this degree and for your investment in passionate and educated people for future hires within the ministry.

Sincerely,

Chris Fickel

Chris Fickel
Worship Pastor
Celebrate Community Church



Grand Forks, ND | Sioux Falls, SD
800-437-1755 | 800-568-2508

12-6-2021

Dr. Bruce Kelley
Dean, College of Fine Arts
University of South Dakota

Dear Dr. Kelley,

I am writing in support of the proposed degree in Music Technology. As a music retailer serving the upper Midwest, we have frequent interaction with public and private school music faculty that are challenged by both their own limitations regarding this specialty field as well as helping their students find a career in music that is outside of education.

The music industry is far more than teaching and performance. I am often approached about the "business" of music and what that career path might entail. It is difficult to advise as the needs are so varied, but ultimately, the changing landscape of music production, recording, sound reinforce, and social media are driving the need for programs such as being considered by the University of South Dakota. Popular culture would imply that "learning on one's own" or "learning on the job" are sufficient. This conjecture is certainly rare in the real world.

I applaud the forward thinking of the University to maximize existing programs and offer specific courses to address this critical area of Music Business.

Best Wishes as you move forward!

Sincerely,

Don Langlie, President
Popplers Music, Inc.

**TYSON EVENTS CENTER****TIM SAVONA**

General Manager, Spectra Venue Management
Tyson Events Center & Orpheum Theatre
401 Gordon Drive Sioux City, IA 51101
O: 712-279-4817 Tim.Savona@spectrap.com

November 22, 2021

Bruce Kelley
Dean, College of Fine Arts
University of South Dakota

Dear Mr. Kelley,

I am writing to share my support and excitement of your potential new degree relating to Music Technology. Our industry is always searching for additional talent to support the ever growing and popular entertainment business. The scope as you have lined out covers many facets of our industry and would provide a plethora of knowledge and ready bodies across many fields.

The industry relies on many layers of skilled individuals, whether that be local venue staff, union and non-union stagehands, local or regional production companies, audio/video/lighting techs, 'roadies' who work tours on a regional and national scale, and much more. There are thousands upon thousands of jobs that would benefit from something like this.

We commend you for your vision and we look forward to seeing this come to fruition. I have no doubt the opportunities for these students would be a plenty.

Kind Regards,

TIM SAVONA
General Manager

Program Overview

Music Technology

Emsi Q4 2021 Data Set

November 2021

South Dakota

Parameters

Programs:

Code	Description
50.0913	Music Technology

Regions:

Code	Description	Code	Description
19	Iowa	31	Nebraska
27	Minnesota	46	South Dakota

Education Level: Any

Tuition Type: Tuition & Fees

Graduate Status: Undergraduate

Residency: In-State

Completions Year: 2020

Jobs Timeframe: 2020 - 2021

Job Postings Timeframe: Sep 2016 - Dec 2020

Program Overview

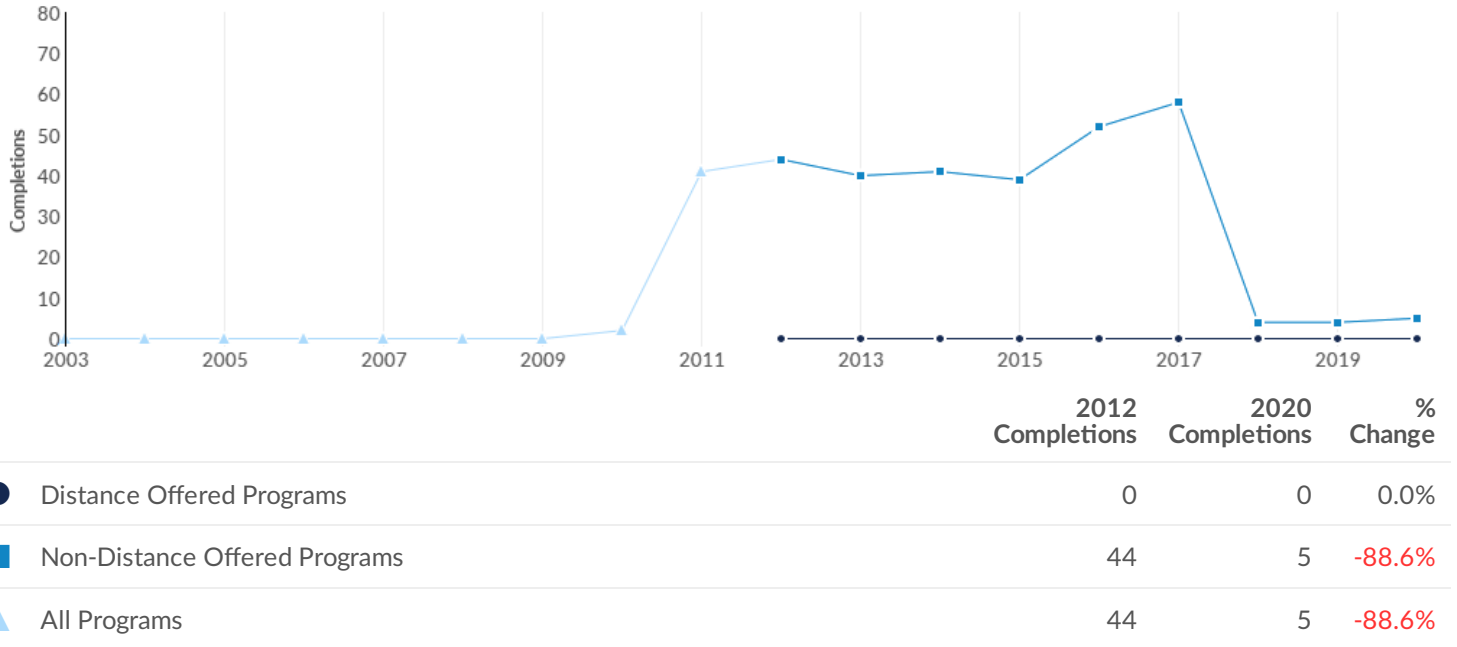


	Completions (2020)	% Completions	Institutions (2020)	% Institutions
● All Programs	5	100%	3	100%
● Distance Offered Programs	0	0%	0	0%
● Non-Distance Offered Programs	5	100%	3	100%

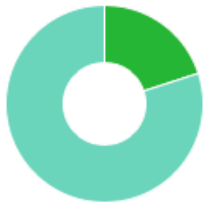
Completions by Institution

Institution	Completions (2020)	Growth % YOY (2020)	Market Share (2020)	IPEDS Tuition & Fees (2020)
Buena Vista University	3	50.0%	60.0%	\$36,426
University of Northern Iowa	1	0.0%	20.0%	\$8,938
Rochester Community and Technical College	1	0.0%	20.0%	\$5,252

Regional Trends



Regional Completions by Award Level



Award Level	Completions (2020)	Percent
Award of less than 1 academic year	1	20.0%
Bachelor's Degree	4	80.0%
Award of at least 1 but less than 2 academic years	0	0.0%
Associate's Degree	0	0.0%
Award of at least 2 but less than 4 academic years	0	0.0%
Postbaccalaureate certificate	0	0.0%
Master's Degree	0	0.0%
Post-masters certificate	0	0.0%
Doctor's Degree	0	0.0%

Similar Programs

27

Programs (2020)

1,960

Completions (2020)

CIP Code	Program	Completions (2020)
50.0901	Music, General	607
50.0501	Drama and Dramatics/Theatre Arts, General	444
13.1312	Music Teacher Education	307
10.0203	Recording Arts Technology/Technician	120
50.0401	Design and Visual Communications, General	119
50.0903	Music Performance, General	103
10.0202	Radio and Television Broadcasting Technology/Technician	48
50.1003	Music Management	29
50.0506	Acting	27
09.0799	Radio, Television, and Digital Communication, Other	20

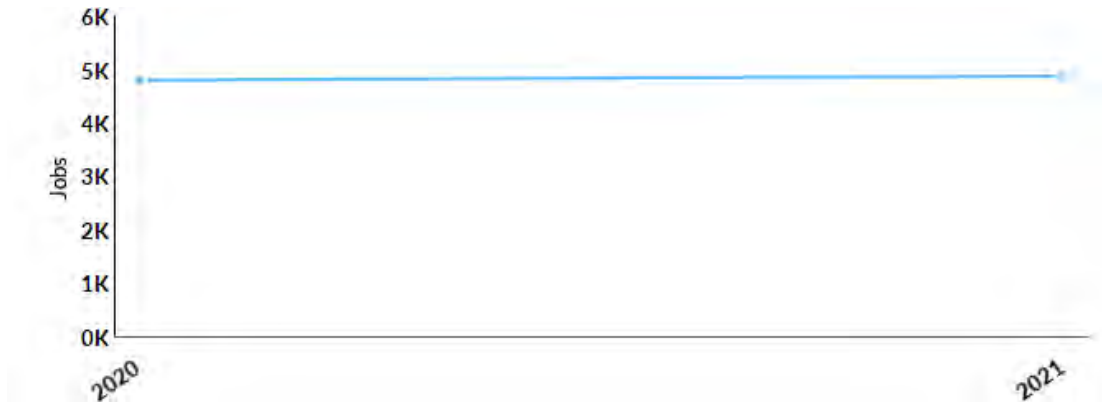
Target Occupations

<p>4,787</p> <p>Jobs (2020)</p> <p>20% below National average</p>	<p>+1.5%</p> <p>% Change (2020-2021)</p> <p>Nation: +1.5%</p>	<p>\$22.22/hr</p> <p>\$46.2K/yr</p> <p>Median Earnings</p> <p>Nation: \$23.39/hr;</p> <p>\$48.7K/yr</p>	<p>602</p> <p>Annual Openings</p>
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Occupation	2020 Jobs	Annual Openings	Median Earnings	Growth (2020 - 2021)	Location Quotient (2020)
Audio and Video Technicians	2,301	275	\$21.54/hr	+1.69%	0.74
Music Directors and Composers	2,004	260	\$22.15/hr	+1.10%	0.90
Sound Engineering Technicians	482	68	\$26.40/hr	+2.70%	0.69

Growth

4,787 2020 Jobs	4,861 2021 Jobs	74 Change (2020-2021)	1.5% % Change (2020-2021)
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Occupation	2020 Jobs	2021 Jobs	Change	% Change
Music Directors and Composers (27-2041)	2,004	2,026	22	1%
Audio and Video Technicians (27-4011)	2,301	2,340	39	2%
Sound Engineering Technicians (27-4014)	482	495	13	3%

\$16.06/hr

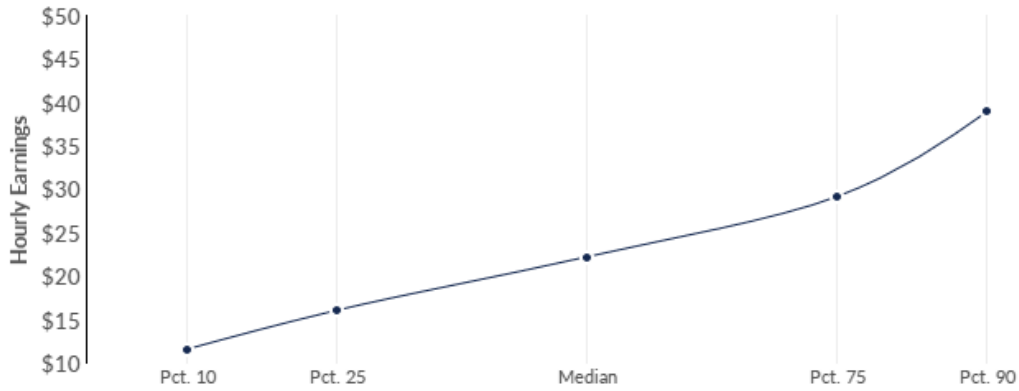
25th Percentile Earnings

\$22.22/hr


Median Earnings

\$29.15/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Music Directors and Composers (27-2041)	\$15.57	\$22.15	\$30.00
Audio and Video Technicians (27-4011)	\$15.88	\$21.54	\$27.81
Sound Engineering Technicians (27-4014)	\$19.61	\$26.40	\$34.20

<p style="text-align: center;">2,998</p> <p style="text-align: center;">Unique Postings 9,458 Total Postings</p>	<p style="text-align: center;">3 : 1</p> <p style="text-align: center;">Posting Intensity</p>  <p style="text-align: center;">Regional Average: 4 : 1</p>	<p style="text-align: center;">32 days</p> <p style="text-align: center;">Median Posting Duration Regional Average: 30 days</p>
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There were 9,458 total job postings for your selection from September 2016 to December 2020, of which 2,998 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is close to the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that they are putting average effort toward hiring for this position.

Job Postings vs. Hires

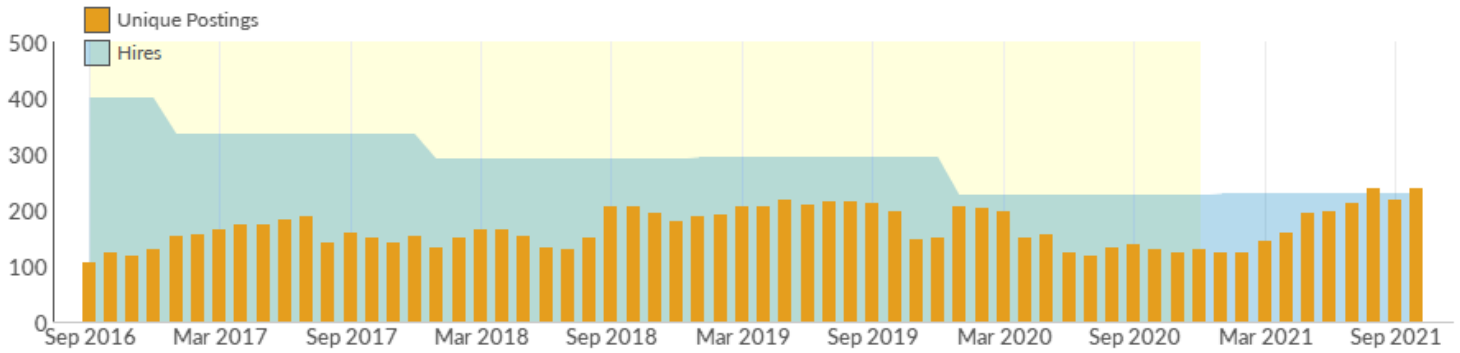
164

Avg. Monthly Postings (Sep 2016 - Dec 2020)

295











Avg. Monthly Hires (Sep 2016 - Dec 2020)

In an average month, there were 164 active job postings for 3 Occupations, and 295 actually hired. This means there were approximately 2 hires for 3 Occupations for every 1 unique job posting.













Occupation	Avg Monthly Postings (Sep 2016 - Dec 2020)	Avg Monthly Hires (Sep 2016 - Dec 2020)
Audio and Video Technicians	138	173
Music Directors and Composers	23	91
Sound Engineering Technicians	3	31

Top Companies Posting

Company	Total/Unique (Sep 2016 - Dec 2020)	Posting Intensity	Median Posting Duration
The Archdiocese of Saint Paul and Minneapolis	104 / 82	1 : 1 	34 days
Psav	288 / 62	5 : 1 	37 days
AVI Systems	102 / 38	3 : 1 	31 days
Lawrence Livermore National Laboratory	132 / 37	4 : 1 	21 days
Freeman	115 / 34	3 : 1 	41 days
AVI-Spl, Inc.	129 / 33	4 : 1 	54 days
Lake Mystic Hotel Casino	130 / 29	4 : 1 	49 days
United States Department of the Army	35 / 28	1 : 1 	141 days
University of Nebraska	66 / 28	2 : 1 	36 days
Skc, Inc.	68 / 26	3 : 1 	103 days

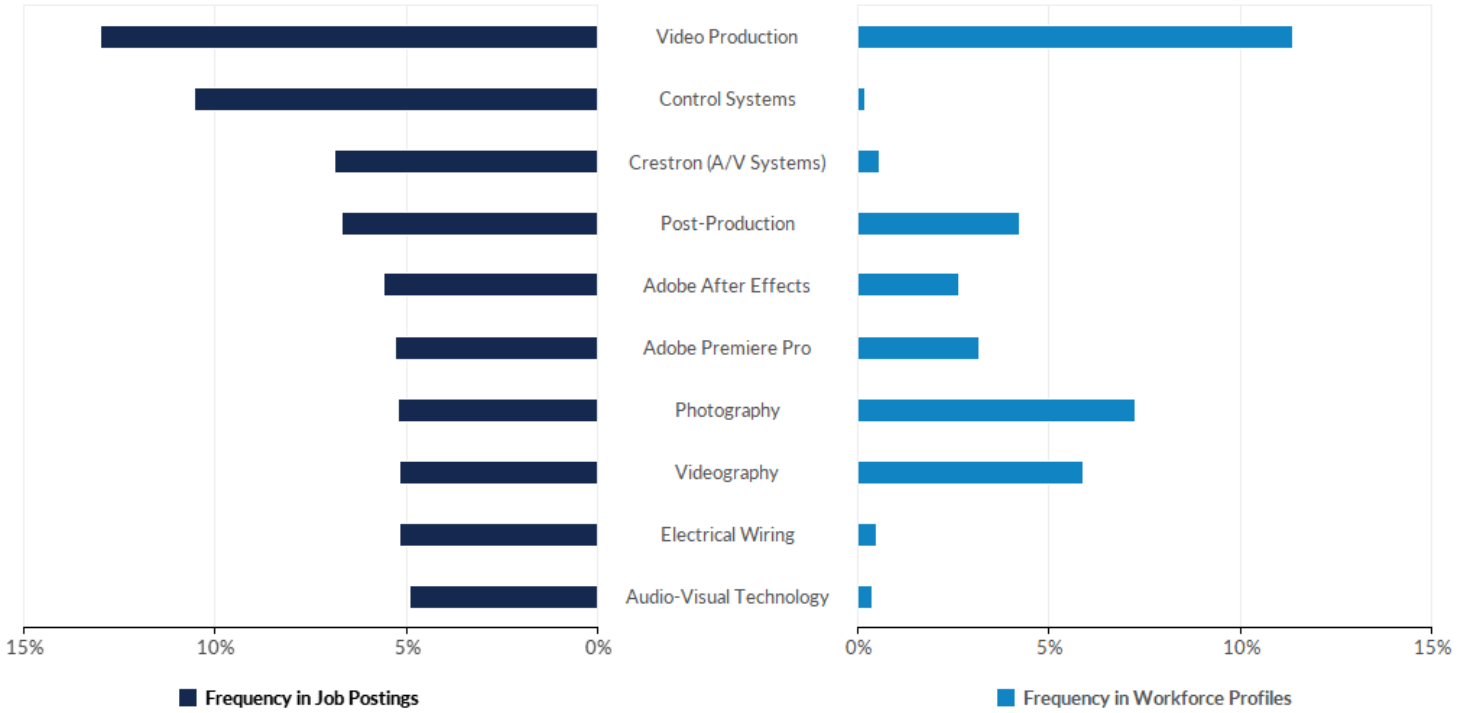
Top Posted Job Titles

Job Title	Total/Unique (Sep 2016 - Dec 2020)	Posting Intensity	Median Posting Duration
Audiovisual Technicians	1,550 / 439	4 : 1 	32 days
Videographers	441 / 166	3 : 1 	27 days
Audio Visual Managers	310 / 90	3 : 1 	35 days
Audiovisual Specialists	330 / 79	4 : 1 	34 days
Lighting Technicians	160 / 71	2 : 1 	37 days
Installation Technicians	213 / 68	3 : 1 	44 days
Video Production Specialists	187 / 53	4 : 1 	28 days
Production Specialists	174 / 52	3 : 1 	21 days
Choir Directors	99 / 50	2 : 1 	20 days
Directors of Music Arts	69 / 45	2 : 1 	46 days

The following provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumés and profiles. All resumés and profiles used in these comparisons have been updated within the last three years.

*The skills associated with workforce profiles represent workers of all education and experience levels.

Top Hard Skills

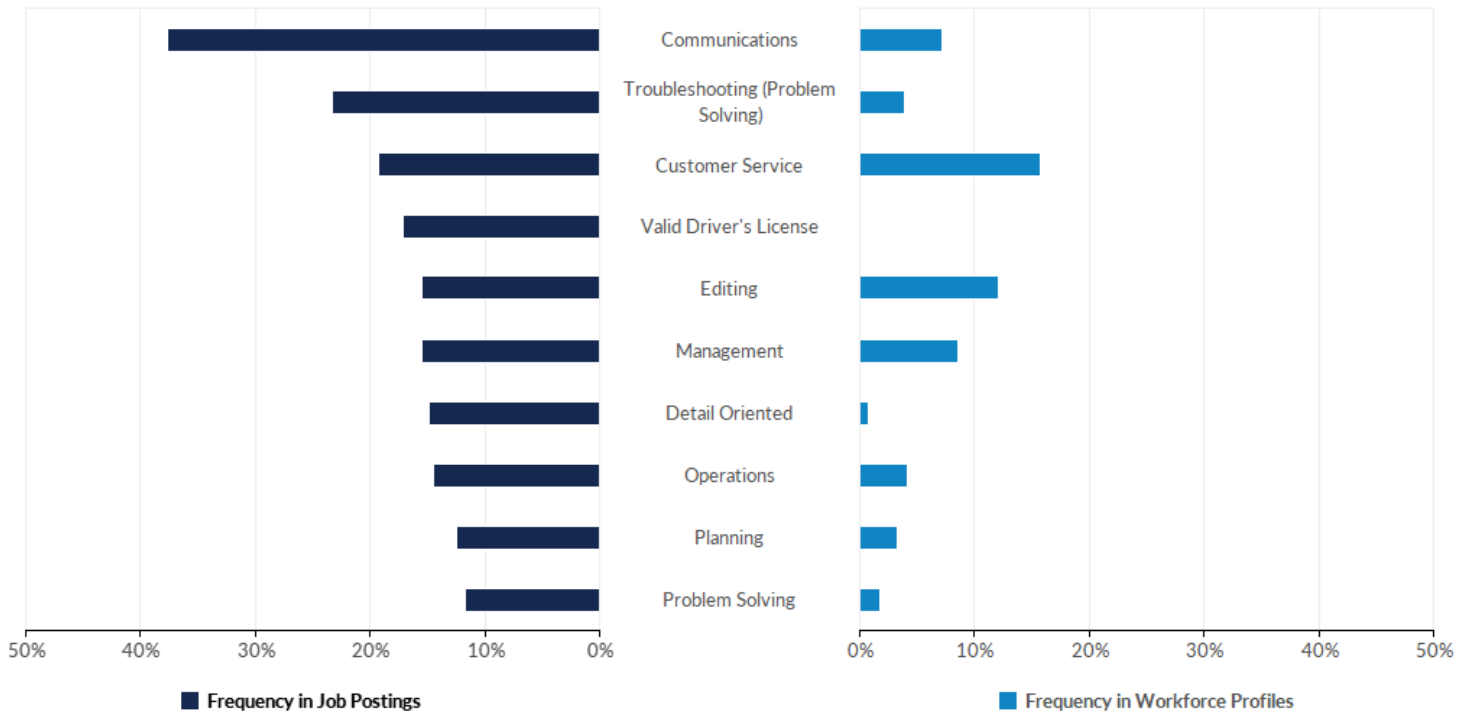


Top Hard Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Dec 2020)	Frequency in Profiles	Profiles with Skill / Total Profiles (2019 - 2021)
Video Production	13%	390 / 2,998	11%	385 / 3,385
Control Systems	11%	316 / 2,998	0%	6 / 3,385
Crestron (A/V Systems)	7%	206 / 2,998	1%	19 / 3,385
Post-Production	7%	200 / 2,998	4%	143 / 3,385
Adobe After Effects	6%	168 / 2,998	3%	89 / 3,385
Adobe Premiere Pro	5%	159 / 2,998	3%	107 / 3,385
Photography	5%	156 / 2,998	7%	246 / 3,385
Videography	5%	155 / 2,998	6%	199 / 3,385

Electrical Wiring	5%	155 / 2,998	0%	16 / 3,385
Audio-Visual Technology	5%	147 / 2,998	0%	13 / 3,385

Top Common Skills



Top Common Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Dec 2020)	Frequency in Profiles	Profiles with Skill / Total Profiles (2019 - 2021)
Communications	38%	1,129 / 2,998	7%	242 / 3,385
Troubleshooting (Problem Solving)	23%	698 / 2,998	4%	132 / 3,385
Customer Service	19%	576 / 2,998	16%	531 / 3,385
Valid Driver's License	17%	512 / 2,998	0%	0 / 3,385
Editing	15%	464 / 2,998	12%	408 / 3,385
Management	15%	463 / 2,998	9%	292 / 3,385
Detail Oriented	15%	445 / 2,998	1%	24 / 3,385
Operations	15%	435 / 2,998	4%	140 / 3,385
Planning	12%	374 / 2,998	3%	111 / 3,385
Problem Solving	12%	350 / 2,998	2%	60 / 3,385

Top Qualifications

Qualification	Postings with Qualification
AVIXA Certified Technology Specialist	194
Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)	109
Security Clearance	96
Top Secret Clearance	76
Secret Clearance	39
IAT Level II Certification	24
CompTIA Security+	19
Commercial Driver's License (CDL)	16
Cisco Certified Network Associate	15
Microsoft Certified Professional	10

Appendix A - Data Sources and Calculations

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates are also affected by county-level Emsi earnings by industry.

Emsi Job Postings

Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills, and geography.

State Data Sources

This report uses state data from the following agencies: Iowa Workforce Development; Minnesota Department of Employment and Economic Development; Nebraska Department of Labor, NEworks; South Dakota Department of Labor and Regulation