KY COUNCIL ON POSTSECONDARY EDUCATION
ACADEMIC & STRATEGIC INITIATIVES COMMITTEE

May 20, 2020 - 2:00 PM
ZOOM teleconferencing for Committee members
Livestream video for public: https://youtu.be/wIdzx444Stc

I. Welcome & Roll Call

II. Approval of the Minutes

III. Proposed New Academic Programs for Review & Recommendation (Action Item)

A. Western Kentucky University
   1. Environmental, Sustainability, and Geographic Studies (B.S.) CIP Code 03.0103
   2. Film Production (B.F.A.) CIP Code 50.0602

B. University of Louisville
   1. Business Administration (B.A.) CIP Code 52.0101
   2. Materials and Energy Science and Engineering (M.S.) CIP Code 14.1801

C. Murray State University
   1. Respiratory Therapy (B.S) CIP Code 51.0908
   2. General Studies (B.S.) CIP Code 24.0199

IV. Agency Updates

A. CARES Act Funding
B. Guidelines for Reopening Campuses for In-Person Instruction
C. Academic and Student Success Initiatives
D. Research Agenda

V. Other Business and Adjournment
Next meeting: August 18, 2020 @ 10:00 a.m. ET

DRAFT MINUTES
Council on Postsecondary Education

Type:	Academic & Strategic Initiatives Committee Meeting
Date:	March 25, 2020
Time:	10:00 a.m. ET
Location:	Virtual Meeting - Committee members by ZOOM, Public viewing hosted on CPE YouTube Page

CALL TO ORDER

The Academic & Strategic Initiatives Committee met Wednesday, March 25, 2020, at 10:00 a.m., ET. Pursuant to Executive Order 2020-243 and a memorandum issued by the Finance and Administration Cabinet dated March 16, 2020, and in an effort to prevent the spread of Novel Coronavirus (COVID-19), the Committee met utilizing a video teleconference. Members of the public were invited to view the meeting virtually on the CPE YouTube page: https://youtu.be/Ysh3vVBtJKU. Committee Chair Lori Harper presided.

ATTENDENCE

Members in attendance: Ben Brandstetter, Lori Harper, Grant Minix, Vidya Ravichandran, and Robert Staat.

Members not in attendance: Lucas Mentzer and Sherrill Zimmerman

Heather Faesy, CPE's senior associate for Board Relations, served as recorder of the meeting minutes.

APPROVAL OF THE MINUTES

The minutes of the January 9, 2020 meeting were approved as distributed.

UPDATE FROM THE PRESIDENT

CPE President Aaron Thompson provided an update on the campus's plans and actions thus far in relation to the COVID-19 pandemic. He also discussed how the pandemic is impacting the 2020 legislative session and how campuses are responding quickly to move all classes online so courses can continue through the end of the spring semester.

PROPOSED NEW ACADEMIC PROGRAMS FOR REVIEW & RECOMMENDATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions. Council staff reviewed the following proposed programs and recommended approval by the board.

Eastern Kentucky University

1) Master of Social Work (MSW) CIP Code 44.0701
   The Master of Social Work (MSW) Program builds on a generalist foundation to prepare students to be advanced generalist social workers, and teaches students to integrate social work theory, practice, and research as well as draw from interdisciplinary perspectives to support the well-being of individuals, groups, families, organizations, and communities. The program is 30 credit hours for the Advanced Standing Program and 60 credit hours for the Regular Program.

MOTION: Dr. Staat moved the Committee approve the Master of Social Work at Eastern Kentucky University, and recommend approval by the Council at its April 24, 2020 meeting. Mr. Minix seconded the motion.

VOTE: The motion passed.

Northern Kentucky University

2) Cybersecurity (B.S.) CIP Code 11.1003
   The Bachelor of Science in Cybersecurity is a 120 credit hour undergraduate degree program that would expand on NKU's existing curricular strengths as a DHS/NSA Center of Academic Excellence (CAE) in Cyber Defense Education. The new program would build upon existing cybersecurity courses, and meet the rapidly growing field and unfilled job positions in the region.

MOTION: Mr. Minix moved the Committee approve the Bachelor of Science in Cybersecurity at Northern Kentucky University, and recommend approval by the Council at its April 24, 2020 meeting. Dr. Staat seconded the motion.

VOTE: The motion passed.

University of Kentucky

3) Biomedical Engineering (BS) CIP Code 14.0501
The Bachelor of Science in Biomedical Engineering is a 128 credit hour undergraduate degree program designed for students who aspire to engineer novel treatments, devices, materials, technologies, or processes to improve human healthcare. Students seeking careers in industry, the healthcare professions, government agencies, or graduate studies in BME are candidates for this program.

4) Computer Engineering (MS) CIP Code 14.0901
The Master of Science in Computer Engineering provides an advanced degree in the area of Computer Engineering, and will further enhance the College's ability to pursue its "Top 50" vision of being internationally recognized and ranked as one of the top 50 colleges of engineering in the United States. There are two options available: Plan A Thesis Option (24 hours of coursework plus a 6-credit thesis) and a Plan B Non-Thesis Option (30 hours of coursework which may include a 3-credit project).

5) Computer Engineering (PhD) CIP Code 14.0901
The proposed 36 credit hour program will support the College of Engineering's mission and enhance the College's ability to pursue its "Top 50" vision of being internationally recognized and ranked as one of the top 50 colleges of engineering in the United States. It will provide advanced training in the areas of computer hardware and software engineering needed to support continued regional and national workforce demands.

6) Product Design (BS) CIP Code 50.0404
The Bachelor of Science in Product Design is a 125 credit hour undergraduate degree program that offers an undergraduate degree to students pursuing professional careers in product design, which is a strategic problem-solving process that drives innovation, builds business success, and leads to a better quality of life through innovative products, systems, services, and experiences.

7) Supply Chain Engineering (MS) CIP Code 14.3501
The Master of Science in Supply Chain Engineering has a 30 credit hour requirement and is targeted at teaching students the multi-disciplinary knowledge and skills necessary to design, evaluate, and improve transformational and logistical functions in supply chains. It is a non-thesis degree that ends with a capstone industry project that will allow multi-disciplinary teams of students from the engineering and management colleges to work

collaboratively on solving real-world supply chain problems proposed by industry partners.

8) Supply Chain Management (MS) – CIP Code 52.1399
The Master of Science in Supply Chain Management has a 30 credit hour requirement and will equip students with the multi-disciplinary knowledge and skills required for careers related to operations and supply chain management. It will include a summer capstone Industry Project course, where students will work on an industrial project at a sponsoring company under the supervision of faculty from both Gatton and the College of Engineering.

9) Teacher Preparation Program in Visual Impairments (MS) CIP Code 13.1009
The Teacher Preparation Program in Visual Impairments is designed to train Teachers of the Visually Impaired (TVIs) to work with children from preschool through graduation who are blind and visually impaired, including those with and without additional disabilities. The TVI program is 33 credit hours and uses a hybrid model with synchronous classes offered via Zoom, face-to-face weekends, and intensive summer courses held at University of Kentucky and Kentucky School for the Blind (KSB) in Louisville.

10) Orientation and Mobility (MA) CIP Code 13.1009
The Master of Arts in Orientation and Mobility is a 30 credit hour graduate degree program that will address the orientation and mobility needs of children with blindness and visual impairments, individuals with complex needs, and adults with vision loss. The program will use a hybrid model with synchronous classes offered via Zoom, face-to-face weekends, and intensive summer courses held at University of Kentucky and Kentucky School for the Blind.

Upon request by the Council members, CPE and UK staff stated that while it was unusual that a university submit eight new programs at one time, they were proposed after conducting a campus-wide needs analysis and met a workplace need as well as student demand. Additionally, per Council policy, if the pandemic crises delays the institution's plans to implement the new programs, they will have up to five years to do so before going through the program approval process again.

MOTION: Dr. Staat moved the Committee approve all proposed programs at the University of Kentucky, and recommend approval by the Council at its April 24, 2020 meeting. Mr. Minix seconded the motion.

VOTE: The motion passed.

ENGINEERING IN KENTUCKY: A SECTOR ANALYSIS OF LABOR MARKET INFORMATION AND PROGRAM DEMAND

Presenters: David Mahan, CPE's Associate Vice President for Data, Research and Advanced Analytics
Anna Brown, Economist and Vice President of Higher Education Consulting, Emsi

Dr. Mahan and Dr. Brown presented the preliminary findings from a partnered study with Emsi that gained insight into economic conditions and workforce trends in the engineering sector. The study provided an overview of engineering occupations and industries through traditional labor market information and a job postings analysis, conducted a program demand gap analysis of Kentucky institutions' engineering program offerings, and analyzed migration patterns and other qualitative characteristics that help explain why Kentucky engineering alumni stay in or migrate out of the state. Emsi also provided an environmental scan of the state's economy to provide context for the engineering sector. The final report is set to release in late April, early May.

ADJOURNMENT

The Academic & Strategic Initiatives Committee adjourned at 11:45 a.m., ET.

MINUTES REVIEWED AND APPROVED BY THE COMMITTEE: _____

TITLE: Proposed New Academic Programs for Review & Recommendation

RECOMMENDATION: Staff recommends the Committee accept the proposed New Academic Programs from Western Kentucky University and the University of Louisville and recommend approval of each to the full Council at its June 19, 2020 meeting.

PRESENTER: Melissa Bell, CPE's Vice President of Academic Affairs and Student Success

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions. Council staff has reviewed the proposed programs and recommends approval by the board.

PROGRAMS PROPOSED FOR APPROVAL

Western Kentucky University

1. Environmental, Sustainability, and Geographic Studies (B.S.) CIP Code 03.0103
2. Film Production (B.F.A.) CIP Code 50.0602

University of Louisville

1. Business Administration (B.A.) CIP Code 52.0101
2. Materials and Energy Science and Engineering (M.S.) CIP Code 14.1801

Murray State University

1. Respiratory Therapy (B.S) CIP Code 51.0908
2. General Studies (B.S.) CIP Code 24.0199

Proposed summaries for each program are attached and provide detailed information on the following elements:

- Overview - Program description, CIP code, credit hours, institutional governing board approval date, and expected implementation date
- Market Demand – Justification of need and employer demand
- Unnecessary duplication justification
- Expected revenues and expenditures associated with implementation

PROPOSED PROGRAM SUMMARY

Instituion: Western Kentucky University
Program Name: Environmental, Sustainability, and Geographic Studies
Degree Designation: BACHELOR OF SCIENCE (BS)
Degree Level : Baccalaureate

Program Description

The Environmental, Sustainability, and Geographic Studies program focuses on environment-related issues using scientific, technological, and humanistic approaches to generate a systems-thinking mindset. Includes foundational instruction in the basic principles of environmental science and related subjects, such as economics, cultural geography, environmental planning, pollution control, natural resources management, spatial data analysis, and the general interactions of humans and nature. Technical course work encompasses scientific writing, quantitative skills and data analysis, applied field- and lab-based experience, and geospatial analysis. Professional development courses involve field and laboratory training (including study abroad) and applying sustainability principles to the built and natural environments. The program provides students with the option of attaining a certificate in Geographic Information Systems. This certificate is relevant for a variety of disciplines that require the mapping and analysis of geographic, demographic, and/or environmental data. Students who complete the certificate will have a solid foundation that spans the collection, management, analysis, automation, and display of data using GIS and remote sensing technologies. The program prepares students for careers in the environmental and sustainability job sectors and in the geospatial technology work force, as well as for graduate school.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

This program is proposed as part of the WKU comprehensive program review wherein it was suggested from within the Department of Geography and Geology, as supported by the institution, to transform its majors in Geography and Environmental Studies and GIS into a single merged major that will better enhance student training, follow market trends, capitalize on faculty expertise and research, and streamline the current majors in various concentrations within the degrees undergoing transformation.

CIP Code: 03.0103
Credit Hours: 120
Institutional Board Approval Date: 5/31/2020
Implementation Date: 8/1/2020

Student Demand

Year 1 - 80
Year 2 - 94
Year 3 - 110

Year 4 - 137
Year 5 - 158

Market Demand

This program is proposed as part of the WKU comprehensive program review wherein it was suggested from within the Department of Geography and Geology, as supported by the institution, to transform its majors in Geography and Environmental Studies and GIS into a single merged major that will better enhance student training, follow market trends, capitalize on faculty expertise and research, and streamline the current majors in various concentrations within the degrees undergoing transformation. Not only will this make advising and programming more efficient for majors, it will also provide them with a degree that integrates the skills and topics that are cutting edge and relevant to today's workforce demands. The program provides the broad and interdisciplinary interests needed to meet the rapidly growing student demand for this degree (nearly an 80% increase in majors in the environmental studies concentration and highest number of students pursuing a certificate in our GIS program within our Department since Fall 2018). The growth in these areas and demonstrated student demand, as indicated through chosen concentration in the current major and course enrollment, are driving the focus of this merger to meet the growing student need.

The unique combination of the proposed disciplines makes this degree program highly attractive and unlike others offered in the state or at other benchmark institutions, which will be an advantage in marketing it to meet the types of jobs and various sectors of growth in Kentucky and beyond in this area, as described below. Specifically, this program not only emphasizes human-environmental interaction through environmental science and human geography pedagogy, and promotes long-term systems thinking through the principles of sustainability, it also integrates GIS technology training, which is one of the fastest growing, in-demand skills across nearly every sector of the economy from manufacturing and distribution to urban planning and national park management, among others. This combination of skillsets and disciplinary coursework also makes the major unique among KY higher education programs.

Currently, the type of degree needed to be competitive requires more interdisciplinary training. This is based on surveys of recent job listings, alumni surveys, and market trends, all of which clearly demonstrate that having skills in both the human and physical aspects of environmental issues, along with the ability to collect and analyze spatial data, are necessary in order to gain employment as employers place increasing demand on individuals working in complex, globalized built and natural environments. Students attending WKU indicate an interest in this program and need for the integrated disciplines; a survey of over 200 students (both majors and non-majors) in 2018-19 in multiple lower-level courses within the Department, indicated 33% of respondents would pursue this degree program if offered and over 50% indicated they would take coursework within the major. Overall, nationally, there is strong focus on environmentally friendly and sustainable practices in the public sector and for almost all industries in the private sector. Businesses across the country, as well as federal, local, and state governments, have made significant investments toward becoming more environmentally responsible and better global citizens. That investment is a continuing trend because of heightened public interest in the hazards facing the environment, as well as increasing demands placed on the environment by population growth, climate change, water resource demand, cultural and paradigm shifts, and improvements in technology and development. Environmental and sustainability issues are relevant to public concerns about hazards that impact humanity (climate change, natural impacts

such as volcanoes, flooding, and severe weather). The public is also concerned about exploitation, management, and protection of natural resources. The current and future workforce, by necessity, will need to remediate and ultimately be responsible for managing both natural and built environments and their resources, as well as determine how to balance human need/use with the functions of natural systems. Addressing these environmental issues is a cornerstone of the current and future job markets and this program's focus for training students.

According to the Bureau of Labor Statistics (2017), 35% of all jobs now require a Bachelor's degree. Though level of education is important, program of study and major matter more, as does alignment of curriculum with workforce requirements and job projections (Carnevale and Cheah 2018). Science, Technology, Engineering and Mathematics (STEM) jobs play a significant role in the growth and stability of the U.S. economy and STEM occupations were projected to grow by 8.9 percent between 2014 to 2024 (Noonan 2017). Market demand in the environmental sector was projected to grow 8% between 2018 through 2028 (Occupational Outlook Handbook 2019). There is strong projected growth of jobs in the field of geospatial technology, which include industry/business GIS-related jobs. The U.S. Department of Labor Employment and Training Administration (DOLETA) projects an annual growth rate of approximately 35 percent for the entirety of the geospatial technology industry, with reliable public sector revenue accounting for approximately one third of the industry's total annual receipts. P&S Market Research estimates a compound annual growth rate of 11 percent from 2015 to 2020 for the global GIS market.

The number of jobs for sustainability and environmental management doubled both from 1995-2003 and from 2003-2008; since then, it has seen the fastest increase thus far, with companies like Apple, UnderArmour, Nike, Walmart, and others hiring for these positions and creating company cultures centered on sustainable, environmentally-conscious, and globalized business models. Based on data from O*NET, sustainability specialist is considered a new and emerging "Bright Outlook" occupation projected to have 100,000 or more job openings between 2016 and 2026. Sustainability specialists are responsible for addressing organizational sustainability issues, such as waste-stream management, green building practices, and green procurement plans, and made a median salary of $69,040 in 2016. Jobs in renewable energy are expected to see growth over 96% by 2026 according to the U.S. Bureau of Labor Statistics, with most related sustainability fields following close behind. The estimated overall total of jobs in the environmental and geospatial technology sector as of 2018 is 317,300. The combined projected growth in these fields was 7.3% between 2018 to 2028. This translates to incredibly high market demand for the program we are proposing given its cross-training potential to best prepare students for these evolving and growing careers.

Employment Demand

	Regional	State	National
Type Of Job	**Cartographers and Photogrammetrists**		
Avg. Wage	$0	$54,652	$64,430
# Jobs (Postings)	0	12	118
Expected Growth	0%	9%	15%

Type Of Job	**Conservation Scientists**		
Avg. Wage	$0	$61,761	$61,340
# Jobs (Postings)	0	5	328
Expected Growth	0%	10%	3%
Type Of Job	**Environmental Engineering Technicians**		
Avg. Wage	$0	$74,885	$87,620
# Jobs (Postings)	0	7	553
Expected Growth	0%	9%	5%
Type Of Job	**Environmental Science and Protection Technicians, Including Health**		
Avg. Wage	$0	$45,862	$46,170
# Jobs (Postings)	0	13	347
Expected Growth	0%	9%	9%
Type Of Job	**Environmental Scientists**		
Avg. Wage	$0	$51,654	$71,130
# Jobs (Postings)	0	5	849
Expected Growth	0%	10%	8%
Type Of Job	**Forest and Conservation Technicians**		
Avg. Wage	$0	$37,620	$37,180
# Jobs (Postings)	0	1	6
Expected Growth	0%	3%	1%
Type Of Job	**Geographers/Social Scientists**		
Avg. Wage	$0	$65,994	$80,300
# Jobs (Postings)	0	3	14
Expected Growth	0%	3%	3%
Type Of Job	**Surveying and Mapping Technicians**		
Avg. Wage	$0	$74,885	$44,380
# Jobs (Postings)	0	7	567
Expected Growth	0%	9%	5%
Type Of Job	**Urban and Regional Planners**		

Avg. Wage	$0	$57,255	$73,050
# Jobs (Postings)	0	12	390
Expected Growth	0%	9%	11%

Indicate source of market demand information

U.S. Bureau of Labor Statistics 2018

Carnevale, A., Cheah, B., 2018, Five Rules of College and the Career Game, https://cew.georgetown.edu/cew-reports/5rules/#full-report

The Economics Daily, 2017, Bureau of Labor Statistics https://www.bls.gov/opub/ted/2017/37-percent-of-may-2017-employment-in-occupations-typically-requiring-postsecondary-education.htm

Noonan, R., 2017, STEM Jobs: 2017 Update. ESA Issue Brief #02-17, https://eric.ed.gov/?id=ED594354

Occupational Outlook Handbook, Bureau of Labor Statisticshttps://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm#tab-6, accessed November 22, 2019.

Prescient and Strategic Intelligence, 2019, https://www.psmarketresearch.com/press-release/global-geographic-information-system-market

US Department of Employment and training, October 2019, https://www.usgovernmentmanual.gov/Agency.aspx?EntityId=6i9RokK0J8E=&ParentEId=AkOVVMg8LS8=&EType=/sbLHImeIYk=&AspxAutoDetectCookieSupport=1

Academic Demand

In addition to preparing students to immediately enter the job market, given the high demand for B.S. level graduates as described above, the Environmental, Sustainability and Geographic Studies major provides excellent preparation for graduate school. The increasing growth in related majors across the state and nationally, as well as the increase in student awareness of environmental issues, demonstrates that the demand for this type of program is at its highest ever. The undergraduate core courses supply students with a solid background in environmental sciences, environmental sustainability, proficiency in geoscience writing, expertise in spatial analytical technologies, competence in basic statistical analyses, and hands-on field- and laboratory-based applied research experiences. This coursework provides a preparatory background for students taking the Graduate Record Exam. Students graduating from the program will have the requisite background to enter a broad number of graduate programs in environmental science, environmental law and policy, geospatial analysis, geosciences, and related fields.

Unneccessary Duplication

Similar Program(s):

Program Id	Inst code	Inst Description	Degree Designation	Program Title	Report year
1418	00196300	Eastern Kentucky University	BS	Environmental Studies	2015
9594	00198900	University of Kentucky	BA	Environmental and Sustainability Studies	2013

Comparison of Objectives/Focus/Curriculum to Similar Programs:
Institution: University of Kentucky (UK)
Program Name: Environmental and Sustainability Studies B.A.

Comparison of Objectives/Focus/Curriculum to Similar Programs:
This program currently has around 90 majors in it. A major difference between this program and the Environmental, Sustainability, and Geographic Studies major proposed herein is that UK's degree is a relatively new B.A. whereas our program is designed as a B.S. degree. Additionally, since this proposed major represents a merger of existing programs that have been well-established at WKU since 1907, our major will allow for the integration of coursework that expands beyond the social aspects of environmental studies covered in the UK B.A. program. It will also include scientific data collection and analysis, geospatial technologies, and physical systems-based approaches to examining, remediating, and preventing human impacts on the environment.

As a B.S. degree, WKU's program will entail a more in-depth curriculum with suites of foundational, technical, and professional courses to ensure students are prepared for a wide range of jobs, including those requiring a science-based approach. Study abroad, field-based, and technology-intensive courses are integrated into this program and, thus, set it apart from any similar programs at other state institutions given its unique combination of disciplines, which provide the most complete and relevant set of skills for the intended future pathways of any similar majors.

Institution: Eastern Kentucky University (EKU)
Program Name: Environmental Studies B.S. (CIP 03.0103)

The Environmental Studies program at EKU is housed in the Department of Biological Sciences and offers a much broader and more generalized program related to the environment with a focus on biological sciences, wherein students must also take courses across multiple departments to meet degree requirements. Our program, by comparison, is designed to be more focused in the geosciences and integrates geospatial analysis (GIS) and sustainability concepts, which are completely separate and intensive aspects that provide students with a richer experience related to the human-environmental systems interaction and data-driven management aspects of these fields. The curricula have minimal overlap in course themes between the two programs and our B.S. is designed to be custom tailored to students seeking more interdisciplinary training outside of just the physical and biological sciences in order to be marketable for a broader range of jobs.

Institution: University of Louisville (UofL)
Program Name: Sustainability B.A. (CIP: 30.3301)

This program currently has around 70 majors in it and, similar to UK's degree, is a relatively new B.A., whereas our program is designed as a B.S. degree and integrates coursework that includes scientific data collection and analysis, geospatial technologies, and systems-based approaches to human impacts on the environment based on merging existing programs that we have well-established at WKU to recruit students. The UL program focuses primarily on sustainability pedagogy, whereas sustainability is but one of the pedagogical fields covered in major.

Institution: Murray State
Program Name: B.S. in Earth and Environmental Sciences

The number of majors in this degree program is unknown. Although this program also leads to a B.S. degree, students in this major identify distinct tracks with coursework focused on that track area. Environmental Science and Geography and GIS are two separate tracks at Murray State, whereas our program will require students to take courses in each of these areas (similar to at Murray), but then will have the opportunity to take 26 hours of custom-designed elective coursework that best meets their interest and future academic and professional goals within any of those areas. Although both the WKU and Murray State programs are diverse in their coursework, the environmental field is, after all, diverse at its core. The custom-design aspect of the WKU program helps distinguish it from other environmentally-related programs in the state.

Institution: Northern Kentucky University
Program Name: B.S. or B.A. in Environmental Sciences (CIP: 03.0104)

Similar to the program at EKU, the NKU B.S. program focuses heavily on courses in biological sciences, geological sciences, and physics, while the B.A. program focuses heavily on social and cultural courses. Our proposed program will offer a much broader and more generalized program related to the environment. Students will complete coursework that will cover both physical and cultural aspects of the environment and geosciences, while also integrating geospatial analysis (GIS) and sustainability concepts. The number of majors in the NKU degree program is unknown. The interdisciplinary and custom-design aspect of our program is unique from any other environmentally related program in the state.

Comparison of Student Populations:
Institution: University of Kentucky (UK)
Program Name: Environmental and Sustainability Studies B.A.

In addition to serving students from a broad region, nationally and internationally, WKU has traditionally played a special role in serving many students from the western half of Kentucky and central Tennessee, with growing recruitment in Indiana and other parts of the region. That traditional student base, along with an emphasis on applied- and technology-based learning sets the proposed program apart from existing programs at Eastern Kentucky University, the University of Kentucky, and the University of Louisville.

Institution: Eastern Kentucky University (EKU)
Program Name: Environmental Studies B.S. (CIP 03.0103)

The student populations in between these two programs would be similar on some

aspect given both are regional, comprehensive teaching institutions; however, within the program, the EKU student population seeking this degree would be coming from Biology backgrounds and likely with different pathways in mind, given our program is more rooted in the geosciences and would draw from engineering, public health, geology, meteorology, and other related disciplines as students discovered and pursued this major.

Institution: University of Louisville (UofL)
Program Name: Sustainability B.A. (CIP: 30.3301)

In addition to serving students from a broad region, nationally and internationally, WKU has traditionally played a special role in serving many students from the western half of Kentucky and central Tennessee, with growing recruitment in Indiana and other parts of the region. That traditional student base, along with an emphasis on applied- and technology-based learning sets the proposed program apart from existing programs at Eastern Kentucky University, the University of Kentucky, and the University of Louisville.

Institution: Murray State
Program Name: B.S. in Earth and Environmental Sciences

In addition to serving students from a broad region, nationally and internationally, WKU has traditionally played a special role in serving many students from the western half of Kentucky and central Tennessee, with growing recruitment in Indiana and other parts of the region.

Institution: Northern Kentucky University
Program Name: B.S. or B.A. in Environmental Sciences (CIP: 03.0104)

In addition to serving students from a broad region, nationally and internationally, WKU has traditionally played a special role in serving many students from the western half of Kentucky and central Tennessee, with growing recruitment in Indiana and other parts of the region. There is a very large geographic distance between NKU and WKU, serving different student populations, so the two schools are not commonly considered competitors for one another.

Access to Existing Programs:
Institution: University of Kentucky (UK)
Program Name: Environmental and Sustainability Studies B.A.

The proposed program is a merger of the existing programs of Geography and Environmental studies and Geographic Information Science offered at WKU. Courses are taught primarily in face-to-face settings (classroom, field, and lab) on the WKU main campus.

Institution: Eastern Kentucky University (EKU)
Program Name: Environmental Studies B.S. (CIP 03.0103)

The proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU. Courses are taught primarily in face-to-face settings (classroom, field, and lab) on the WKU main campus.

Institution: University of Louisville (UofL)

Program Name: Sustainability B.A. (CIP: 30.3301)

The proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU. Courses are taught primarily in face-to-face settings (classroom, field, and lab) on the WKU main campus.

Institution: Murray State
Program Name: B.S. in Earth and Environmental Sciences
The proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU. Courses are taught primarily in face-to-face settings (classroom, field, and lab) on the WKU main campus. The programs at Murray State and WKU have historically coexisted and served effectively different populations. With the projected growth in the sectors covered by the degree programs, there is no reason to believe that the programs can't continue to serve students in the western Kentucky region.

Institution: Northern Kentucky University
Program Name: B.S. or B.A. in Environmental Sciences (CIP: 03.0104)

The proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU. Courses are taught primarily in face-to-face settings (classroom, field, and lab) on the WKU main campus.

Feedback from Other Institutions:
Murray State University has reviewed an earlier version of this NOI and has provided constructive feedback reflected in the narrative above.

Cost

Projected Revenue over Next Five Years ($) : 2858540
Projected Expenses over Next Five Years ($) : 1101395

Will Additional faculty be needed? Yes

Not currently. Since this is a merger of existing programs already supported within the Department of Geography and Geology and Ogden College of Science and Engineering at WKU, the goal of this new program is to continue to utilize existing faculty resources. As the program grows, it is expected that new faculty will be hired primarily through staffing initiatives within the WKU College of Science and Engineering.

Provide a budgetary rationale for creating this new program

Given that this is a merger of two existing programs, there are no pertinent budget impacts; however, the budgetary rational for creating this new program is to promote efficiencies and effectiveness of instructor resources within the Department of Geography and Geology at WKU and Ogden College. By combining disciplines and faculty within this new major, we are able to offer a stronger degree, a wider variety of focused courses drawing from an existing faculty pool, and handle a large increase in the number of majors using the existing size of the Department and its resources, which will maximize tuition generation and minimize salary expenditure. The new program is expected to be highly attractive to students and will reach students beyond the traditional service area of WKU. The program

COVID-19 Question: WKU – Environmental, Sustainability, and Geographic Studies Proposal

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program?

Response from WKU:
The faculty of the ESGS program do not anticipate any undo challenges implementing the proposed program because of COVID-19. The introductory courses new majors will complete in their first semester have been offered online during past winter and summer terms. As such, we are well-equipped to offer the courses needed by new majors through an online format that adheres to social distancing guidelines. Since students will be able to take these courses both in the classroom and online, new majors will be able to stay on track with their course sequencing in the major and continue on the path to a timely program completion. We do anticipate an indirect implication of COVID-19 being that of temporarily hindered recruitment into the new program. Recruiting opportunities will continue to be minimal throughout the summer and enrollment is anticipated to be lower than normal in the fall term due to fears associated with COVID-19. As such, we do not feel any recruitment obstacles would be a reflection of the program itself but would instead be a reflection of potential broader trends across academia in the fall. We anticipate being able to achieve or exceed our proposed recruitment numbers in future terms. Despite COVID-19, we will actively seek to recruit new majors into the program for the fall term through every opportunity and outlet we have available during this challenging time.

Course Title (CIP)

Degree Program Core Courses (i.e., Courses required by ALL students in the Major--includes Premajor or Preprofessional courses)

Course Prefix	Course #	Course Title	Course Description	Type of Course: program core (C) or pre-major/ pre-professional (P)	Credit Hours	Existing (E) or New (N) Course
GEOG or GEOL or METR	103 or 111 or 121	Our Dynamic Planet	Introduction to the spatial dimension of Earth's dynamic systems and how they affect people. These include the atmosphere, hydrosphere, and lithosphere. The study of Earth including rocks, mineral resources, energy, soils, surface geologic processes, earthquakes and Earth's interior, global tectonics, hydrology, and environmental geology. An introduction to the elements of the atmosphere, severe storms, atmospheric environmental issues, the interdependence between human life and the atmosphere, and rudimentary forecasting of basic weather	C	3	E
GEOG	110	World Regional Geography	A general survey of the political, social, and ecological systems of the world. The course is concerned with the complexity and diversity of world peoples and cultures.	C	3	E
GEOG	280	Intro to Environmental Science and Sustainability	A general understanding of how the environment functions, the complexity of human-environmental interactions, and the application of geoscience in solving environmental problems. Lab component provides practical experiences associated with the theories outlined in the course content	C	4	E
GEOG	380 or 480	Global Sustainability or Sustainable Cities	An introduction to the major themes and scientific principles of sustainability, with an emphasis on developing critical thinking skills. This course explores the evolution and consequences of urban development and the essentials of sustainable urbanism. The environmental, geographical, and human costs of urbanization will be examined, with an emphasis on the impacts of urbanization on populations, landscapes, mobility, resource consumption, and urban response to sustainability issues and climate change.	C	3	E
GISC	316	Fundamentals of GIS	Fundamentals of GIS data management and cartographic design. Topics include data organization, map projections, scale and accuracy. Hands-on work in geospatial data acquisition, base map development, and map production.	C	4	E
GISC	317	Geographic Information Systems	The principles, concepts, and applications of GIS. Topics include raster and vector data models, GIS data sources, data acquisition, storage, management, structured query language, relational databases, GIS analysis, and display.	C	4	E
GEOG	391	Spatial Data Analysis	Statistical concepts and methods emphasizing their applications in a spatial context. Statistical description and hypothesis testing. Visualization analysis of spatial patterns and relationships. Note: Special permission of instructor may be required.	C	4	E
GEOG	300	Writing in the Geosciences	Students conduct investigations into writing, reading, and research conventions in the geosciences and receive advanced instruction in planning, drafting, arranging, revising, and editing geoscience-specific essays and research projects.	C	3	E
GEOG	499	Professional Preparation	Professional career or graduate school preparation, resume writing, college-to-career transition, professional ethics, graduate school application and requirements, written senior assessment, and selected seminar topics. Outside speakers from industry and academia will be included.	C	1	E
GEOG	452 or 495 or 475	Applied Geoscience Field Experiences (Study Abroad) Research Practicum or Internship Specialty Course	Applied geoscience experiences in a variety of field-based settings, including, but not limited to, Study Abroad programs, field camps, and extended fieldtrips to national/intern. settings. Supervised research or internship with faculty, government, community, or private concerns. This number is reserved for one-time offer specialty courses in the program.	C	3	E
*any GEOG, GISC, METR, or GEOL 200 400 level course with advisor approval. Up to six hours may be taken outside of the geoscience discipline with advisor approval.		Multiple course titles options available.	Multiple course titles options available.	C	21	E
			Total Credit hours Required for Program Core (i.e., # of hours in degree program core) **Note: number recorded will automatically populate Core Hours in "Summary of Total Program Hours" table**		**53**	**NA**

Core Courses Required for Track(s), Concentration(s), or Speciality(s) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
Total Credit hours Required for Program Options (Track(s), Concentration(s), or Speciality) (if applicable) **Note: number recorded will automatically populate Program Option hours in "Summary of Total Program Hours" table**					**0**	**NA**

GUIDED Elective Courses (i.e., Specified list of Program Electives AND/OR Electives focused on a specific track/concentration/or speciality) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
# of REQUIRED Credit hours in Guided Electives (i.e., electives for a focused or track/concentration/speciality are). If 9 hours is required and there are 15 hours to choose from, then only 9 hours are required) Note: number recorded will automatically populate Guided Elective hours in "Summary of Total Program Hours" table						21

FREE Elective Courses (i.e, general program electives, open to the students to choose) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
Total # of Credit Hours in Free Electives (i.e., general program electives) (if applicable) Note: number recorded will automatically populate Free Elective Hours in "Summary of Total Program Hours" table					0	NA

Summary of Total Program Hours			
	Required Core Hours (i.e., # of hours in degree program core)	53	NA
	Required Program Options - Track/Concentration/Specialty Hours (if applicable)	0	NA
	Guided Elective Hours (e.g., focused or track/concentration/speciality area specific electives) (if applicable)	0	NA
	Free Elective Hours (i.e., general program electives) (if applicable)	0	NA
	Total # of credit hours required for Program	53	NA
Information to be completed by PIE Office			
	# of new courses		NA
	Total # of Courses (includes new and existing)		NA
	Precentage of new courses (more than 25% may require SACS Substantive Change)	#VALUE!	NA

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Full Proposal - Basic Info

Institution :	Western Kentucky University
Program Type :	Single Institution
Program Name :	Environmental, Sustainability, and Geographic Studies
Degree Level :	Baccalaureate
Degree Designation :	BACHELOR OF SCIENCE
CIP Code (2-Digit) :	03-NATURAL RESOURCES AND CONSERVATION.
CIP Code :	03.0103-Environmental Studies.

Academic Unit (e.g. Department, Division, School) :	Ogden College of Science and Engineering
Name of Academic Unit :	Department of Geography and Geology
Name of Program Director :	Dr. Fred Siewers

Intended Date of Implementation :	8/1/2020
Anticipated Date for Granting First Degrees :	5/1/2022
Date of Governing Board Approval :	5/15/2020

Institutional Contact Information

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Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

In combining the existing programs of Geography and Environmental Studies and Geographic Information Systems (GIS) into a holistic, multidisciplinary program, the overall program goal is to not only meet the evolving interests of students entering the fields of sustainability, environmental management, and geospatial analysis, but also the needs of employers in this field who are ever-increasingly seeking employees with the diverse set of experiences our program can provide. The specific objectives of the proposed program are to ensure that students can:

• Master core concepts and methods from the environmental, sustainability, and geographic sciences and apply them in solving social, economic, and resource problems;
• Master core concepts and methods from urban, political, and technical analysis as they pertain to the design and evaluation of policies and institutions that shape the daily lives of Kentuckians;
• Appreciate the ethical, cross-cultural, and historical context of environmental, sustainability, and geographic issues and the critical links between humans and their natural systems;
• Understand the broader spatial character of human-environment problems and ways of addressing them, including interactions across local to global scales;
• Apply systems concepts and methodologies to analyze and understand interactions between humans and the natural environment, and to sustain healthy interactions between humans and the natural and built environment;
• Reflect critically about student roles and identities as citizens, consumers, and environmental actors in a complex, interconnected world;
• Develop skills to communicate environmental, sustainability, and geographic concepts, risks, and approaches to protect and manage natural resources within a humanistic context.
• Demonstrate proficiency in the quantitative methods, qualitative analysis, spatial analysis, critical thinking, and written and oral communication needed to conduct high-level work as interdisciplinary environmental, sustainability, and geographic scholars and/or practitioners.

Overall, the proposed program in Environmental, Sustainability, and Geographic Studies is designed to meet the momentous realities of environmental change and the need for sustainable development by empowering students to solve emerging challenges with an integrative, geospatial- and science-based approach that acknowledges linkages between global human-environment systems. Environmental Sustainability, and Geographic Studies provide critical lenses for understanding – across the human-environment interface, across space, and at multiple scales – that foster comprehensive, ethical, and lasting change.

2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The mission of WKU is “to prepare students of all backgrounds to be productive, engaged, and socially responsible citizen-leaders of a global society. The University provides research, service and lifelong learning opportunities for its students, faculty, and other constituents. WKU enriches the quality of life for those within its reach.” Productive citizens have the ability to adapt to a changing world and often rise to become leaders in their communities. Processes of globalization, reflected by technological innovation and cultural diffusion, are drivers of rapid change in the structure of society. At the same time, issues of sustainability challenge society from the local to the global scale to keep pace with resource utilization and management. Now, more than at any time, an informed geographic perspective is an asset in society. Further, there is a growing need for people with knowledge and technical skills to analyze and understand the massive volume of geospatial and environmental data that are being collected each day to support decision-making in both the public and private sectors. The B.S. in Environmental, Sustainability, and Geographic Studies program is focused specifically on providing students with an educational experience that meets their needs and those of society. The curriculum in the new merged program will evolve to emphasize substantive issues regarding the environment, sustainability, globalization, cultural awareness, and place-based learning, while expanding opportunities and expectations for students to acquire technical skills involving the

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analysis and interpretation of geospatial and environmental data via applied field- and lab-based experiences.

The subdisciplines of sustainability and environmental studies are concerned with understanding the complexities of human-environment interactions through applied learning and a holistic approach, similar to geography and its global approach. The Environmental, Sustainability, and Geographic Studies program aims to be the region's outstanding geoenvironmental program by incorporating geographic information skills as a tool to assist our students in decision-making processes in the Kentucky workforce and beyond. It aims to produce exceptional undergraduates through engagement in critical-thinking and meaningful problem-solving using a systems-based approach. There are many opportunities for students in the program to get out of the classroom and aid in solving real-world problems through involvement in field research, internships, and applied learning activities. This program will incorporate meaningful research and community engagement in its courses and in the overall program.

The proposed program complements other majors in the Department (Meteorology and Geology), as well as the Master's program (through the Joint Undergraduate-Masters Program or JUMP) via common core courses and strong interdisciplinary training, creating synergies that enhance both the student experience and retention. Because of the interdisciplinary nature of the program, and the high demand for the applied skills taught through its coursework, students from multiple colleges and departments (such as education, agriculture, political science, criminology, journalism, history, social studies, engineering, and biology, etc.) participate in our program courses. Additionally, since every education major at WKU must take a Geography of Kentucky or History of Kentucky course to complete the degree, approximately 100 elementary education majors annually are able to graduate WKU because of our program coursework.

The Kentucky Council on Postsecondary Education lists the following priorities in its strategic agenda for 2016-2021:
• Encourage more people to take advantage of postsecondary opportunities
• Increase degree and certificate completion, fill workforce shortages, and guide more graduates to a career path
• Create economic growth and development and make our state more prosperous.

Priority 1: Encourage more people to take advantage of postsecondary opportunities.
The B.S. in Environmental, Sustainability, and Geographic Studies attracts students due to the ubiquity of media coverage and the national conversation about climate change and other environmental issues. The rapid global exchange of information makes students aware of the environmental impacts that past human decisions have had on our current and future lives. Incoming students are aware that a career in environmental studies and sustainability is important to solving the societal problems and we expand on this interest through the utilization of applied, real-world examples for coursework. Enrollments in the existing Geography and Environmental Studies program and the Geographic Information Systems certificate have increased over the past two years (see table below).

Degrees Awarded and Current Students Enrolled in the two Merging Programs
Degrees Awarded AY15-16 AY16-17 AY17-18 AY18-19 AY19-20
GIS Certificate* 14 8 13 8 7
B.S. Degree GEO* 16 16 15 21 9

Enrolled August 15th AY15-16 AY16-17 AY17-18 AY18-19 AY19-20
GIS Certificate enrolled 10 11 12 16 24
GEO Majors** 57 58 51 49 74
* B.S. Geography and Environmental Studies plus B.S. in GIS. Degrees awarded in AY19-20 only include those in Fall 2019.
** Majors in B.S. Geography and Environmental Studies plus B.S. in GIS, after accounting for degrees awarded, as of August 15th each academic year.

WKU data from the Division of Enrollment and Student Experiences reveal that majority of students who do not come to WKU after being admitted, do not end up going to any University. This indicates that recruitment efforts must be geared not just at informing students about programs options, but rather showing the value and importance of a postsecondary degree in geoenvironmental studies. To address this, through alternative workload assignments, we intend to have selective faculty visit local schools to meet with guidance counsels and students and describe why a postsecondary degree is important in this particular field. We will also draft informational flyers which demonstrate the number of jobs availabl

the field with a correlation to the number of jobs that also require a post-secondary degree. A post-secondary degree is critical for not only entering a job in this field, but also for upper career mobility, and we intend to make every effort to communicate this to potential incoming students. To aid retention efforts, students new to the program will also hear first-hand accounts from employers in our university experience course to reinforce the need a post-secondary degree. Employers and recent graduates will be invited to speak in classes to share similar messages and help students make critical networking connections. The program will also maintain active social media pages, some with sponsored ads to improve visibility, to show unique experiences our students are receiving and how those experiences relate to successful future careers.

Priority 2: Increase degree and certificate completion, fill workforce shortages, and guide more graduates to a career path. WKU has been vigorously promoting retention over the past few years. The Department of Geography and Geology and the Ogden College of Science and Engineering each has a recruitment and retention committee. Graduating students fill workforce shortages in the state, such as positions requiring GIS expertise (see section C for data on job availability and placement). First, the customized nature of the new program meets better evolving needs of students and ever-changing market demands. Since the geoenvironmental sector is very broad in scope, the major does not include pre-defined and narrow concentrations. Instead, the program will allow students to complete a customized set of elective coursework that best prepares them for a graduate program or any one of the wide ranging careers in the environmental field that they find of most interest. We believe if students are able to build a program that they feel meets their specific career and academic goals, they will more likely complete the degree and will be able to establish a clear career path from the onset of their collegiate career. In addition, this proposed program structure, enhances student-faculty interactions and engagement in all stages of student advising, especially in early advising, which should enhance student recruitment and retention.

The curriculum in the new program includes many examples of high-impact learning practices such as internships, community service projects, field and laboratory hands-on experiences, collaborative assignments & research, and capstone projects, which not only provide students with many opportunities to apply what they learn to solving real-world problems, but also facilitate further student-faculty and student-future employer engagement. The new program trains and helps students prepare and maintain ePortfolios as part of students' coursework. Additionally, the new program will require a Professional Preparation course (GEOG 499), which will guide students though their career path by preparing resumes, transforming skills gained through coursework to applicable workforce job qualities, honing interview skills, and guiding students through job searches that should result in a rewarding career. Even the new title of the program will allow students to better market the unique set of skills they will acquire by completing this degree program to employers after graduation.

Priority 3: Create economic growth and development and make our state more prosperous.
Students who graduate with the B.S. in Environmental, Sustainability, and Geographic Studies degree will take on jobs in public service and the private sector. These careers require innovation and integration of technology and software in job duties and performance demands, all of which are emphasized in this program, and will lead to our graduates the fields of environmental planning, sustainability coordination, and GIS and geospatial analysis. Specifically, the new program adopts a project-based learning model so students can apply what they learn in the classroom to solving real-world problems through high-impact learning practices. Job market data clearly indicate rapid expected growth in these fields, and our program's customization will allow us to prepare students with essential skills and practical problem-solving experiences and train students who should achieve desirable salaries, and create further growth in these sectors. As example, the US Army is currently offering $40,000 bonus for enlistees that would like to specialize in the content that we provide our students.
• Geospatial Intelligence Imagery Analyst (35G)
https://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/intelligence-and-combat-support/geospatial-intelligence-imagery-analyst.html
• Geospatial Engineer (12Y)
https://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/construction-engineering/geospatial-engineer.html

3. Explain how the proposed program addresses the state's postsecondary education strategic agenda.

The Kentucky Council on Postsecondary Education lists the following priorities in its strategic agenda for 2016-2021:

•Encourage more people to take advantage of postsecondary opportunities

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•Increase degree and certificate completion, fill workforce shortages, and guide more graduates to a career path
•Create economic growth and development and make our state more prosperous.

Priority 1: Encourage more people to take advantage of postsecondary opportunities.
The B.S. in Environmental, Sustainability, and Geographic Studies attracts students due to the ubiquity of media coverage and the national conversation about climate change and other environmental issues. The rapid global exchange of information makes students aware of the environmental impacts that past human decisions have had on our current and future lives. Incoming students are aware that a career in environmental studies and sustainability is important to solving the societal problems and we expand on this interest through the utilization of applied, real-world examples for coursework. Enrollments in the existing Geography and Environmental Studies program and the Geographic Information Systems certificate have increased over the past two years (see table below).

Degrees Awarded and Current Students Enrolled in the two Merging Programs

Degrees Awarded	AY15-16	AY16-17	AY17-18	AY18-19	AY19-20
GIS Certificate*	14	8	13	8	7
B.S. Degree GEO*	16	16	15	21	9

Enrolled August 15th	AY15-16	AY16-17	AY17-18	AY18-19	AY19-20
GIS Certificate enrolled	10	11	12	16	24
GEO Majors**	57	58	51	49	74

* B.S. Geography and Environmental Studies plus B.S. in GIS. Degrees awarded in AY19-20 only include those in Fall 2019.
** Majors in B.S. Geography and Environmental Studies plus B.S. in GIS, after accounting for degrees awarded, as of August 15th each academic year.

WKU data from the Division of Enrollment and Student Experiences reveal that majority of students who do not come to WKU after being admitted, do not end up going to any University. This indicates that recruitment efforts must be geared not just at informing students about programs options, but rather showing the value and importance of a postsecondary degree in geoenvironmental studies. To address this, through alternative workload assignments, we intend to have selective faculty visit local schools to meet with guidance counsels and students and describe why a postsecondary degree is important in this particular field. We will also draft informational flyers which demonstrate the number of jobs available in the field with a correlation to the number of jobs that also require a post-secondary degree. A post-secondary degree is critical for not only entering a job in this field, but also for upper career mobility, and we intend to make every effort to communicate this to potential incoming students. To aid retention efforts, students new to the program will also hear first-hand accounts from employers in our university experience course to reinforce the need a post-secondary degree. Employers and recent graduates will be invited to speak in classes to share similar messages and help students make critical networking connections. The program will also maintain active social media pages, some with sponsored ads to improve visibility, to show unique experiences our students are receiving and how those experiences relate to successful future careers.

Priority 2: Increase degree and certificate completion, fill workforce shortages, and guide more graduates to a career path.
WKU has been vigorously promoting retention over the past few years. The Department of Geography and Geology and the Ogden College of Science and Engineering each has a recruitment and retention committee. Graduating students fill workforce shortages in the state, such as positions requiring GIS expertise (see section C for data on job availability and placement). First, the customized nature of the new program meets better evolving needs of students and ever-changing market demands. Since the geoenvironmental sector is very broad in scope, the major does not include pre-defined and narrow concentrations. Instead, the program will allow students to complete a customized set of elective coursework that best prepares them for a graduate program or any one of the wide ranging careers in the environmental field that they find of most interest. We believe if students are able to build a program that they feel meets their specific career and academic goals, they will more likely complete the degree and will be able to establish a clear career path from the onset of their collegiate career. In addition, this proposed program structure, enhances student-faculty interactions and engagement in all stages of student advising, especially in early advising, which should enhance student recruitment and retention.

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The curriculum in the new program includes many examples of high-impact learning practices such as internships, community service projects, field and laboratory hands-on experiences, collaborative assignments & research, and capstone projects, which not only provide students with many opportunities to apply what they learn to solving real-world problems, but also facilitate further student-faculty and student-future employer engagement. The new program trains and helps students prepare and maintain ePortfolios as part of students' coursework. Additionally, the new program will require a Professional Preparation course (GEOG 499), which will guide students though their career path by preparing resumes, transforming skills gained through coursework to applicable workforce job qualities, honing interview skills, and guiding students through job searches that should result in a rewarding career. Even the new title of the program will allow students to better market the unique set of skills they will acquire by completing this degree program to employers after graduation.

Priority 3: Create economic growth and development and make our state more prosperous.
Students who graduate with the B.S. in Environmental, Sustainability, and Geographic Studies degree will take on jobs in public service and the private sector. These careers require innovation and integration of technology and software in job duties and performance demands, all of which are emphasized in this program, and will lead to our graduates the fields of environmental planning, sustainability coordination, and GIS and geospatial analysis. Specifically, the new program adopts a project-based learning model so students can apply what they learn in the classroom to solving real-world problems through high-impact learning practices. Job market data clearly indicate rapid expected growth in these fields, and our program's customization will allow us to prepare students with essential skills and practical problem-solving experiences and train students who should achieve desirable salaries, and create further growth in these sectors. As example, the US Army is currently offering $40,000 bonus for enlistees that would like to specialize in the content that we provide our students.

•Geospatial Intelligence Imagery Analyst (35G)
https://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/intelligence-and-combat-support/geospatial-intelligence-imagery-analyst.html

•Geospatial Engineer (12Y)
https://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/construction-engineering/geospatial-engineer.html

4. Explain how the proposed program furthers the statewide implementation plan.

This program is proposed as part of the WKU comprehensive program review (CAPE), wherein the institution supported the forward thinking of the Department of Geography and Geology to transform its majors in Geography and Environmental Studies and GIS into a merged, single major. The transformation better enhances student training, follows market trends, and capitalizes on faculty expertise and research. As such, this proposed program is maximizing the effectiveness of existing funding resources, rather than requiring addition investment. It is also adhering to the guidelines outlined as part of the campus strategic plan to review and maximize efficiencies and reduce duplication of program offerings at WKU.

The new program structure will support enrollment trends and lead to more degrees being conferred, improve academic quality of existing programs, and increase the success of underprepared stuents. Specifically, the new program in Environmental, Sustainability, and Geographic Studies (ESGS) will enhance student training, follow market trends, integrate high-impact learning practices, and capitalize on faculty expertise and research via student-faculty engagement. This will make advising and programming more efficient for majors and also provide them with a degree that integrates the skills and topics that are necessary and relevant to today's workforce demands. In combining the existing programs of Geography and Environmental Studies and Geographic Information Systems (GIS) into a holistic, multidisciplinary program, the overall program goal is to not only meet the evolving interests of students entering the fields of sustainability, environmental management, and geospatial analysis, but also the needs of employers in this field who are ever-increasingly seeking employees with the diverse set of experiences our program can provide. The curriculum in the new program includes many examples of high-impact learning practices such as internships, community service projects, field and laboratory hands-on experiences, collaborative assignments & research, and capstone projects, which not only provide students with many opportunities to apply what they learn to solving real-world problems, but also facilitate further student-faculty and student-future employer engagement. Even the new title of the program will allow students to better market the unique set of skills they will acquire by completing this degree program to employers after graduation.

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Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

The specifics of these broad learning outcomes for the Environmental, Sustainability, and Geographical Studies program can be divided into three broad categories and are aligned with Bloom's Taxonomy for learning outcomes which are also listed below and included in Section F.

Student Learning Outcomes – Foundational Required Courses (Define/Describe)
The foundational courses provide students with common intellectual experiences via integrative approaches so students can accumulate solid foundational knowledge and prepare them to effectively learn technical, analytical, and applied skills essential to job demands in the geoenvironmental sector. Students will demonstrate engagement with the fundamental principles of environment, sustainability, and human geography to develop discipline-specific knowledge and skills within the program of study. Students will learn how the concepts such as place, scale, region, and diffusion, which make up an environmental geographer's 'toolkit', can be used for identifying, mapping, and quantifiably analyzing environmental data and geospatial patterns of human and natural environments, as well as the interaction between the two. Students will be able to articulate the pillars of sustainability as they relate to the individual, community, and world.

1. Articulate basic environmental concepts, sustainability pillars, and geographical principles and convey an understanding of their value and importance to stakeholders and the public.

2. Compare and contrast circumstances from place-to-place and within different environmental conditions to recognize how actions and policies can predict outcomes.

Student Learning Outcomes – Technical Required Courses (Method)
The required technical and professional courses engage students with many hands-on high-impact learning opportunities, which not only provide students with many opportunities to gain and accumulate real-world experiences but also facilitate further student-faculty engagement. Students will demonstrate competence in written and visual communication through research and writing experiences in the program. Students will demonstrate how qualitative/quantitative measures can be used to assess, report, and design approaches that address sustainability challenges and opportunities. Students will be able to articulate the principles of the scientific method. Within a projects-based learning model, students will be able to apply geospatial and techniques in solving real-world problems, and provide quantifiable assessment of geospatial and environmental data, as well as demonstrate operational knowledge of GIS software and geospatial analytical techniques. Furthermore, professional courses guide students though their career path by updating ePortfolios, preparing resumes, transforming skills gained through coursework to applicable workforce job qualities, honing interview skills, and guiding students through job searches that should result in a rewarding career.

3. Execute fieldwork and/or research to collect data regarding socioenvironmental problems.

4. Analyze and communicate complex datasets by integrating human and environmental variables to contextualize broader patterns, trends, and relationships within a spatial, geographical, and environmental context using GIS and other sub-discipline specific techniques.

Student Learning Outcomes – Career Emphasis Courses (Electives) (Synthesize)
Students can explain the complexities of social, cultural, and environmental diversity, and demonstrate critical thinking and evidence-based argument skills related to diverse, complex, and nuanced real-world social, cultural, environmental, and sustainability problems in geospatial and socioenvironmental contexts in preparation for their specific professional career aspirations.

5. Gain competency in applied information processing skills and geospatial analytical techniques.
6. Recognize that contemporary challenges and problem-solving requires holistic research and reflection, using knowledge

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and technology.

In summary, with many high-impact learning opportunities in the new program, students who complete our program will be well-prepared to succeed in their chosen career paths and fully capable of applying their critical thinking skills and their technical and scientific expertise to effectively solve problems at the local, regional, and global scales. Our graduates will have the intellectual abilities and necessary scientific tools to describe, methodically analyze, and synthesize the complexities of social and environment diversity and will be well-equipped to meet emerging challenges and deploy new technologies. Students who earn their degree in Environmental, Sustainability, and Geographical Studies at WKU will have the confidence and knowledge to effect change and to enter the workforce with marketable technical and communication abilities.

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

The relationship between the proposed program curriculum and the program objectives to achieve the learning outcomes is shaped by the interdisciplinary nature of the coursework and linkages between foundational, technical, and advanced career emphasis elective courses. Metalevel program objectives are to train students in environmental, sustainability, and geographic concepts that can be applied in community, business, educational, and regulatory settings to help improve the social and economic quality of life of all Kentuckians and beyond. Program curriculum is designed to drive student learning outcomes to integrate program objectives at three levels: macro (program-level objectives/goals), meso (course-level outcomes), and micro (student- and employer- level outcomes).

The program's core curriculum achieves overall program objectives by preparing students to:
• Master foundational concepts and methods from the environmental, sustainability, and geographic sciences and apply them in solving social, economic, and resource problems (Either GEOG 103 or GEOL 111 or METR 121);
• Master foundational concepts and methods from urban, political, and technical analysis as they pertain to the design and evaluation of policies and institutions that shape the daily lives of Kentuckians in a global setting (GEOG 110 and GEOG 380);
• Demonstrate technical proficiency in quantitative methods, qualitative analysis, spatial analysis, critical thinking, and written and oral communication needed to conduct high-level work as interdisciplinary scholars and/or practitioners (GISC 316, GISC 317, GEOG 391);
• Understand the historical and scientific context of environmental concepts, sustainability, and the critical links between humans and their natural systems; be able to integrate the scientific method and the application of environmental science concepts to mitigating environmental problems (GEOG 280);
• Understand the broader spatial character of human-environment problems and ways of addressing them, as well as the pillars of sustainability, including interactions across local to global scales (GEOG 380 or GEOG 480);
• Apply systems concepts and methodologies to analyze and understand interactions between humans and the natural environment (either GEOG 452 or 475 or 495);
• Reflect critically about student roles and identities as citizens, consumers, and environmental actors in a complex, interconnected world (GEOG 300 and 499).

The elective courses (21 hours) available in the curriculum of the proposed program allow students to apply foundational skills to specific contexts relevant to their career goals. Guided by a custom-designed career pathway developed in coordination with the program advisor, students can select an integrated set of advanced courses that build on foundational skills and help them to apply their analytical, communication, and scientific reasoning skills to a variety of the social and economic challenges faced by Kentuckians. The customization nature of the new program meets better evolving needs of students and ever-changing market demands. It enhances student-faculty interactions and engagement in all stages of student advising, especially in early advising, which should enhance student recruitment and retention.

3. Highlight any distinctive qualities of this proposed program.

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The Environmental, Sustainability, and Geographic Studies program will focus on the integration of human-environmental systems through the application of technological, geospatial, and sustainable principles, to study built and natural environments through a local-to-global lens. This program would be the first and only one of its kind to provide students within the Commonwealth with the multidisciplinary training needed to tackle some of the most pressing geo-environmental issues facing society, both now and in the future. This training will be achieved through applied and integrative learning that draws upon the analytical, social, environmental, and technical skills found in this combination of complementary courses. Collectively, this degree will provide students with a distinctive and customized program to develop the broad range of skills required to be successful in the rapidly expanding field of environmental, sustainability, and geographical jobs. The program's quality derives from its curriculum design, which aims to produce graduates who can critically think from both local to global, spatial to temporal, and social to physical, in dealing with complex issues like sustainable development in environmentally stressed regions, resource management in culturally-sensitive landscapes, and human dimensions of climate change, among others. Students earning this degree will graduate with a skillset and applied experiences that prepare them to pursue careers at the forefront of socio-environmental problem solving, unlike any other program offered at benchmark institutions, given the carefully constructed, interdisciplinary approach of the curriculum to integrate geospatial technology, analytical writing, and a sustainable perspective on environmental issues.

The strength of this program comes in the diversity of faculty expertise and use of technology in the courses offered. The changes to the program, and the diversity of our faculty expertise, will allow greater flexibility for students to select elective courses that fit their interest and help better meet their future professional and academic goals. We are able to offer students applied experiences in the environmental science, sustainability, and geographic fields that they are unable to get elsewhere. Our private and public sector collaborators at international, national, and regional levels allow our faculty to bring real-world experiences into their course curriculum, as well as create opportunities for our students to participate in internship, research projects, and service-learning projects that we could otherwise not offer them. This proposed program will offer an unmatched worldview to our students through our comprehensive approach to studying human-environmental interactions.

4. Will this program replace any existing program(s) or specializations within an existing program?

YES

Please specify.

As part of the WKU comprehensive program review (CAPE) the Department of Geography and Geology, supported by the Institution, proposed to transform the program. The transformation involves merging the Geography and Environmental Studies and GIS programs into a single major that better enhances student training, follows market trends, capitalizes on faculty expertise and research, and streamlines concentrations of the existing program.

5. Include the projected faculty/student in major ratio.

10 FTE faculty (7 tenured + 3 instructors) = 1/6.5 majors projected year one;
1/7.25 faculty/student in the major projected year two; 1/9.0 faculty/student in the major projected year three.

6. Is there a specialized accrediting agency related to this program?

NO

7. Attach SACS Faculty Roster Form.

GEOG_SACSCOC_roster.pdf

8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

The WKU Library provides adequate support for instructional activities in the proposed program, including academic journals, books, visual aids, maps, and other appropriate material.

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B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

Classroom, laboratory, and office space is adequate for supporting a high quality program and has been doing so for decades through the unmerged programs.

All program faculty have individual offices, which are adequate for holding office hours, meeting with students and colleagues, and all instructional planning activities. The Environmental Science and Technology (EST) building on WKU's Bowling Green campus contains four instructional classrooms shared by programs in the Department of Geography and Geology and, for the most part, used exclusively by these programs. All classrooms have state-of-the-art computer/digital projector systems and document cameras, supporting a variety of teaching/learning modes. Classroom workspaces and seating are easily reconfigurable to support small group work in addition to more conventional classroom delivery modes.

Laboratory space in the Department of Geography and Geology includes:
•A dedicated GIS production facility in EST with 8 computer workstations, 4 production/teaching servers, a large-format printer, and 4 Trimble GPS units for field data collection.

•Two dedicated GIS instructional labs with a total of 40 computer workstations. Both labs have instructor computer/digital projector systems and provide access to a suite of software that enables high-quality training and education in GIS and geospatial technologies.

•Software available in the above GIS facilities through the ESRI University Site License includes ArcGIS Pro; ArcGIS Online; ArcGIS for Desktop (ArcInfo) with extensions, including Spatial Analyst, 3D Analyst, Network Analyst, and Geostatistical Analyst; ArcGIS for Server and Extensions; and ArcGIS Image Server. Other software available in the GIS labs includes ERDAS Imagine, Intergraph GoMedia Pro, programming languages (Python, VB, C++, Java), ArcPad, MS SQL Enterprise database & ArcSDE, Trimble Pathfinder Office for GPS, and S-Plus and SPSS statistical software.

•Students have broad access to GIS software outside these departmental facilities. Five general purpose student labs on WKU's main Bowling Green campus plus labs at satellite campuses in Elizabethtown, Ft. Knox, Glasgow, and Owensboro provide access to ArcGIS Desktop software, including all its extensions. Moreover, all students enrolled in a GISC class are given a one-year student license to the full suite of ArcGIS Desktop, downloadable to their own computer, effectively turning students' personal laptops into mobile GIS labs.

•A Cultural Geography research lab with dedicated computer, library of books, videos, and maps, and meeting space for collaborative projects.

•Labs under the Center for Human GeoEnvironmental Studies housed within the Department include three field and sample preparation labs with numerous scientific instruments for environmental sample analysis and equipment for hydrologic, geomorphologic, geologic, and environmental research, an outreach and education lab with mobile and stationary eye-tracking and digital visualization equipment, and a data analytics lab with software packages that include OriginPro, SigmaPlot, R, SPSS, Grapher, MatLab, and others.

•The introductory environmental studies course for majors and general education students meets in a regular classroom and moves to different spaces for the labs as needed, both in the department and around campus. For example, the biodiversity lab takes place outside of EST in areas all around campus.

9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

The program follows WKU admission standards; students need a 2.0 or better throughout the program. All students complete 120 total hours. In addition, in order to advance to higher-level GIS and technical courses, students must receive minimum "C" grades in low-level courses. To be rewarded with a WKU GIS Certificate, students must have minimum "C" grades in all certificate GIS courses.

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10. Clearly state the degree completion requirements for the program.

All students complete the custom-designed program developed for each student in consultation with the primary advisor – a total of 120 hours are required for the WKU degree. Students are required to meet with their program advisor each semester prior to registering to ensure adequate performance and progress is being made in the program. Students also work with the program advisor to identify elective coursework which will best prepare them for future academic and professional career goals. The program utilizes a centralized advising strategy wherein a single advisor advises each student in the program. This method ensures that students are getting the accurate and consistent information. It also allows for the electives that best suit the needs and specific interests of a current cohort of students to be identified and offered through the Department.

Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	120	53	0	0

12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

Not applicable directly through specific agreements, but transfer students from any related programs will be given every opportunity to transfer in courses that meet program requirements, which should work in their favor given the customized nature of the program.

13. List courses under the appropriate curricular headings.

wku_env_course_template.xlsx

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

YES	Distance learning
YES	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
YES	Technology-enhanced instruction
YES	Evening/weekend/early morning classes
YES	Accelerated courses
YES	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

(Should not be blank)

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

After reviewing data for each of these CIP codes, we feel our program is best encompassed under the new 2020 CIP code 30.4401 (Geography and Environmental Studies); however, we were unable to make this selection. Therefore, we have selected 03.0103. The description for this CIP code states: “A program that focuses on interactions between people and the natural and built environments. Includes instruction in climate science, sustainability, environmental science and policy, research methods, geographic information systems (GIS), human geography, physical geography, remote sensing, and public policy.” Our proposed program plans to focus on environment-related issues using scientific, technological, and humanistic approaches for the purpose of understanding the interactive nature and interdependence of environmental and human factors. The proposed program in Environmental, Sustainability, and Geographic Studies is designed to meet the momentous realities of environmental change and the need for sustainable development by empowering students to solve emerging challenges with an integrative, geospatial- and science-based approach that acknowledges linkages between global human-environment systems.

To collect evidence for the new program, we completed a review of Gray and Associates Data for a selection of old CIP codes related to the new program we are proposing. Investigated CIP codes included: 03.0101 Natural Resources/Conservation, General; 03.0103 Environmental Studies; 03.0104 Environmental Science; 03.0201 Natural Resources Management and Policy; 30.3301 Sustainability Studies; 40.0605 Hydrology and Water Resources Science; 45.0701 Geography; 45.0702 Geographic Information Science and Cartography. From this list, Environmental Science received the highest overall score, but this CIP code doesn’t encompass the holistic, multidisciplinary program we propose and other competitive physical environmental science courses exist in the region. Although individual CIP code scores are lower for the other codes we reviewed, in part due to the bifurcated nature of the environmental and geographic fields into different CIP datasets, a review of the existing Gray and Associates data for these individual CIP codes does reveal that there is a need and interest, collectively, in environmental and geographic related fields of studies. Data also suggest that student demand does exist both regionally and nationally for different sectors of the degree, that employment opportunities are available regionally and nationally, and that no one CIP code is universally fitted to the student demand and employment needs of students in this field.

Student demand for the merged major being proposed is reflected through survey input from students and from the increase in enrollment of students wishing to pursue an environment-related degree. During 2018-19, a survey of over 200 students (both majors and non-majors) in multiple lower-level courses offered within the Department of Geography and Geology, indicated 33% of respondents would pursue this degree program if offered and over 50% indicated they would take coursework within the major. The program provides the broad and interdisciplinary interests needed to meet the rapidly growing student demand for this degree. Since Fall 2018, the number of majors has doubled within the existing Geography and Environmental major, with the majority of the growth in the Environmental Studies concentration, as well as a significant increase in the number of students pursuing a GIS certificate in the Department’s GIS program. The growth in these areas and demonstrated student demand, as indicated through chosen concentration in the current major and course enrollment, are driving the focus of this merger to meet the growing student need.

Nationally, there is strong focus on sustainable practices in the public sector and for almost all industries in the private sector. Businesses across the country, as well as federal, local, and state governments, have made significant investments toward becoming more environmentally responsible and better global citizens. That investment is a continuing trend because of heightened public interest in the hazards facing the environment, as well as increasing demands placed on the environment by population growth, climate change, water-resource demand, cultural and paradigm shifts, and improvements in technology and development. Environmental and sustainability issues are relevant to public concerns about hazards that impact humanity (climate change, natural impacts such as volcanic eruptions, flooding, and severe weather). The current and future workforce, by necessity, will need to remediate and ultimately be responsible for managing both natural and built environments and their resources, as well as determine how to balance human need/use with the functions of natural systems. Addressing these environmental issues is a cornerstone of current and future job markets and this program’s focus for training students.

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The unique combination of the proposed disciplines makes this degree program highly attractive and unlike others offered in the state or at other benchmark institutions, which will be an advantage in marketing it to meet the types of jobs and various sectors of growth in Kentucky and beyond in this area, as described below. Specifically, this program not only emphasizes human-environmental interaction through environmental science and human geography pedagogy, and promotes long-term systems thinking through the principles of sustainability, it also integrates GIS technology training, which is one of the fastest growing, in-demand skills across multiple sectors of the economy from manufacturing and distribution to urban planning and national park management, among others. This combination of skillsets and disciplinary coursework also makes the major unique among Kentucky higher education programs. Thus, we put forth that our new combined program will be able to serve all of these student needs and interests rather than only meeting the separate needs of sustainability, physical environmental science, geography, or GIS interests, for example. This is particularly important since the separation between these fields is rapidly shrinking in today's globalized society, and graduates will thus need to be able to meet the breadth of interconnected employer needs related to the environmental, sustainability, and geographic fields.

Anticipated demand in number of majors in the new program is expected to be 15+% per year over the next five years, with the opportunity to grow much more as momentum for the program builds. Student demand for programs in environment and sustainability, and the growth of enrollment in the GIS certificate, is driving the focus of this merger to meet the growing student need.

Projected enrollment in the proposed transformed major
Year 1
(Fall 20/Sp 21) Year 2 Year 3 Year 4 Year 5
40 56 65 74 85
*enrollments in Year 1 reflect students new to major and an estimated portion of existing students in old majors who will likely switch to the new degree program. A 20% retention loss (average for WKU) is calculated into the estimates, though retention rates in our Department have traditionally been higher that the University average. Students graduating from the program are also calculated into the estimates. Students who transfer into the major (from undeclared AND from other majors) are also calculated into these projections. Students from other majors ARE NOT calculated into budget documentation submitted with this application since those students are not new revenue to WKU.

b. Identify the applicant pool and how they will be reached.

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The potential applicant pool consists of students at local and regional high schools, students attending WKU recruiting events, those attending majors fairs at WKU, WKU students who have not yet declared majors, and WKU students in Colonnade classes taught by faculty from the Environmental, Sustainability, and Geographic Studies program. Currently, the majority of majors are recruited from such ESGS Colonnade classes. Potential applicants will be reached through a variety of means, including formation of an ESGS recruitment committee that will oversee the following efforts:

•Staffed tables at recruiting events and majors fairs with attractive presentations about the program, and informational brochures and swag bearing department and program logos that potential majors may take home.
• Partnering with local and regional high school teachers to provide instructional programming that demonstrates applications of environmental science, sustainability, and geography. Partnering with the WKU Office of Sustainability, to incorporate messages about the degree program in their program provided to regional schools.

•Development of a short, but informational and entertaining “pitch” using PowerPoint, animated graphics, and music that explains what students can do with an ESGS major.

•Identification of all undeclared majors in ESGS Colonnade classes and a coordinated effort by the ESGS recruitment committee to have at least one faculty member meet with such students and talk with them about their goals and explore whether an ESGS major can help them meet those goals.

•Participation in all WKU recruiting activities as hosted/created by WKU Office of Admissions and through the Division of Enrollment and Student Experience.

•Maintain active social media accounts which highlight opportunities for internships and jobs in the discipline, as well feature success of current students in the program.

In addition, CPE data indicates that there is a STEM Gap in Kentucky, with women choosing to pursue undergraduate and graduate degrees in STEM disciplines at about half the rate of men (CPE 2019). The proposed program in Environmental, Sustainability, and Geographic Studies will help alleviate the gap through its proven strong appeal to female undergraduates at WKU. Over the past five years, while enrollment in the B.S. in Geography and Environment has almost doubled (see enrollment data table in section C1), the percentage of women among this number has risen from about 30% to 55%.

CPE, 2019, accessed Nov 2019. “Number of females earning STEM credentials in Kentucky increasing, but not at same rate as males,” https://cpe.ky.gov/_resources/images/weeklyinfographics/infographic-091219.jpg

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c. Describe the student recruitment and selection process.

Recruitment efforts aimed at potential majors are described in section (b) above. The selection process will consist of verifying that potential majors meet WKU enrollment criteria (if they are not current students), verifying that they are WKU students in good standing, or (in the case of academically troubled students) determining through a one-on-one meetings that a student's interests align with the ESGS program and the program might help them achieve academic and professional career success after graduation.

The ESGS program, in its current incarnation as Geography and Environmental Studies, has already proven itself as a welcoming and inclusive major for female students and underrepresented minorities in STEM disciplines. Not only does our major have a broad appeal for students across a diverse spectrum, regardless of gender, race, ethnicity, or sexual orientation, but also our course offerings include subject matter that directly engages students in exploring the challenges and opportunities in a multicultural and diverse world. The hundreds of WKU students who enroll in our classes each semester—whether for the ESGS major, as electives and/or to meet Colonnade requirements – engage with topics such as migration, identity, law, and human-environment interactions and explore their context and implications for population subgroups, as well as society as a whole. What sets our program apart is the unique nature of our discipline. We provide the link between the sciences and society. Our students engage in spatial critical thinking within the context of cultural diversity. They are afforded the opportunity to explore the human connections between STEM disciplines and the real-world applications and implications of these human-environment interrelationships in their careers and as members of the community at-large.

Our plan to recruit underrepresented minorities is based on a geographic analysis of the twenty-seven county "Market Area of Responsibility" as defined in the WKU "University-Wide Diversity, Equity, and Inclusion Plan." To focus our efforts and maximize our limited resources, we have identified seven counties within this region that have the highest levels of demographic diversity based on the percent of Asian, African American, and Latino populations. These seven counties are: Daviess, Hardin, Ohio, Russell, Simpson, Todd, and Warren. All seven rank among the top twenty counties in Kentucky in one of more minority category as defined by the US Census. We will engage in outreach and recruitment efforts in these targeted counties, with a particular emphasis on working with high school guidance counselors and the appropriate student organizations to promote the ESGS major. Our plan follows the diversity and inclusion guidelines set forth by the American Association of Geographers which include such strategies as developing a "Diversity and Inclusion Committee" in our department, reaching out to campus organizations such as the Intercultural Student Engagement Center (ISEC), and the Pride Center, as well as consulting with Dr. Molly Kerby, WKU's Chief Diversity Officer. In addition to our efforts at the department and discipline levels, representatives from the ESGS program will work closely with Dr. Stuart Burris, Associate Dean in Ogden College, whose responsibilities include the recruitment and retention of underrepresented minorities, as a mentor and partner in this process.

d. Identify the primary feeders for the program.

As discussed in part (b), the primary feeders for the ESGS program are local and regional high schools and Colonnade classes taught by program faculty.

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e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

The unique combination of the proposed disciplines makes this degree program highly attractive and distinct from others offered in the state or at other benchmark institutions, which will be an advantage in marketing it to meet the types of jobs and various sectors of growth in Kentucky and beyond in this area, as described below. In fact, even though the proposed ESGS program is not yet able to enroll students, at least 13 students have already stated their intention to declare the new ESGS major as soon as it is possible to do so. Although 10 of these students are existing WKU students, and thus do not directly speak to the question of increasing WKU's enrollment, they do suggest a pent-up demand for the new ESGS program. Moreover, this program not only emphasizes human-environmental interaction through environmental science and human geography pedagogy, and promotes long-term systems thinking through the principles of sustainability, it also integrates GIS technology training, which is one of the fastest growing, in-demand skills across multiple sectors of the economy from manufacturing and distribution to urban planning and national park management, among others.

Academic Year	Degrees Conferred	Majors (Headcount) – Fall Semester (all programs)
2016	16	65
2017	15	47
2018	21	41
2019	9	51
2020	14 (including S20)	69 (as of 12/31/2019)
2021	14 (anticipated)	78 (anticipated)
2022	18 (anticipated)	85 (anticipated)
2023	24 (anticipated)	96 (anticipated)
2024	30 (anticipated)	120 (anticipated)
2025	40 (anticipated)	150 (anticipated)

f. Project estimated student demand for the first five years of the program.

Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2020-2021	0	30
2021-2022	0	56
2022-2023	10	65
2023-2024	15	74
2024-2025	36	85

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2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

The number of jobs for sustainability and environmental management doubled both from 1995-2003 and from 2003-2008; since then, these fields have seen even faster growth, with companies like Apple, UnderArmour, Nike, Walmart, and others hiring positions in these areas and creating company cultures centered on sustainable, environmentally-conscious, and globalized business models (University of Wisconsin 2019). Market demand in the environmental sector is projected to grow 6-9% between 2018 through 2028 (Occupational Outlook Handbook 2019). Geospatial technology has strong projected job growth in business, industry, and the public sector. The U.S. Department of Labor, Employment, and Training Administration (DOLETA) projects an annual growth rate of approximately 35 percent for the entirety of the geospatial technology industry, with reliable public sector revenue accounting for approximately one third of the industry's total annual receipts. P&S Market Research estimates a compound annual growth rate of 11 percent from 2015 to 2020 for the global GIS market.

Based on data from O*NET, sustainability specialist is considered a new and emerging “Bright Outlook” occupation projected to have 100,000 or more job openings between 2016 and 2026 (University of Wisconsin 2019). Sustainability specialists are responsible for addressing organizational sustainability issues, such as waste-stream management, green building practices, and green procurement plans, and made a median salary of $69,040 in 2016. Jobs in renewable energy are expected to see growth over 96% by 2026 according to the U.S. Bureau of Labor Statistics, with most related sustainability fields following close behind.

The estimated overall total of jobs in the environmental and geospatial technology sector as of 2018 is 261,900. The combined projected growth in these fields was 7.3% between 2018 to 2028. This translates to incredibly high market demand for the program we are proposing given its cross-training potential to best prepare students for these evolving and growing careers.

Summary of job statistics for Environmental and Spatial Technologies sectors.

SOC Title	Employed in 2018	Change: 2018-2028	2018 Median Wage($)	%Change: 2018-2028
17-1021 Cartographers & Photogrammetrists	11,800	1,700	64,430	15
19-3051 Urban & Regional Planners	39,100	4,200	73,050	11
19-4091 Environmental Sci & Protection Techs	34,800	3,200	46,170	9
19-2041 Environmental Scientists & Spec.	85,000	7,000	71,130	8
17-3031 Surveying & Mapping Techs	56,800	3,100	44,380	5
19-1031 Conservation Scientists	32,900	1,000	61,340	3
19-3099 Geographers/Social Scientists	1,500	45	80,300	3

Estimated Overall Total Jobs for 2018 = 261,900
Estimated Overall Total Wages for 2018 = $23.5 billion
Based on data from: U.S. Bureau of Labor Statistics 2018

In addition to preparing students to enter the job market immediately, the Environmental, Sustainability and Geographic Studies major will provide excellent preparation for graduate school. The increasing growth in related majors across the state and nationally, as well as the increase in student awareness of environmental issues, demonstrates that the demand for this type of program is at its highest ever. The core courses supply students with a solid background in environmental sciences, environmental sustainability, proficiency in geoscience writing, expertise in spatial analytical technologies, competence in basic statistical analyses, hands-on field- and laboratory-based applied research experiences, and knowledge and skills critical for success in a variety of programs at the graduate level. Students graduating from the program will have the requisite background and essential analytical skills to enter a broad number of graduate programs in environmental science, environmental law and policy, geospatial analysis, geosciences, and related fields.

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3. Academic Disciplinary Needs:

Sustainability is considered to be a relatively new field; one that has been gaining traction for over a decade. The concept of sustainability was initially proposed by the World Commission on Environment and Development (WCED) (1987) and is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Today, sustainability is recognized globally as a key issue facing twenty-first century society and it is just as broadly understood that achieving sustainability requires multidisciplinary approaches, specifically environmental and geographic perspectives. In 2007, there were 32 sustainability science programs in US colleges and universities. That number has now increased to well over 100. WKU has its own Office of Sustainability and engages students from across the university who seek a home to pursue this as a an area of interest.

Though environmental and geographical studies and geospatial analysis are not new disciplines, they are all enhanced when combined into a multidisciplinary program. The addition of sustainability to the proposed new program’s multidisciplinary academic mix will provide students with the knowledge and training that will prepare them for careers of the future. This program is innovative and designed to meet the growing market demand for these types of careers, per the data shown in aforementioned tables, and will carve a unique niche in its interdisciplinary programmatic approach to serve students across Kentucky, WKU’s primary recruitment region.

There has been an increase in enrollment in GEOG 380 of both current Geography/Environmental Studies majors and nonmajors who take the course for general education credit. Additionally, in the 2019-2020 school year, there were 21 other majors represented among the 30 nonmajors enrolled. The data shows an increase in student interest, as well as how the course attracts students across disciplines.

Lastly, GEOG 210: Ecological and Environmental Policy is a course that is offered for majors in the existing Geography and Environmental Studies program. It is not a general education course. However, as you can see in the table the number of nonmajors and the number of other majors represented has increased along with the number of Geography/Environmental Studies and GIS majors. In the 2019-2020 school year there were 8 other majors represented among the 11 nonmajors enrolled in the course. Increased enrollment by nonmajors in a course for majors shows growing interest in the field, and adds to the evidence of the interdisciplinary aspects of the new degree program.

References:
Carnevale, A., Cheah, B., 2018. Five Rules of College and the Career Game, https://cew.georgetown.edu/cew-reports/5rules/#full-report

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a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

YES

Please identify similar programs in other SREB states and in the nation.

Western Kentucky University, through the Environmental, Sustainability, and Geographic Studies program, will offer the only undergraduate degree program in the region with an integrated specialization in environmental studies, sustainability science, human geography, and geospatial science in a single customizable degree program. There are similar programs with a specialization in individual subsets in those disciplines, but no program will equip students with them all; thus, our combined environmental studies, sustainability science, human geography, and GIS program will be distinctively different from the geography and/or environmental science or studies programs at other state-supported institutions. Additionally, since the proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU, other programs in Kentucky and those in surrounding states have historically coexisted with the WKU program and served geographically different populations. With the projected growth in the sectors covered by the degree programs, there is no reason to believe that the program proposed herein and other like programs across the state and surrounding southern regional states can't continue to serve students in the western Kentucky region.

In addition to combining content areas not combined in this manner elsewhere in the state, the major proposed herein applies a 'custom-design' strategy, which will allow majors to build a set of elective coursework to prepare them for their specific career goals within the very diverse environmental sector. As one example, students in our program at WKU have the opportunity to specialize in cave and karst tourism studies, which combines analytical skills with applied practices in the areas of human and environmental geography. To our knowledge, no other similar program in Kentucky or the region can make that claim. These qualities will make this WKU program unique in the educational opportunities extended to undergraduates in Kentucky. We will provide students with a highly specialized educational experience that is easily applied to real-word problem solving. Finally, through leveraged research center partnerships at WKU and the expertise of our faculty, our program will offer students study abroad experiences and opportunities in international partnerships (such as those with the Caribbean Community Climate Change Centre) that are not commonly comparable to any experiences offered through other Kentucky institutions.

b. Our records indicate the following similar programs exist at public institutions in Kentucky.

#Enr = Fall Enrollments , #Grd = Academic Year Graduates

		2019 - 20		2018 - 19		2017 - 18		2016 - 17		2015 - 16		2014 - 15	
Institution	Program	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd
Eastern Kentucky University	Environmental Studies			2	3	7	4	10	2	20	3	20	2
University of Kentucky	*Environmental and Sustainability Studies	64		64	25	54	17	58	16	57	13	43	2

c. Does the proposed program differ from existing programs?

YES

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Please explain.

Western Kentucky University, through the Environmental, Sustainability, and Geographic Studies program, will offer the only undergraduate degree program in the region with an integrated specialization in environmental sciences, sustainability science, human geography, and geospatial science in a single degree program. There are similar programs with a specialization in individual subsets in those disciplines, but no program will equip students with them all; thus, our combined environmental studies, sustainability science, human geography, and GIS program will be distinctively different from the geography and/or environmental science or studies programs at other state-supported institutions such as the University of Kentucky (UK), University of Louisville (UL), Eastern Kentucky University (EKU), Northern Kentucky University, and Murray State University. Additionally, since the proposed program is a merger of existing programs in geography and environmental studies and GIS taught at WKU, other programs in Kentucky and those at WKU have historically coexisted and served geographically different populations. With the projected growth in the sectors covered by the degree programs, there is no reason to believe that the program proposed herein and other like programs across the state can't continue to serve students in the western Kentucky region.

For example, since the program at UK is a relatively new B.A., and our program is designed as a B.S. degree, our major will allow for the integration of coursework that expands beyond the social aspects of environmental studies covered in the B.A. program at UK. The Environmental Studies program at EKU is housed in the Department of Biological Sciences and offers a more generalized program related to the environment with a focus on biological sciences, wherein students must also take courses across multiple departments to meet degree requirements. Our program, by comparison, is designed to be more focused in the environmental geosciences and integrates geospatial analysis (GIS) and sustainability concepts, which are completely separate and intensive aspects that provide students with a richer experience related to the human-environmental systems interaction and data-driven management aspects of these fields. The curricula have minimal overlap in course themes between the two programs and our B.S. is designed to be custom tailored to students seeking more interdisciplinary training outside of just the physical and biological sciences in order to be marketable for a broader range of jobs. The UL program focuses primarily on sustainability pedagogy, whereas sustainability is but one of the pedagogical fields covered in the proposed WKU major. Although the Murray State program also leads to a B.S. degree, students in this major identify distinct tracks with coursework focused on that track area. Environmental Science and Geography and GIS are two separate tracks at Murray State, whereas our program will require students to take courses in each of these areas (similar to at Murray), but then will have the opportunity to take 26 hours of custom-designed elective coursework that best meets their interest and future academic and professional goals within any of those areas. Lastly, NKU has a B.S. program that focuses heavily on the physical sciences (biology, geology, and physics) and a B.A. program that focuses heavily on social science and cultural courses. Students in our program will complete coursework that will cover both physical and cultural aspects of the environment and geosciences, while also integrating geospatial analysis (GIS) and sustainability concepts.

In addition to combining content areas not combined in this manner elsewhere in the state, the major proposed herein applies a 'custom-design' strategy, which will allow majors to build a set of elective coursework to prepare them for their specific career goals within the very diverse environmental sector. As one example, students in our program at WKU have the opportunity to specialize in cave and karst tourism studies, which combines analytical skills with applied practices in the areas of human and environmental geography. No other similar program in Kentucky can make that claim. These qualities will make this WKU program unique in the educational opportunities extended to undergraduates in Kentucky. We will provide students with a highly specialized educational experience that is easily applied to real-word problem solving. Finally, through leveraged research center partnerships at WKU and the expertise of our faculty, our program will offer students study abroad experiences and opportunities in international partnerships (such as those with the Caribbean Community Climate Change Centre) that are not comparable to any experiences offered through other Kentucky institutions. In summary, the program proposed herein will offer students a unique educational and professionalizing experience; we will provide students with a highly specialized educational program that is easily applied to real-word problem solving.

d. Does the proposed program serve a different student population (i.e., students in a different geographic area) from existing programs?

YES

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Please explain.

In addition to serving students from a broad region, nationally and internationally, WKU has traditionally played a special role in serving many students from the western half of Kentucky and central Tennessee. That traditional student base sets the proposed program apart from existing programs at Eastern Kentucky University, the University of Kentucky, and the University of Louisville. The student populations of the EKU and WKU programs would be similar in some aspects, given that both are regional, comprehensive teaching institutions; however, within the program, the EKU student population seeking this degree would be coming from biology backgrounds and likely with different pathways in mind, given that our program is more rooted in the geosciences and would draw from engineering, public health, geology, journalism, sociology, meteorology, and other related disciplines as students discover and pursue this major. There is a very large geographic distance between NKU and WKU, serving different student populations, so the two schools are not commonly considered competitors for one another.

CPE data indicates that there is a STEM Gap in Kentucky, with women choosing to pursue undergraduate and graduate degrees in STEM disciplines at about half the rate of men (CPE 2019). The proposed program in Environmental, Sustainability, and Geographic Studies will help alleviate the gap through its proven strong appeal to female undergraduates at WKU. Over the past five years, while enrollment in the B.S. in Geography and Environment has almost doubled (see enrollment data table in section C1), the percentage of women among this number has risen from about 30% to 55%.

Our plan to recruit underrepresented minorities is based on a geographic analysis of the twenty-seven county “Market Area of Responsibility” as defined in the WKU “University-Wide Diversity, Equity, and Inclusion Plan.” To focus our efforts and maximize our limited resources, we have identified seven counties within this region that have the highest levels of demographic diversity based on the percent of Asian, African American, and Latino populations. These seven counties are: Daviess, Hardin, Ohio, Russell, Simpson, Todd, and Warren. All seven rank among the top twenty counties in Kentucky in one of more minority category as defined by the US Census. We will engage in outreach and recruitment efforts in these targeted counties, with a particular emphasis on working with high school guidance counselors and the appropriate student organizations to promote the ESGS major. Our plan follows the diversity and inclusion guidelines set forth by the American Association of Geographers which include such strategies as developing a “Diversity and Inclusion Committee” in our department, reaching out to campus organizations such as the Intercultural Student Engagement Center (ISEC), and the Pride Center, as well as consulting with Dr. Molly Kerby, WKU’s Chief Diversity Officer. In addition to our efforts at the department and discipline levels, representatives from the ESGS program will work closely with Dr. Stuart Burris, Associate Dean in Ogden College, whose responsibilities include the recruitment and retention of underrepresented minorities, as a mentor and partner in this process.

The ESGS program, in its current incarnation as Geography and Environmental Studies, has already proven itself as a welcoming and inclusive major for female students and underrepresented minorities in STEM disciplines. Not only does our major have a broad appeal for students across a diverse spectrum, regardless of gender, race, ethnicity, or sexual orientation, but also our course offerings include subject matter that directly engages students in exploring the challenges and opportunities in a multicultural and diverse world. The hundreds of WKU students who enroll in our classes each semester—whether for the ESGS major, as electives and/or to meet Colonnade requirements – engage with topics such as migration, identity, law, and human-environment interactions and explore their context and implications for population subgroups, as well as society as a whole. What sets our program apart is the unique nature of our discipline. We provide the link between the sciences and society. Our students engage in spatial critical thinking within the context of cultural diversity. They are afforded the opportunity to explore the human connections between STEM disciplines and the real-world applications and implications of these human-environment interrelationships in their careers and as members of the community at-large.

The courses offered in the ESGS program are relevant and meaningful to underrepresented minorities. We are one of a very small number of programs at WKU in which students can explore the connections between culture, diversity, and science, at local and global scales. In our course offerings, the themes of inclusion, identity, diversity, culture, and geography, are central to the essential learning outcomes. The very nature of the ESGS program meets every aspect of this statement from the “WKU Diversity, Equity, and Inclusion Plan.”

"The encompassing dimensions of diversity involve an appreciation of the differences and unique contributions represented by individual identity, opinion, and culture. Differences may be represented through areas such as race, gender, gender expression, ethnicity, language, religion, sexual orientation, geographic location, abilities or disabilities, and socioeconomic status."

e. Is access to existing programs limited?

NO

f. Is there excess demand for existing similar programs?

YES

Please explain.

The current enrollment of >75 in the WKU B.S. program in Geography and Environmental Studies, the program that is transitioning to the proposed program in Environmental, Sustainability, and Geographic Studies, has nearly doubled in the past year, despite growth in other related programs at benchmark institutions, which indicates there is robust demand within WKU's service area. These are students who have chosen to attend WKU given its status as a regional lighthouse for environmental, sustainability, and GIS work, from which this program combines those strengths into a clearer, more focused degree. The Department also houses three WKU Centers of Excellence, including the Kentucky Climate Center and Mesonet, the Crawford Hydrology Lab, and the Center for Human GeoEnvironmental Studies, all of which are thriving and recruit students for funded research opportunities, engaged learning in the discipline, and enhance visibility for this new program.

Reference
CPE, 2019, accessed November 2019. "Number of females earning STEM credentials in Kentucky increasing, but not at same rate as males,"
https://cpe.ky.gov/_resources/images/weeklyinfographics/infographic-091219.jpg

g. Will there be collaboration between the proposed program and existing programs?

NO

Please explain why there is no proposed collaboration with existing programs.

Not applicable

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

NO

2. Will this program impact existing programs and/or organizational units within your institution?

YES

Please describe the impact.

The proposed program will complement existing programs in the Department (Geology, Meteorology, and the M.S. in Geoscience) and will provide enhanced support for other programs within the institution.

3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

No new costs are anticipated for this program, as it is simply a transformation and redesign of an existing B.S. program. Existing program already generates enough revenue to be self-sufficient.

A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Internal					
Allocation :	0	0	0	0	0
Reallocation :	114515	215650	316786	417921	417946
Narrative Explanation/Justification :	Existing resources will be allocated for use in new program				
Student Tuition					
New :	61476	104510	138580	173968	221800
Existing :	297134	397138	330460	337063	321610
Narrative Explanation/Justification :	Tuition revenue based on no new student coming to WKU the first year. Students will transfer from other programs on Campus.				

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Total					
New :	$61,476	$104,510	$138,580	$173,968	$221,800
Existing :	$411,649	$612,788	$647,246	$754,984	$739,556
Total Funding Sources :	$473,125	$717,298	$785,826	$928,952	$961,356

B. Breakdown of Budget Expenses/Requirements	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Staff: Executive, administrative, and managerial					
New :	0	0	0	0	0
Existing :	18157	18157	18157	18157	18157
Other Professional					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Faculty					
New :	0	0	0	0	0
Existing :	133447	266892	400339	533785	533785
Graduate Assistants (if master's or doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Student Employees					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Equipment and Instructional Materials					
New :	0	0	0	0	0
Existing :	200	225	250	275	300
Narrative Explanation/Justification :	Copier usage, classroom supplies, scantron forms. Covered using existing funds.				
Library					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Contractual Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	N/A				
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Faculty Development					
New :	0	0	0	0	0
Existing :	775	1550	2325	3100	3100
Narrative Explanation/Justification :	The college and department support professional development of faculty. This support uses existing resources and is appx $3100 per year.				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Other					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Total					
New :	$0	$0	$0	$0	$0
Existing :	$152,579	$286,824	$421,071	$555,317	$555,342
Total Budget Expenses/Requirements :	$152,579	$286,824	$421,071	$555,317	$555,342
Grand Total					
Total Net Cost :	$320,546	$430,474	$364,755	$373,635	$406,014

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Full-Proposal - Assess: Program Review and Assessment

1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

The Program faculty subscribe to the general philosophy that short-term, snapshot evaluations of learning outcomes are statistically suspect and do not provide robust-enough data to suggest meaningful improvements. Consequently, we take a longer view of course assessment and learning outcomes, preferring to look at trends over time and to survey graduates regularly to determine trends on what worked and what needed improvement. Additionally, since program outcomes must drive student learning outcomes, we aim to assess the program with both direct and indirect measures and at the course-level, program-level, and student- and employer- level. We will make adjustments to the program and individual courses as appropriate.

Detailed discuss of how each learning objective will be individually assessed is described in section D of this question. Programmatic indirect assessment is discussion below.

Programmatic Indirect Assessment

Indirect measures will be utilized to assess the collective learning outcomes of the program. Specifically, a survey instrument has been developed for majors to complete each semester. Among other questions, the survey asks students to describe the course(s) they feel have been particularly useful at preparing them for their chosen career path within the discipline, courses they feel should be changed to better prepare them and suggestions for changes, skills/courses that aren't offered through the program but that they feel are needed to prepare them for their career path after graduation, and other professional development activities the program has offered or should offer to strengthen their skillsets. Alumni of our program will also be asked to complete the survey instrument approximately one-year after graduation.

Another survey has been created for distribution to common employers of our graduates, particularly those within the region, and to research advisors of students who will proceed to graduate school. This survey is designed to determine if our students are leaving the program with the skillsets necessary to be successful in the geography, sustainability and environmental studies fields. We seek to learn not only if our students have the theoretical knowledge to be successful, but also if they have the ability to apply that knowledge and associated skillsets. All of these data will be collectively assessed annually by a subcommittee of the faculty to determine the degree to which program objectives are being met, which (if any) aspects of the program are sub-optimal, and the best methods to realize needed improvements.

Lastly, for continuing efforts in determining existing and future student interest and market need for the Environmental, Sustainability and Geographic Studies major, an advisory board will be created to seek knowledge outside the department and university from diverse stakeholders in the program's success, including potential employers, graduate programs, and governing organizations. The purpose of the advisory board is to ensure that the major is in line with the university's goals. It serves to connect members of the advisory board with faculty and students, assuring that courses in the major are relevant and of high quality. Members of the advisory board will consist of graduates from WKU and external stakeholders from the private and commercial sectors, non-profit agencies, other academic institutions, and at various levels of government. Responsibilities of advisory board members are to provide feedback, guidance, and knowledge in the various subjects related to the major, as well as provide perspectives on changing dynamics within technology-oriented careers and vocations. The board will be asked specific questions such as is the program reaching the targeted recipients, is the program being implemented as planned/designed, are implementation benchmarks and outcomes (recruitment, retention, and graduation rates) being reaching, is the program progressing as measured by student success indicators, what challenges does the program face, and what improvements/changes in strategies are needed for the program to reach intended outcomes. Advisory board meetings will either be quarterly or biannual depending on need.

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b. When will the components be evaluated?

Each academic year based on course rotation. Described in detail for each learning outcome in section D of this question.

c. When will the data be collected?

Each academic year based on course rotation. Described in detail for each learning outcome in section D of this question.

d. How will the data be collected?

Data will be collected through surveys, pre- and post-assessments distributed in core class, exit exam, internship evaluation forms, and course artifacts evaluated with developed rubrics.

Student Learning Outcomes - Foundations (Define/Describe)
1. Articulate basic environmental concepts, sustainability pillars, and geographical principles and convey an understanding of their value and importance to stakeholders and the public.
2. Compare and contrast circumstances from place-to-place and within different environmental conditions to recognize how actions and policies can predict outcomes.

Assessment Criteria: All majors will be required to take a set of foundational courses which cover principles of human geography (GEOG 110), environmental science (GEOG 280), physical geography (GEOG 103/GEOL 111) and sustainability (GEOG 380). These courses are each part of the WKU Colonnade general education program, and as such have individualized pre- and post-outcomes assessment, which are distributed to each student in ALL sections of these courses. We will use the outcomes of these assessment instruments to determine if students are collectively able to define/describe the theoretical underpinnings of the discipline/degree as outlined in proposed student learning outcomes 1 and 2. If consistent improvement isn't noted between pre- and post-outcome scores in any areas, appropriate curriculum changes across the foundational classes will be made to ensure the learning outcome is met.

Student Learning Outcomes – Technical Required Courses (Method)
3. Execute fieldwork and/or research to collect data regarding socioenvironmental problems.
4. Analyze and communicate complex datasets by integrating human and environmental variables to contextualize broader patterns, trends, and relationships within a spatial, geographical, and environmental context using GIS and other sub-discipline specific techniques.

Assessment Criteria: All majors will be required to take a set of techniques courses designed to build skills in data analysis and communication specific to the discipline (GISC 316, GISC 317, GEOG 391 (spatial data analysis), and GEOG 300 (writing in the discipline)). In the GISC (Geographic Information Science) and data analysis courses, all students will be given a large dataset and instructed to analyze the data using the techniques acquired through their program of study to date. The analysis will be guided with prompts appropriate to the course, but all will have the intent of assessing if students can contextualize broader patterns, trends, and relationships within a spatial, geographical, environmental context. Using a predeveloped rubric, faculty teaching these analytical courses will meet annually to review each artifact produced through this assessment procedure. The rubric will be designed to not only collectively assess students' analytical and data processing abilities, but also evaluate progressive development of skills over the sequence of GISC and data analysis courses. This will provide a programmatic-level view of the breadth and depth of analytical skills and technical knowledge that students have acquired.
The GEOG 300 course requires that each student produce a mock research proposal that outlines a problem within the field, questions that must be answered to address the problem, articulates a full literature review of the problem, and details a methodology for collecting and analyzing datasets to answer the identified questions using qualitative and quantitative techniques as appropriate. Using a predevelop rubric, each proposal (approximately 30 each academic year) will be evaluated by a subcommittee of the program faculty to determine if learning outcomes 3 and 4 are embedded appropriately in the curriculum. Specifically, we seek to identify any weaknesses in skill application, such as communication (writing) or data analysis (GIS). Changes to the sequencing of our techniques classes and/or course content will be implemented to address any failures in meeting the evaluative skillset of this objective.

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Student Learning Outcomes – Career Emphasis Courses (Synthesize)
5. Gain competency in applied information processing skills and geospatial analytical techniques.
6. Recognize that contemporary challenges and problem-solving requires holistic research and reflection, using knowledge and technology.

Assessment Criteria: All majors will be required to complete an independent research practicum or discipline-related internship as part of their course of study. At the end of their internship, students must complete a reflective essay detailing what they learned during the internship, the knowledge and skills applied during the internships, problems/tasks they addressed as part of their internship duties, and how the internship specifically applied to their major. They must also describe challenges they faced to complete tasks as part of the internship and how they overcame those challenges. A similar reflective report must be produced by students completing a research practicum. Additionally, an evaluative form will be requested of internship supervisors to determine satisfaction with our students' knowledge and skillsets and to reflect upon lacuna in both these areas that might be addressed by program enhancements. Annually, a subcommittee of the faculty will use a rubric to evaluate these reports to ascertain if students were able to apply the knowledge and skills learned through their coursework during their internship or research activities. The ability of students to problem-solve any issues they encountered or were presented with during their internship and research activities will also be assessed by the committee. Changes will be implemented across the curriculum to address shortcomings.

Additionally, all students will complete an exit exam as part of their GEOG 499 course. This exam will require students to demonstrate theoretical and applied knowledge. For the applied section, students will be given a hypothetical situation and associated dataset and will be expected to develop a holistic plan to investigate and analyze the problem using a variety of skills they have honed through their course of study in the major. The assessment subcommittee will review the exams to determine if at least 70% of the sample demonstrates a clear recognition of appropriate decisions in context.

e. What will be the benchmarks and/or targets to be achieved?

Enhanced persistence and retention of students between levels, improved graduation rates. Courses achieve the assessment criterion (learning outcome) measured as outlined in section D of this question.

f. What individuals or groups will be responsible for data collection?

The program faculty will share assessment responsibility based on instructional responsibilities. The program coordinator and Department Chair will share responsibility for ensuring the data collection takes place on the predetermined schedule as outlined in this proposal.

g. How will the data and findings be shared with faculty?

The program faculty hold multiple meetings each academic each academic semester. The results of the program assessment will be shared and discussed at this meetings. The results will also be shared and archived with all Department faculty on the Department shared drive.

h. How will the data be used for making programmatic improvements?

Changes will be made to course curriculum and teaching to achieve program objectives not being met. We will also consult the program advisory board about why some objectives are not being met and how to make improvements. Changes to the sequencing of our techniques classes and/or course content will also be implemented to address any failures in meeting the evaluative skillset of objectives. A full detailed discussion of the strategies for programmatic improvements based on each individual learning objective are outlined in section D of this question.

2. What are the measures of teaching effectiveness?

Discussed in detail above

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Discussed above. Courses that reveal weaknesses in meeting learning outcome goals will be revamped, with a focus on those areas in the content that needs strengthening (e.g., the introduction on new GIS software or lab-based models may well determine a revised direction of learning outcomes).

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4. What are the plans to evaluate students' post-graduate success?

Working with Alumni Affairs, the program aims to track all students post-graduation to determine career paths, levels of program satisfaction, and efficacy of coursework. At the present time, the program has identified 50 students who graduated between Summer 2016 and Fall 2019 and is in the process of tracking these students to identify career paths, which courses best fit their career choices, and what observations they have about the quality of the program in preparing them for their current career. Alumni will be queried at one-year, two-year, five-year, and ten-year post-graduation time frames to track long term job-market trends and assess how well the ESGS program prepared students for careers and life-long learning, in addition to their first job out of college. Employers who frequently target program majors will also be queried in order to ensure that hired graduates continue to receive the training and preparation necessary through the program as job duties and skillset needs evolve based on their performance and demand.

PROPOSED PROGRAM SUMMARY

Instituion: Western Kentucky University
Program Name: Film Production
Degree Designation: BACHELOR OF FINE ARTS (BFA)
Degree Level : Baccalaureate

Program Description

The BFA in Film Production is a pre-professional major providing an immersive, conservatory-style educational experience for students pursuing a career in the film industry. Hands-on instruction in pre-production (writing, producing), production (directing, cinematography, production design), and post-production (editing, sound, visual effects) provides students foundational concepts and practical skills which are reinforced through their work on short films. Film studies courses emphasize critical and analytical thinking through the study of global film culture, history, and aesthetics.

BFA in Film Production students will rotate through “below-the-line” (technical) and “above-the-line” (creative) roles on two short film production cycles, leading to a final thesis film cycle where seniors choose an area of emphasis (directing, cinematography, producing, production design, editing, sound). By the time of their graduation, every BFA in Film Production student will be ready to enter the workplace with nearly 30 student film credits for their resumé.

Students seeking the BFA in Film Production must take 12 hours of film core curriculum their first year and submit to a portfolio review their second semester. Twenty-four students will be selected per year for admission into the program. After admission, students follow a prescribed class schedule to ensure completion of the program in four years. The BFA in Film Production does not allow for a minor or second major.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

The BFA in Film Production will be offered alongside WKU’s BA in Film production. The BFA in Film Production will be an intensive pre-professional program which gives students numerous opportunities to make films without taking non-film courses concurrently. This option would be good for a student pursuing a career in the film/television industry in narrative filmmaking. The BA in Film is an open-ended liberal arts program giving students a wide breadth of knowledge through film electives and minor/double major options. This option would be good for a student who has a general interest in film, wants the option of double majoring, or intends to continue on to graduate school. Since many arts programs (including WKU’s own Visual Art, Performing Arts, and Music programs), offer both degree types (pre-professional and liberal arts), there is precedent for the two programs to coexist at the same university.

CIP Code: 50.0602
Credit Hours: 120
Institutional Board Approval Date: 5/31/2020

Implementation Date: 8/1/2020

Student Demand

Year 1 - 24
Year 2 - 48
Year 3 - 72
Year 4 - 72
Year 5 - 72

Market Demand

As of Fall 2019, no university in Kentucky offers a Bachelor of Fine Arts film degree. This means any Kentucky student seeking a pre-professional undergraduate degree in filmmaking must look out-of-state for their undergraduate education. Although a small group of Kentucky universities, including WKU, offer baccalaureate film programs (WKU's and Campbellsville's BA in Film, Asbury's BA in Media Communication, Film Production emphasis), these programs are liberal arts degrees by design, requiring a minor, second major, or significant elective credits for graduation. Since film production is as much a technical enterprise as it is creative, students pursuing a career in the film industry would benefit from the enhanced focus and extended coursework provided by a pre-professional Bachelor of Fine Arts in Film Production.

Employment Demand

	Regional	State	National
Type Of Job	**Art Directors**		
Avg. Wage	$0	$80,373	$92,780
# Jobs (Postings)	0	573	101000
Expected Growth	0%	1%	1%
Type Of Job	**Film and Video Editors and Camera Operators**		
Avg. Wage	$0	$49,447	$58,990
# Jobs (Postings)	0	115	69200
Expected Growth	0%	17%	11%
Type Of Job	**Producers and Directors**		
Avg. Wage	$49,175	$50,632	$71,680
# Jobs (Postings)	45	1068	152400
Expected Growth	11%	8%	5%
Type Of Job	**Writer and Authors (Screenwriters)**		
Avg. Wage	$0	$48,181	$62,170
# Jobs (Postings)	0	1217	123200
Expected Growth	0%	4%	0%

Indicate source of market demand information
National Data: Bureau of Labor Statistics' Occupational Outlook Handbook
Regional and State Data: Kentucky Center for Statistics

*Since state and national labor data does not reflect a large percentage of crew positions in the film and television industry and since most major motion pictures, television shows, and commercials are covered by union contracts, Peter Kurland, Business Agent for International Alliance of Theatrical Stage Employees (IATSE) Local 492 (Nashville office for the film crew union), provided some additional data about union crew member salaries in the region.

Academic Demand
In order to gauge interest for a BFA in Film Production, an online survey was conducted via Qualtrics among current WKU film students and film alumni. Support among both groups for a BFA in Film Production was overwhelmingly positive. Of the 74 current students who responded, 85% (n=63) said they would have chosen a BFA in Film Production if it were an option when they arrived at WKU. Of the 28 alumni responses, 86% (n=24) answered similarly. Sixty-two percent (n=46) of student respondents said they would apply for the BFA in Film Production if it becomes available. Most tellingly, 57% (n=42) of current students and 50% (n=14) of alumni said they would have chosen a Kentucky university other than WKU if it had offered a BFA in Film Production. There is clearly a desire among students seeking an undergraduate degree in film for a BFA in Film Production.

Unneccessary Duplication

Similar Program(s):

Comparison of Objectives/Focus/Curriculum to Similar Programs:
Bluegrass Comm. & Tech. College: AFA in Digital Cinematic Arts (50.0602)
While BCTC's Associate of Fine Arts in Digital Cinematic Arts and WKU's BFA in Film Production share similar objectives (both emphasize hands-on, project-based learning of filmmaking), WKU's BFA in Film Production is over twice as many credit hours culminating in a baccalaureate degree. This allows for more hands-on experience over an extended period of time, ultimately culminating in an area of expertise (directing, cinematography, editing, etc.)

Western Kentucky University: AB in Film (09.0701)
Although they share a common core curriculum, the BFA in Film Production is designed for students wishing to pursue a career in the film/television industry in narrative filmmaking. The BA in Film would be ideal for students who have a general interest in film, want the option of double majoring, or intend to continue on to graduate school.

Comparison of Student Populations:

WKU's BFA in Film Production does not overlap student populations because it is targeted solely at an undergraduate student population, whereas the Asbury's MFA is targeted at a graduate student population. According to the CPE program inventory, the MFA program is a hybrid face-to-face / distance learning program. WKU's BFA in Film Production is a 100% face-to-face program.

Bluegrass Comm. & Tech. College: AFA in Digital Cinematic Arts (50.0602)
WKU's BFA in Film Production does not overlap student populations because is it targeted solely at a student population pursuing a baccalaureate degree, whereas the AFA is targeted at students seeking a two-year degree. According to the CPE program inventory, the AFA in Digital Cinematic Arts is a hybrid face-to-face / distance learning program. WKU's BFA in Film Production is a 100% face-to-face program.

Western Kentucky University: AB in Film (09.0701)
Students wishing to pursue either the BFA in Film Production or the BA in Film will take the same film core curriculum courses their first year.

Access to Existing Programs:

Bluegrass Comm. & Tech. College: AFA in Digital Cinematic Arts (50.0602) Students who complete BCTC's AFA degree could elect to continue their studies in WKU's current BA in Film or the proposed BFA in Film Production. A transfer student who has already completed their general education requirements could complete the BA in Film in two years. BCTC AFA students seeking the BFA in Film Production would require a three-year commitment to complete the degree.

Western Kentucky University: AB in Film (09.0701)
Students must apply for entry into the BFA in Film Production. Students who are not selected for the BFA or opt out of the application process will have the option of pursuing the BA in Film.

Feedback from Other Institutions:
Bluegrass Comm. & Tech. College: AFA in Digital Cinematic Arts (50.0602)
Stephanie Fitch, Program Coordinator of Filmmaking and Cinematic Arts at BCTC, was emailed for comment on 10/25/19. No feedback provided at time of proposal submission.

Western Kentucky University: AB in Film (09.0701)
N/A

Cost

Projected Revenue over Next Five Years ($) : 6554076
Projected Expenses over Next Five Years ($) : 2778710

Will Additional faculty be needed? Yes
In AY 2018-2019, Western Kentucky University undertook a campus-wide Comprehensive Academic Program Evaluation (CAPE) assessing all academic programs on campus. The BA in Film major was one of fifteen academic programs to receive a Grow/Enhance recommendation. As a way to support these Grow/Enhance programs, the university has set aside funding in its new Resource Allocation, Management, and Planning (RAMP) budgeting model for a Strategic Investment Fund. This Fund will support a new tenure-track film faculty line with a specialization in the area of Production Design, covering courses in the proposed BFA in Film Production, as well as the current BA in Film.

Provide a budgetary rationale for creating this new program
Western Kentucky University has made significant investments in the film program since its inception in 2010. These investments have made a meaningful impact in the lives of film students for the last nine years, whom receive access to industry-experienced faculty and professional-grade filmmaking equipment and facilities. In order to make this impact as equitable as possible, the film faculty ascribe to a “level playing field” philosophy regarding film facilities and equipment access. This means that parameters such as shooting days, running time, and equipment allocation are assigned based on course learning objectives, rather than first-come, first-serve or a model where the student with the most money makes the best film.From a pedagogical perspective, this means that each student is

COVID-19 Question: WKU – Film Production (BFA) Proposal

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program?

Response from WKU:

For incoming freshmen who might choose to apply for the BFA their second semester, COVID-19 will have minimal impact, as first semester film classes are shared with the pre-existing BA in Film curriculum and are already scheduled for the fall (in whatever delivery format the university ultimately chooses.) As both FILM 100 Industry & Aesthetics and FILM 201 Introduction to Cinema are largely lecture-based with primarily individual assignments and projects, they can be offered through in-person, online, or hybrid models. In fact, FILM 201 was shifted online in Spring 2020 during the COVID-19 shutdown.

For returning BA in Film students who might apply to switch to the BFA in Film Production, COVID-19 poses a greater challenge, but one that is not insurmountable. These students will require more hands-on courses, so the film faculty is preparing for several contingencies:

a) If all classes are online in the fall, we will move hands-on, production-based courses to the spring and focus on courses where content can be delivered via Zoom and Blackboard (i.e. film studies, producing, screenwriting, production design), as the production experience cannot be replicated online.

b) If classes are in-person with social distancing, then hands-on courses and film productions will be limited to small groups and follow industry-standard COVID-19 health and safety practices once they are formalized by the film trade unions (ETA Summer 2020). Lecture-based classes will follow standard health and safety procedures as established by the university.

c) If classes follow a hybrid model, then we will limit hands-on courses to small groups to enforce social distancing, and depending on the scheduling model, delay film productions until the end of the fall semester or push them to the spring semester entirely. Lecture classes can be moved online, if necessary, due to social distancing requirements.

Course Title (CIP)

Degree Program Core Courses (i.e., Courses required by ALL students in the Major--includes Premajor or Preprofessional courses)

Course Prefix	Course #	Course Title	Course Description	Type of Course: program core (C) or pre-major/ pre-professional (P)	Credit Hours	Existing (E) or New (N) Course
FILM	100	Film Industry & Aesthetics	Introduction ot the film industry and aesthetics of cinematic visual storytelling, considered from both studio and independent practitioners' perspectives.	C	3	E
FILM	201	Introduction to Cinema	A study of the basic elements and techniques of the film medium, designed to increase the students' understanding and appreciation of the motion picture both as a communication medium and as an art form. A number of film masterpieces will be viewed and analyzed. Lecture and lab.	C	3	E
FILM	202	Basic Film Production	Introduction to film production equipment and on-set crew positions. Practical, hands-on experience rotating through crew positions in a workshop setting.	C	3	E
FILM	250	Screenwriting I	A concentrated study in the fundamentals of screenwritng for narrative film; conflict, character, structure, plot, dialogue, and subtext. Emphasis on visual storytelling through short screenplays.	C	3	E
FILM	251	Film Directing I	Course provides students with a concentrated study in the fundamentals of directing for narrative film: script analysis, working with actors, rehearsal process, blocking camera, staging actors, editing. Emphasis on visual storytelling through short filmed projects.	C	2	N
FILM	252	Film Producing	A concentrated study in the fundamentals of producing for film: developing ideas, script evaluation, fundraising, budgeting, scheduling, and production management. Emphasis on creative and managerial skills through short projects.	C	2	N
FILM	253	Cinematography I	A concentrated study in the fundamentals of cinematography: capture/presentation formats, lighting, camera, exposure, and composition. Emphasis on visual storytelling through short filmed projects.	C	2	N
FILM	254	Production Design I	A concentrated study in the fundamentals of production design for narrative film: color and shape, form, wardrobe, hair/make up, and set design/decoration. Emphasis on visual storytelling through short projects.	C	2	N
FILM	255	Film Sound	A concentrated study in the fundamentals of postproduction sound for narrative film: dialogue editing and audio restoration, sound design, ADR & foley, pre-dubbing, final mix/re-recording. Emphasis on visual storytelling through short projects.	C	2	N
FILM	274	Film Editing I	A concentrated study in the fundamentals of editing for narrative film: evaluating footage, technical editing, continuity editing, audio editing, basic mixing, collaboration. Emphasis on visual storytelling through short projects.	C	3	N
FILM	289	Practicum: Pre-Production I	Intensive, practical, project-based experience in pre-production strategies for narrative (fiction) filmmaking. Emphasis on the practical application of pre-production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	2	N
FILM	291	Practicum: Below-the-Line I	Intensive, practical, hands-on experience in film production as below-the-line crew. Emphasis on techniques and strategies developed in previous Basic Film Production course related to key deparments of below-the-line crew. Specific focus designed in consultation with instructor.	C	3	N
FILM	292	Practicum: Above-the-Line I	Intensive, practical, project-based experience in production strategies, skills and techniques for narrative (fiction) filmmaking. Emphasis on the practical application of above-the-line production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	3	N
FILM	350	Screenwriting II	An advanced study in the fundamentals of screenwriting for narrative film: conflict, character, structure, plot, dialogue, and subtext. Emphasis on visual storytelling through short screenplays.	C	2	N
FILM	351	Film Directing II	Course provides intermediate students with a concentrated study and implementation of directorial style for narrative film: evaluating various directorial styles of master filmmakers by analyzing the composite elements of style (mise-en-scene, cinematography, editing & sound) as they apply to the director's duties pre-to-postproduction. Emphasis on visual storytelling through short projects.	C	2	N
FILM	353	Cinematography II	A concentrated study in advanced cinematography: professional practices, lighting, camera techniques, and color grading. Emphasis on visual storytelling through short filmed projects.	C	2	N
FILM	354	Production Design II	A concentrated study in advanced production design for narrative film: professional practices, set construction, design for visual and special effects, and character design. Emphasis on visual storytelling through short projects.	C	2	N
FILM	365	Film Genres	A survey course covering the historical development, thematic and stylistic conventions, and cultural significance of critical film genres. Surveys representative films from several genres, i.e. film noir, Westerns, crime & gangster, thriller, horror, science fiction, romantic comedy, etc.	C	2	N
FILM	369	Introduction to World Cinema	Examines cinema in several regions including China, India, Europe, Middle East, Africa, and Latin America. Viewing of representative films accompanied by background readings on history/culture.	C	3	E
FILM	374	Film Editing II	A concentrated study in advanced editing techniques for narrative film: complex continuity editing, dialogue editing, cutting action and suspense, scene transitions, visual effects. Emphasis on visual storytelling through short projects.	C	2	N
FILM	389	Practicum: Pre-Production II	Intensive, practical, project-based experience in pre-production strategies for narrative (fiction) filmmaking. Emphasis on the practical application of pre-production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	3	N
FILM	391	Practicum: Below-the-Line II	Intensive, practical, hands-on experience in film production as below-the-line crew. Emphasis on techniques and strategies developed in previous Basic Film Production and Below-the-Line I courses related to key departments of below-the-line crew. Specific focus designed in consultation with instructor.	C	3	N
FILM	392	Practicum: Above-the-Line II	Intensive, practical, project-based experience in production strategies, skills and techniques for narrative (fiction) filmmaking. Emphasis on the practical application of above-the-line production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	3	N
FILM	394	Practicum: Post-Production I	Practical, hands-on experience in post-production, designed to facilitate the production of a 6- to 8-minute film during the student's junior year. Emphasis on techniques and strategies developed in previous Editing and Sound courses, related to visual and audio post-production. Specific focus designed in consultation with instructor.	C	3	N
FILM	466	Film Theory	Study of major theories of narrative film and related media; specific theories examined will include formalist, auteurist, historical, structuralist, psychoanalytical, and political. Will include viewing of selected films.	C	3	E
FILM	486	Film Capstone	A senior capstone experience synthesizing and assessing the complete field of study for film majors. Includes an exploration of career and graduate study opportunities.	C	3	E
FILM	488	Thesis Development	Collaborative pre-production experience, designed to facilitate the production of a 10- to 12-minute film during the student's senior year. Emphasis on techniques and strategies developed in previous Screenwriting and Producing courses, related to screenplay and project development. Specific focus designed in consultation with instructor.	C	3	N
FILM	489	Practicum: Pre-Production III	An advanced intensive, practical, project-based experience in pre-production strategies for narrative (fiction) filmmaking. Emphasis on the practical application of pre-production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	3	N
FILM	491	Practicum: Below-the-Line III	Intensive, practical, hands-on experience in film production as below-the-line crew. Emphasis on techniques and strategies developed in previous Basic Film Production, Below-the-Line I, and Below-the-Line II courses related to key departments of below-the-line crew. Specific focus designed in consultation with instructor.	C	3	N
FILM	492	Practicum: Above-the-Line III	An advanced intensive, practical, project-based experience in production strategies, skills and techniques for narrative (fiction) filmmaking. Emphasis on the practical application of above-the-line production skills, strategies, and best practices covered and developed in previous course offerings. Specific focus designed in consultation with instructor.	C	3	N

FILM	494	Practicum: Post-Production II	Intensive hands-on experience in post-production, designed to facilitate the production of a 10- to 12-minute film during the student's senior year. Emphasis on techniques and strategies developed in previous Editing and Sound courses, related to visual and audio post-production. Specific focus designed in consultation with instructor.	C	3	N
			Total Credit hours Required for Program Core (i.e., # of hours in degree program core) **Note: number recorded will automatically populate Core Hours in "Summary of Total Program Hours" table**		**81**	**NA**

Core Courses Required for Track(s), Concentration(s), or Speciality(s) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
Total Credit hours Required for Program Options (Track(s), Concentration(s), or Speciality) (if applicable)			**Note: number recorded will automatically populate Program Option hours in "Summary of Total Program Hours" table**		**0**	**NA**

GUIDED Elective Courses (i.e., Specified list of Program Electives AND/OR Electives focused on a specific track/concentration/or speciality) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
			# of REQUIRED Credit hours in Guided Electives (i.e., electives for a focused or track/concentration/speciality are). If 9 hours is required and there are 15 hours to choose from, then only 9 hours are required) Note: number recorded will automatically populate Guided Elective hours in "Summary of Total Program Hours" table			**NA**

FREE Elective Courses (i.e, general program electives, open to the students to choose) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or	Credit Hours	Existing (E) or New (N) Course
Total # of Credit Hours in Free Electives (i.e., general program electives) (if applicable)			**Note: number**		**0**	**NA**

Summary of Total Program Hours	**Required Core Hours (i.e., # of hours in degree program core)**	**81**	NA
	Required Program Options - Track/Concentration/Specialty Hours (if applicable)	**0**	NA
	Guided Elective Hours (e.g., focused or track/concentration/speciality area specific electives) (if applicable)	**0**	NA
	Free Elective Hours (i.e., general program electives) (if applicable)	**0**	NA
	Total # of credit hours required for Program	**81**	**NA**
Information to be completed by PIE Office			
	# of new courses		NA
	Total # of Courses (includes new and existing)		NA
	Precentage of new courses (more than 25% may require SACS Substantive Change)	#VALUE!	NA

Western Kentucky University
BFA - BACHELOR OF FINE ARTS
50.0602-Cinematography and Film/Video Production.
Submission Date: 04/27/2020 13:07

Full Proposal - Basic Info

Institution :	Western Kentucky University
Program Type :	Single Institution
Program Name :	Film Production
Degree Level :	Baccalaureate
Degree Designation :	BACHELOR OF FINE ARTS
CIP Code (2-Digit) :	50-VISUAL AND PERFORMING ARTS.
CIP Code :	50.0602-Cinematography and Film/Video Production.

Academic Unit (e.g. Department, Division, School) :	Potter College of Arts and Letters
Name of Academic Unit :	School of Media
Name of Program Director :	Travis Newton

Intended Date of Implementation :	8/3/2020
Anticipated Date for Granting First Degrees :	5/1/2022
Date of Governing Board Approval :	5/15/2020

Institutional Contact Information

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Western Kentucky University
BFA - BACHELOR OF FINE ARTS
50.0602-Cinematography and Film/Video Production.
Submission Date: 04/27/2020 13:07

Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

1) To ensure students are prepared and attractive to potential employers in the film industry, or wherever visual storytelling skills are needed, through emphasis on technical and creative skills, professional practices and equipment, as well as critical thinking and problem solving.

2) To build a workforce for film productions choosing to film in Kentucky due to its competitive tax incentives.

3) To produce competitive student resumés and portfolios, as well as increase their professional exposure through regional/national film festival screenings and award competitions.

4) To expose students through film studies courses to cultures and filmmakers from diverse backgrounds from around the world while encouraging students to be engaged and aware of how their own films contribute to the cultural conversation.

Western Kentucky University
BFA - BACHELOR OF FINE ARTS
50.0602-Cinematography and Film/Video Production.
Submission Date: 04/27/2020 13:07

2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The BFA in Film Production is designed to support the following aspects of WKU's strategic plan "Climbing to Greater Heights":

A Culture of Innovation
The BFA in Film Production prepares students to be productive, engaged, and socially responsible citizens through its two-pronged emphasis on film production and film studies. In production courses, students use the latest technology in a collaborative, immersive environment to learn technical and creative skills necessary to tell stories in a visual medium, skills that will make them employable should they choose to pursue filmmaking as a profession.

A Regional Lighthouse
In addition, students learn essential problem-solving, teamwork, and leadership skills necessitated by the collaborative process of filmmaking. No team can succeed without clear goals, structure, and communication, and production courses emphasize these "soft skills" as strongly as technical skills. BFA in Film Production students interact with the community through location filming around south central Kentucky and public showcases of student work on campus.

Global Learning
Film studies courses, including world cinema, expose students to cultures and filmmakers from diverse backgrounds from around the world while encouraging students to be engaged and aware of how their own films contribute to the cultural conversation. Students develop strong writing, research, and critical thinking skills, while engaging with an art form that crosses cultural and national boundaries.

The BFA in Film Production is also designed to support the following objectives of Kentucky's postsecondary education strategic agenda:

Career Readiness and Employability (Objective 9)
Through its emphasis on technical and creative skills, professional practices and equipment, as well as critical thinking and problem solving, the BFA in Film Production ensures students are prepared and attractive to potential employers. As more film productions choose to film in Kentucky due to its competitive tax incentives, it is imperative the state have a local workforce ready to greet them. With its extensive film production courses and focus on professional practices, the BFA in Film Production is designed to build such a workforce.

Increase Persistence and Timely Completion (Objective 6)
By design, students who enroll in the BFA in Film Production as freshmen will complete their degree in four years. This timely completion is made possible by the major's "lock-step" curriculum, which ensures classes are taken in a prescribed progression and at a pre-assigned time in the student's undergraduate career. In addition, students move through the program as a cohort, thereby increasing their chances for persistence and completion.

Western Kentucky University
BFA - BACHELOR OF FINE ARTS
50.0602-Cinematography and Film/Video Production.
Submission Date: 04/27/2020 13:07

3. Explain how the proposed program addresses the state's postsecondary education strategic agenda.

The BFA in Film Production is also designed to support the following objectives of Kentucky's postsecondary education strategic agenda:

Career Readiness and Employability (Objective 9)
Through its emphasis on technical and creative skills, professional practices and equipment, as well as critical thinking and problem solving, the BFA in Film Production ensures students are prepared and attractive to potential employers. As more film productions choose to film in Kentucky due to its competitive tax incentives, it is imperative the state have a local workforce ready to greet them. With its extensive film production courses and focus on professional practices, the BFA in Film Production is designed to build such a workforce.

Increase Persistence and Timely Completion (Objective 6)
By design, students who enroll in the BFA in Film Production as freshmen will complete their degree in four years. This timely completion is made possible by the major's "lock-step" curriculum, which ensures classes are taken in a prescribed progression and at a pre-assigned time in the student's undergraduate career. In addition, students move through the program as a cohort, thereby increasing their chances for persistence and completion.

4. Explain how the proposed program furthers the statewide implementation plan.

Outcome-Based Funding:
Western Kentucky University, in partnership with Huron Consulting, has developed a Resource Allocation, Management and Planning (RAMP) budgeting model which, in the words of WKU President Caboni will "rebalance our internal investments based on strategic priorities while ensuring that our budgeting system supports our core mission, and we must take an approach that allows us to incentivize and reward performance." At the department level, the RAMP model allocates resources based on enrollment, student credit hour production, retention, and completion rates. The RAMP model also allows for a Strategic Investment Fund, which helps fund innovative curriculum. A new hire in Production Design for the BFA in Film Production is made possible by the Strategic Investment Fund.

Measures of Progress:
In AY 2018-2019, Western Kentucky University underwent a campus-wide Comprehensive Academic Program Evaluation (CAPE) which identified programs as grow/enhance, maintain, transform, and suspend. The BA in Film major was one of fifteen academic programs to receive a Grow/Enhance recommendation. As a way to support these Grow/Enhance programs, the university has set aside funding in its new Resource Allocation, Management, and Planning (RAMP) budgeting model for a Strategic Investment Fund. New programs will be assessed every two years to make sure they achieve their enrollment and retention goals.

Measures of Progress:
Every major and minor at Western Kentucky University, including the proposed BFA in Film Production, must submit an annual Assurance of Student Learning (ASL) plan and score card. Student learning outcomes are evaluated, and the results are measured against stated goals as either "met" or "not met." Learning outcome goals that are not met are evaluated for teaching/evaluation effectiveness. The Office of Academic Affairs, which oversees the ASL assessments, "supports a culture of continuous improvement through intentional, systematic self-reflection of our academic learning goals, measurements, outcomes, and renewals."

Kentucky Postsecondary Program Proposal System

Western Kentucky University
BFA - BACHELOR OF FINE ARTS
50.0602-Cinematography and Film/Video Production.
Submission Date: 04/27/2020 13:07

Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

Upon completion of the BFA in Film Production, students will be able:

1) To demonstrate technical proficiency in the below-the-line (technical) areas of camera, lighting, grip, sound, script supervising, and assistant directing.

2) To demonstrate visual storytelling proficiency in the above-the-line (creative) areas of writing, directing, producing, cinematography, production design, and editing.

3) To prepare a post-graduation employment plan based on an understanding of the film industry in both studio (Hollywood) and independent film production.

4) To evaluate films or solve production problems in an organized, coherent fashion using critical thinking and problem-solving skills.

5) To communicate effectively, orally and through the written word, on a film set or other professional setting that requires visual storytelling.

6) To manage a team or collaborate effectively as a team member, on a film set or other professional setting that requires visual storytelling.

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

Student Learning Outcome #1: Below-the-Line (Technical) Skills
These technical skills are the essential building blocks of working in film production. Beginning the second semester in Basic Film Production, students learn technical skills in below-the-line (crew) positions, as well as industry professional practices and set etiquette. Students hone these skills through classroom instruction and required lab hours.

Students demonstrate their competence in below-the-line skills through three cycles of film practicum courses which allow students to rotate through every technical position on their classmates' films. Students evaluate their peers in the areas of job performance, attitude, punctuality, reliability, and safety. A film production professor supervises the below-the-line practicums.

Student Learning Outcome #2: Above-the-Line (Creative) Skills
These creative skills are essential for successful visual storytelling. Beginning the first semester with Film Industry & Aesthetics, students learn the basics of visual storytelling through the study of composition, story structure, and script analysis. These skills are built upon in specialized courses, such as Screenwriting I & II, Directing I & II, Cinematography I & II, Editing I & II, etc. Students complete a series of exercises and assignments during class under faculty supervision or on their own in small teams.

Students demonstrate their competence in above-the-line skills through three cycles of film practicum courses which allow students to rotate through every major creative position on their classmates' films while working through the entire filmmaking process, from story pitch to finished film. Students receive faculty advisement from a professor specializing in the relevant position: director, cinematographer, editor, etc. These films are ultimately screened at an end of the year festival and submitted to film festivals and award competitions.

Student Learning Outcome #3: Film Industry Knowledge
Knowledge of the film industry is essential for successful student employment post-graduation. Students learn the basic "lay of the land" in Film Industry & Aesthetics, such as the modern studio system, talent representation, issues relate

gender/race, etc. They also learn basic concepts in self-promotion, such as resumés and reels, websites, networking, etc. These foundational concepts allow students to enhance their resumés and reels throughout the program and procure work or internships during the summers.

Students demonstrate their competence in the film industry during the Film Capstone course their final year. Students are expected to craft a post-graduation plan, such as potential employment opportunities, networking opportunities, monthly budgets and expenditures, etc. Class discussions and assignments are supplemented with in-person or Skype guest speakers.

Student Learning Outcome #4: Critical Thinking/Problem-Solving Skills
The ability to critically evaluate a film or solve a production problem in an organized, coherent fashion is essential for success on-set and in film studies. Since critical thinking and problem solving are the essence of filmmaking itself, students are expected to use these skills in every course in the BFA in Film Production. In film studies courses, students learn to think analytically about film from diverse backgrounds around the world. Students then, in turn, apply these analytical skills to their own completed films through peer-evaluation and feedback.

Making a film is, at its core, a series of problems that must be solved. From logistical problems, like finding an appropriate location or actor, to creative problems, like conveying the appropriate mood through lighting, students must successfully solve problems at every step of the process. In addition, in the “real world,” filmmakers must deal with the realities of budgets and schedules, so the film practicums simulate these problems by creating production parameters, such as limited runtimes, shooting days, or storage media. Students must find creative ways to tell their story while overcoming sometimes seemingly impassible problems.

Student Learning Outcome #5: Communication Skills
The ability to communicate effectively, orally and through the written word, is essential to success on set and in film studies, so it is emphasized throughout the entire curriculum. Starting with Intro to Cinema, students in film studies courses (World Cinema, Film Genres, Film Theory) learn to organize and communicate their thoughts through analytical papers and multimedia presentations. Since the world of film criticism has embraced forms like the video essay, students are also required to present their analytical work in a variety of mediums, such as video essays and blog posts.

In production courses emphasizing below-the-line skills, students learn to communicate within a rigid production structure through industry-standard protocols, such as walkie-talkie etiquette and chain-of-command. In production courses emphasizing above-the-line skills, such as the film practicums, students are expected to communicate their ideas to the faculty verbally and through the written word at every phase of the process. Students ultimately present a plan of action to the faculty in a formal presentation setting for each film they undertake. The faculty provide feedback on both the content and the delivery of these presentations to improve the students’ films and their presentation skills.

Student Learning Outcome #6: Teamwork/Leadership Skills
The ability to function as part of a team, or a team leader, is essential for success in film production. Filmmaking is collaborative in nature, so every course in the BFA in Film Production curriculum emphasizes this bedrock concept. However, since many incoming students have no background in film production or may have only worked on projects by themselves, collaboration is not a skill that comes naturally to them. Thankfully, the structure of a professionally-run film set provides an environment where students can learn teamwork and leadership by degrees.

Starting with Film Industry & Aesthetics, students work in “entry-level” positions, such as production assistant or art assistant on upperclassmen films. This allows them to observe the workings of a film set while serving an actual crew position. In Basic Film Production, students learn basic crew skills which they put to use on upperclassmen films in “skilled” positions, such as grip, camera assistant, or boom op. Ultimately, through content-area instruction and experience working on set, students are prepared to now serve in “head of department” positions, such as director, cinematographer, etc.

3. Highlight any distinctive qualities of this proposed program.

As of Fall 2019, no university in Kentucky offers a Bachelor of Fine Arts film degree. This means any Kentucky student seeking a pre-professional undergraduate degree in filmmaking must look out-of-state for their undergraduate education. Although a small group of Kentucky universities, including WKU, offer baccalaureate film programs (WKU's and Campbellsville's BA in Film, Asbury's BA in Media Communication, Film Production emphasis), these programs are liberal arts degrees by design, requiring a minor, second major, or significant elective credits for graduation. Since film production is as much a technical enterprise as it is creative, students wishing to enter the film industry would benefit from the enhanced focus and extended coursework provided by a Bachelor of Fine Arts in Film Production.

4. Will this program replace any existing program(s) or specializations within an existing program?

YES

Please specify.

The BFA in Film Production will be offered alongside WKU's BA in Film production. The BFA in Film Production will be an intensive pre-professional program which gives students numerous opportunities to make films without taking non-film courses concurrently. This option would be good for a student pursuing a career in the film/television industry in narrative filmmaking. The BA in Film is an open-ended liberal arts program giving students a wide breadth of knowledge through film electives and minor/double major options. This option would be good for a student who has a general interest in film, wants the option of double majoring, or intends to continue on to graduate school. Since many arts programs (including WKU's own Visual Art, Performing Arts, and Music programs), offer both degree types (pre-professional and liberal arts), there is precedent for the two programs to coexist at the same university.

5. Include the projected faculty/student in major ratio.

At full capacity (72 students across three cohorts), the projected faculty/student ratio for School of Media film faculty (5 with a new production design hire for fall 2020) to admitted BFA students will be 5:72 or 1:14.4. This ratio does not take into account four faculty in the English department who teach film studies courses as part of their English course load. Taken as a group, they constitute approximately a sixth faculty member's 4/3 teaching load, which would bring the faculty/student ratio to 6:72 or 1:12.

6. Is there a specialized accrediting agency related to this program?

YES

Please identify the agency.

National Association of Schools of Art and Design (NASAD)

Do you plan to seek accreditation?

YES

Please explain your plans for accreditation.

Western Kentucky University is currently accredited by NASAD in the areas of Art and Interior Design. Since NASAD accreditation is for the entire university, the new BFA in Film Production program will need only submit a Consultative Review and an accreditation Plan Proposal to be considered during the next round of accreditation self-study and site visits. These documents are currently being drafted in consultation with NASAD's WKU contact, Kristina Arnold, Head, Department of Art. WKU's next NASAD comprehensive review is scheduled for AY 2024-25.

7. Attach SACS Faculty Roster Form.

WKU Film Faculty Roster.pdf

8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

According to Sean Kinder, WKU's Humanities & Social Science's Librarian, as of April 2020, "The WKU main library houses 85 film-related periodicals/journals (paper and electronic) and 3,130 film-related books. WKU's Visual and Performing Arts Library houses 7,000 leisure DVDs (plus an additional 1,200 pedagogical ones)."

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B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

The film program at Western Kentucky University prides itself on providing majors access to professional-grade filmmaking equipment and facilities. Since 2014, the program has maintained two RED Cinema cameras, as well as a complete professional audio, grip, and lighting package for use on student films. (As described in section D.1.a., the School of Media has budgeted for a second complete equipment package by year four.) In 2018, the program upgraded to LED for better energy efficiency and to keep up with industry trends. The program also provides specialty-use equipment, like a dolly, gimbal, and large light kits for students to request in addition to the standard equipment packages. While two professional equipment packages may seem small for a BFA program, the BFA's "level playing field" philosophy maximizes equipment utilization through a rigid production schedule which provides each student an equal number of shoot days and equal equipment packages. In addition to the professional-grade packages, the film program provides basic camera, lighting, and sound equipment for film and broadcast majors' class assignments.

In fall 2019, the School of Media renovated the third floor of Jody Richards Hall to double the size of the production lab, provide meeting spaces for film students, and establish a post-production hallway for finishing student films. The newly remodeled production lab houses a reconfigurable living room set where students can learn and practice filmmaking in a controlled environment. This lab also has storage for equipment and furniture/props. A production office provides space for students to plan their films, audition their actors, and practice their faculty presentations. A conference room with a 4K television allows students to present their pre-production plans to the film faculty and receive feedback before going into production. The post-production hallway houses an editing lab with twenty 5K iMac computers; a computer ingest station for offloading and backing up footage; four private editing suites, each with a 5K iMac and storage; two finishing suites, each with a 5K iMac, 4K Television, Avid Pro Tools S3 console for sound mixing, and Davinci Resolve for color grading. Jody Richards Hall houses a 250-seat auditorium with a 13'x23' projection screen used for screenings of student work and student- and faculty-lead screening series.

Full-time film faculty are each assigned their own office in their home department of either the School of Media (Jody Richards Hall) or the Department of English (Cherry Hall). Three lecture classrooms (36, 40, and 60 seats) and three general-purpose computer labs (20 seats) are shared by the film program with the other programs (Broadcasting, Journalism, Photojournalism) in the School of Media in Jody Richards Hall, which was built in 2004 specifically for the School and the IT/Telecommunications departments.

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9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

"Students applying for the BFA in Film Production must take 12 hours of Film core curriculum their first year (FILM 100, 201, 202, and 250) and submit to a portfolio review during their second semester seeking admission. Twenty-four students per academic year will be selected for admission into the program based on the quality of their creative portfolio, their professionalism in class and on set, and their scholastic work. After admission, students must follow a prescribed class schedule to ensure completion of the program in four years (including the first year of core courses).

The BFA in Film Production requires 81 semester hours. No course with a grade of "D" or below may be counted toward this major or fulfill prerequisite requirements for any major in the School of Media. The BFA in Film Production does not allow for a minor or second major.

In addition to a portfolio review, students applying for the BFA in Film Production must meet the following academic requirements:
1. Completion of a minimum of 30 hours of coursework applicable to a baccalaureate degree;
2. A minimum overall grade point average of 2.5;
3. Completion of ENG 100 with a grade of 'C' or better and 15 additional hours in the Colonnade Program;
4. Completion of the following courses with a grade of 'C' or better: FILM 100, FILM 201, FILM 202, FILM 250.

Students who are not selected for the BFA in Film Production or opt-out of the portfolio review process will have the option of pursuing the BA in Film if they meet the BA in Film's admission requirements."

Retention standards:

The film faculty's goal for the BFA in Film Production is 100% retention and 100% 4-year graduation rates for students who have been officially admitted into the program. Through a rigorous portfolio and interview process, the faculty will identify 24 students per year with the highest potential for completion of the four-year program and success in the film industry post-graduation. A prescribed 4-year course schedule will guarantee that students graduate on-time as long as they complete their coursework at the "C" level or above.

The BFA's strongest tool in student retention and completion is its use of a cohort system. This means the 24 students admitted each year will take their film classes together, work together on assigned student films, and spend a good deal of time collaborating and studying together outside of class. Studies have shown that students grouped into learning communities or cohorts are more likely to persist and graduate on time (https://www.chronicle.com/article/How-Learning-Communities-Can/245754). WKU as a university is exploring learning communities and multi-term scheduling for freshmen, so a cohort-approach to the BFA is in line with the university's retention plans and goals. Film is collaborative by nature, so this approach to learning comes very easily to most film students. Anecdotally, students in the current Film BA program have moved through their core film classes as unofficial cohorts in the last three years, and we have seen great success in their persistence and retention (92% retention in junior class, 86% retention in sophomore class).

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10. Clearly state the degree completion requirements for the program.

Year 1:
Students in their first year at WKU must take 12 hours of core film curriculum courses (Fall: FILM 100 Film Industry & Aesthetics and FILM 201 Intro to Cinema, Spring: FILM 202 Basic Film Production and FILM 250 Screenwriting I) prior to admission to the BFA in Film Production. The remaining 18-21 hours of first year courses are made up of general education requirements. During the student's second semester they must apply and be accepted into the BFA as outlined in the admission standard's section (B.9.).

Years 2-4 Overview:
The next six semesters feature a mixture of production, critical studies, and practicum film courses, as well as the student's remaining 18 hours of general education requirements. Students must follow a prescribed course schedule in order to complete their degree in four years. (There is some flexibility in general education courses.) Production and practicum courses are built around three short film production cycles (one per year) wherein students function in key "creative" and "technical" positions in films of increasing length and complexity. These production cycles apply concepts learned in lecture/lab courses to actual short films. At the end of each year, students must submit to a portfolio review to ensure they are meeting program expectations.

Year 2:
In the fall semester of year two, students complete 8 hours of bi-term coursework in Directing, Producing, Cinematography, and Production Design. In the second bi-term, students complete 8 hours of practicum credits rotating through positions on each other's films, as described above. These film shoots follow film union standards of scheduling and safety protocols. In the spring semester of year two, students complete 5 hours of post-production coursework (Sound, Editing) completing their first short film, 3 hours of World Cinema critical studies, and 6 to 9 hours of general education requirements.

Year 3:
In the fall semester of year three, students complete 12 hours of bi-term coursework in Screenwriting, Directing, Cinematography, Production Design, and Editing, as well as Film Genres critical studies. In the second bi-term, students complete 3 hours of practicum credits crewing the seniors' thesis films. In the spring semester of year three, students complete 12 hours of practicum credits rotating through positions on each other's second short film.

Year 4:
In the fall semester of year four, students complete 9 hours of practicum courses preparing/filming their thesis films and 3 hours of film capstone preparing for their professional careers. In the spring of year four, students complete 3 hours of post-production practicum finishing their thesis films, 3 hours of Film Theory critical studies, and 9 hours of general education requirements.

Overall:
All told, the BFA in Film Production requires 81 hours (32 hours of production and 11 hours of critical studies including core courses, 35 hours of practicum courses, and 3 hours of capstone). General education courses constitute 39 hours of the required 120 hours for graduation.

All courses in the BFA are required (i.e. no electives) for two reasons: 1) The philosophy behind the program is to prepare students to be "total filmmakers." That is, to demonstrate competency in all areas of filmmaking to maximize employability. 2) The courses that would typically be offered as electives, such as directing or cinematography, are required components of the program.

Students entering the program with either transfer or high school general education credit can either elect for lighter semesters (i.e. 12 vs 15 hours) in which BFA students would typically take general education courses or replace those hours with general elective courses outside the major.

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Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	120	81	0	0

12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

The BFA in Film Production will take four years to complete due to its lock-step scheduling and selective-entry cohort, so any student wishing to transfer to WKU to pursue the BFA in Film Production must bear this in mind. Transfer students wishing to complete a film degree in the 2+2 year model would be better served by choosing WKU's BA in Film degree, which is being revised to allow completion in two years.

However, WKU's film faculty is in early discussions with Bluegrass Community & Technical College to allow graduates of their AFA in Digital Cinematic Arts to bypass the introductory first year of classes and move directly into the first year of the BFA, assuming they are admitted into the program. They could then complete the BFA in Film Production in six semesters. As of October 2019, no articulation agreements have been drafted.

13. List courses under the appropriate curricular headings.

wku_film_bfa_course_template.xlsx

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

NO	Distance learning
NO	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
NO	Technology-enhanced instruction
NO	Evening/weekend/early morning classes
YES	Accelerated courses
YES	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

(Should not be blank)

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

In order to gauge interest for a BFA in Film Production, an online survey was conducted via Qualtrics among current WKU film students and film alumni. Support among both groups for a BFA in Film Production was overwhelmingly positive. Of the 74 current students who responded, 85% (n=63) said they would have chosen a BFA in Film Production if it were an option when they arrived at WKU. Of the 28 alumni responses, 86% (n=24) answered similarly. Sixty-two percent (n=46) of student respondents said they would apply for the BFA in Film Production if it becomes available. Most tellingly, 57% (n=42) of current students and 50% (n=14) of alumni said they would have chosen a Kentucky university other than WKU if it had offered a BFA in Film Production. There is clearly a desire among students seeking an undergraduate degree in film for a BFA in Film Production.

b. Identify the applicant pool and how they will be reached.

The primary pool for the BFA in Film Production will be first-time freshmen, since it will take four years to complete the program. (An exception would be graduates of Bluegrass Community & Technical College's AFA in Film who, if admitted, could transfer in the first year's credits to complete the program in three years.)

WKU's film program maintains an active social media presence on Facebook and Instagram where potential students and interested parties can keep up with student work and happenings in the program. WKU School of Media's website also contains official information about the film program, including information about it's current BA in Film.

The film faculty are developing full-color print brochures outlining the benefits of a BFA in Film Production from WKU that, pending program approval, will be sent to guidance counselors and high school media teachers (see section C.1.d. for feeder programs) across the state to share with interested students. Additional brochures will be shared at recruiting events, such as Governor's School of the Arts College Day and the Journalism Education Association conference, in which the School of Media participates. In addition to guidance counselors, recruiting materials will be shared beyond traditional academic venues, such as regional film festivals, particularly those with a student competition, such as the Nashville Film Festival. This physical brochure will also have a digital equivalent that can be shareable through email.

Each spring, WKU's Potter College of Arts & Letters hosts a Preview Day where perspective students can visit the campus and learn about majors in the college, such as film. Students speak with faculty members and receive group tours of the facilities. The film faculty have also discussed ways in which they can either bring the program to students (via workshops at high schools in the region) or open houses on campus for students to see the facilities and program first-hand who cannot attend Preview Day. Each May, the film program hosts a public student screening open to the community and prospective students.

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c. Describe the student recruitment and selection process.

Students of all experience levels are welcome, but the BFA in Film Production will target its marketing and recruiting efforts to high schools with media programs and performing arts schools (see section C.1.d.). The film program also has a relationship with the Kentucky Governor's School of the Arts, having co-hosted (with WKU School of Media's photojournalism program) the first on-campus one-day workshop specifically for high school Film and Photography students. These high school students are hopeful GSA attendees, some of whom plan on studying film in college. Workshop attendees get a chance to experience WKU's film facilities and interact with WKU film faculty and students. Members of the film faculty also attend GSA's college fairs every summer (at the camp) and fall (at the Youth Performing Art School in Louisville).

Potential students may also schedule faculty-led tours of the film program throughout the year. The film program gives 20-30 individual tours to potential students and their families per year. Students meet one-on-one with faculty who discuss WKU's film program and provide a personalized tour of the facilities. Starting in summer 2021, the School of Media will host weeklong summer intensives for its programs, including film, for high school sophomore, juniors, and seniors. Attendees will have a chance to experience film at WKU firsthand and potentially choose to attend WKU for college.

d. Identify the primary feeders for the program.

Kentucky Governor's School of the Arts, Louisville's Youth Performing Arts School and duPont Manual High School, Brentwood High School (Nashville), Bluegrass Community & Technical College (AFA in Film transfers)

e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

Any Kentucky student wishing to stay in-state and pursue a BFA in film must choose WKU, since no other university in Kentucky offers a BFA in Film Production, thus providing a net increase in total student enrollments. Because the BFA in Film Production is a rigorous, pre-professional degree intended for someone seeking a career in the film industry, it is expected the majority of students applying for the BFA in Film Production will attend WKU specifically to enroll in this program (opposed to choosing this major after having already been admitted to WKU).

f. Project estimated student demand for the first five years of the program.

Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2020-2021	0	24
2021-2022	0	48
2022-2023	24	72
2023-2024	24	72
2024-2025	24	72

2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

With the expansion of the film industry into new markets, such as online streaming, nearly all projections for job growth at the national, state, and regional level are positive. The positions listed below are considered "high skill" jobs, skills which the BFA in Film Production is designed to provide through its rigorous curriculum.

Based on data from the Bureau of Labor (https://www.bls.gov/ooh/) and Kentucky's Center for Statistics (https://kcews.ky.gov/KYLMI), students can expect the following openings, salaries, and job growth at the regional, state, and national level:

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Type of Job: Producers and Director
Regional Openings, Wage, and 10 Year Growth: 45, $49,175, 11.11%
State Openings, Wage, and 10 Year Growth: 1068, $50,632, 8.30%
National Openings, Wage, and 10 Year Growth: 152400, $71,680, 5.00%

Type of Job: Film and Video Editors and Camera Operators
Regional Openings, Wage, and 10 Year Growth: No data
State Openings, Wage, and 10 Year Growth: 115, $49,447, 17.40%
National Openings, Wage, and 10 Year Growth: 69200, $58,990, 11.00%

Type of Job: Writers and Authors (Screenwriters)
Regional Openings, Wage, and 10 Year Growth: No data
State Openings, Wage, and 10 Year Growth: 1217, $48,181, 4.20%
National Openings, Wage, and 10 Year Growth: 123200, $62,170, 0.00%

Type of Job: Art Directors
Regional Openings, Wage, and 10 Year Growth: No data
State Openings, Wage, and 10 Year Growth: 573, $80,373, 1.00%
National Openings, Wage, and 10 Year Growth: 101000, $92,780, 1.00%

Type of Job: Broadcast and Sound Engineering Technicians
Regional Openings, Wage, and 10 Year Growth: 30, $35,186, 6.67%
State Openings, Wage, and 10 Year Growth: 341, $39,827, 12.00%
National Openings, Wage, and 10 Year Growth: 144300, $43,660, 8.00%

Type of Job: International Alliance of Theatrical Stage Employees (IATSE) Member*
Average wage: Crew member working television shows $84,000 + benefits
Average wage: Crew member working 10 commercials per month $72,000 + benefits
Average wage: Crew member working independent feature films $50,000 + benefits

*Since state and national labor data does not reflect a large percentage of crew positions in the film and television industry and since most major motion pictures, television shows, and commercials are covered by union contracts, Peter Kurland, Business Agent for International Alliance Theatrical Stage Employees (IATSE) Local 492 (Nashville office for the film crew union), provided some additional data about union crew member salaries in the region.
****

Regional (R)
Regional Growth Projections (RGP)
State (S)
State Growth Projections (SGP)
National (N)
National Growth Projections (NGP)

Producers and Directors
Average Wage $49,175(R) 11.11% (RGP) $50,632(S)8.30%(SGP) $71,680(N) 5.00% (NGP)
# of Openings 45(R) 50 (RGP) 1,068 (S) 1,157(SGP) 152,400(N) 159,600 (NGP)

Film and Video Editors and Camera Operators
Average Wage No data(R) No data (RGP) $49,447 (S) 17.40% (SGP) $58,990 (N) 11.00% (NGP)
# of Openings No data (R) No data (RGP) 115 (S) 135 (SGP) 69,200 (N) 77,100 (NGP)

Writers and Authors (Screenwriters)
Average Wage No data (R) No data (RGP) $48,181 (S) 4.20% (SGP) $62,170 (N) 0.00% (NGP)
# of Openings No data (R) No data (RGP) 1,217 (S) 1,268 (SGP) 123,200 (N) 123,100 (NGP)

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Art Directors
Average Wage No data(R) No data (RPG) $80,373 (S) 1.00% (SGP) $92,780 (N) 1.00% (NGP)
# of Openings No data (R) No data (RPG) 573 (S) 579 (SGP) 101,000 (N) 101,900 (NGP)

Broadcast and Sound Engineering Technicians
Average Wage $35,186 (R) 6.67% (RGP) $39,827 (S) 12.00% (SGP) $43,660 (N) 8.00% (NGP)
# of Openings 30 (R) 32 (RGP) 341 (S) 382 (SGP) 144,300 (N) 155,800 (NGP)

International Alliance of Theatrical Stage Employees (IATSE) Member*
Average Wage
Crew member working television shows $84,000 + benefits
Crew member working 10 commercials per month $72,000 + benefits
Crew member working independent feature films $50,000 + benefits

3. Academic Disciplinary Needs:

Program proposal is not in response to changes in academic disciplinary need.

a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

YES

Please identify similar programs in other SREB states and in the nation.

The top 25 film programs in the nation are regularly tracked by the Hollywood Reporter (https://www.hollywoodreporter.com/lists/top-25-american-film-schools-ranked-1231343). The top 5 are consistently: University of Southern California; New York University; University of California, Los Angeles; American Film Institute; and Columbia University.

Five of Hollywood Reporter's top 25 film programs are in the SREB: University of North Carolina School of the Arts; University of Texas in Austin; Florida State University; Ringling College of Art + Design in Sarasota; and Savannah College of Art and Design.

The programs on this list have a long and storied history, so they are considered aspirational programs rather than direct competitors to WKU's proposed program. However, of the list, FSU is closest in spirit and design to WKU's BFA in Film Production, particularly in regard to the "level playing field" philosophy and the allocation of resources and shooting parameters. Two of WKU's film faculty attended FSU's MFA in Film Production and were able to witness the success of this approach firsthand and have adapted it to WKU's program.

Other film BFAs in the SREB include:
FL: University of Central Florida, FSU (see above), Ringling College of Art + Design
GA: Savannah College of Art and Design
MD: Maryland Institute College of Art
MS: University of Mississippi
NC: UNC School of the Arts, Western Carolina University
OK: Oklahoma City University
TN: Lipscomb University and Belmont University (private, Christian universities in Nashville)
TX: Texas State, Sam Houston State University, Southern Methodist University
VA: Virginia Commonwealth University, Virginia Tech

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b. Our records indicate the following similar programs exist at public institutions in Kentucky.

---- No Programs Exist----

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

YES

Please provide a brief summary of additional resources that will be needed to implement this program over the next five years.

The BFA in Film Production will require additional equipment and software licenses, an additional student worker, and an additional faculty line in the area of Production Design. The details of each expense can be found in the cost/funding worksheet, but generally:

In order for the BFA in Film Production to operate at full capacity, two complete equipment packages (camera, lighting, grip, sound) will be required by year four (when two films are shooting simultaneously). The School of Media has budgeted (from its annual operational budget and course fees) to complete the second package, as well as upgrade the current camera package and editing computers, across a five year span: Year One (Camera Accessory Upgrades for Current package), Year Two (Second Lighting/Grip, and Sound Packages), Year Three (Second Camera Package), Year Four (Camera Accessory Upgrades for Second Package), Year Five (Editing Lab Computer Upgrade (splitting half of cost with Broadcasting program)).

An additional student worker will be required to manage the post-production hallway. The School of Media currently employs several student workers across four disciplines (including three students for film), so an additional worker will be allocated from the School's annual student worker budget. Additional editing and sound software licenses will be required; however, the School of Media has already licensed the required additional software as part of its post-production renovation. The recurring annual costs will be split with the Broadcasting program and be charged against the School's operational budget and course fees.

Finally, an additional tenure-track film faculty line with a specialization in Production Design will be required to cover courses in the proposed BFA in Film Production, as well as the current BA in Film. In AY 2018-2019, WKU undertook a campus-wide Comprehensive Academic Program Evaluation (CAPE) assessing all academic programs on campus. The BA in Film major was one of fifteen academic programs to receive a Grow/Enhance recommendation. As a way to support these Grow/Enhance programs, the university has set aside funding in its new Resource Allocation, Management, and Planning (RAMP) budgeting model for a Strategic Investment Fund. This Fund will support this new faculty line.

2. Will this program impact existing programs and/or organizational units within your institution?

YES

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Please describe the impact.

Western Kentucky University wishes to offer a BFA in Film Production alongside its current liberal arts BA in Film degree. The BFA in Film Production will be an intensive pre-professional program which gives students numerous opportunities to make films without taking non-film courses concurrently. This option would be good for a student pursuing a career in the film/television industry in narrative filmmaking. The BA in Film is an open-ended liberal arts program giving students a wide breadth of knowledge through film electives and minor/double major options. This option would be good for a student who has a general interest in film, wants the option of double majoring, or intends to continue on to graduate school. Since many arts programs (including WKU's own Visual Art, Performing Arts, and Music programs), offer both degree types (pre-professional and liberal arts), there is precedent for the two programs to coexist at the same university.

Students wishing to pursue either the BFA in Film Production or the BA in Film will take a common core of 12 hours their first year. Resources allocated for these courses (i.e. computers, equipment, faculty, etc.) will be shared across programs and should have no additional cost impact (unless the average 60 incoming students per year trends upward). Beyond the first year, BA students have the option to take some BFA production courses, like editing and sound, as either required or elective courses, but their presence in these classes should not incur any significant additional costs. The programs will maintain separate equipment packages for student use. The BAs will utilize the equipment from the shared broadcasting/film checkout room. The BFA equipment costs are outlined in the cost/funding worksheet.

Maintaining a pre-professional BFA degree alongside a liberal arts BA degree will also allow the latter to become even more interdisciplinary after moderate program revisions expanding its potential elective pool while decreasing overall required hours. Since the BA will require a second major or multiple minors, students will become true campus citizens and increase credit-hour production in related fields, like computer animation, or seemingly unrelated fields, such as political science or business administration. In addition, the film program (both BA and BFA) is exploring ways to collaborate with the Department of Art and its burgeoning Computer Animation program, since both disciplines focus on visual storytelling and the technology used in computer animation can also be used for visual effects in live-action films.

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3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

Western Kentucky University has made significant investments in the film program since its inception in 2010. These investments have made a meaningful impact in the lives of film students for the last ten years, whom receive access to industry-experienced faculty and professional-grade filmmaking equipment and facilities. In order to make this impact as equitable as possible, the film faculty ascribe to a “level playing field” philosophy regarding film facilities and equipment access. This means that parameters such as shooting days, running time, and equipment allocation are assigned based on course learning objectives, rather than first-come, first-serve or a model where the student with the most money makes the best film.

From a pedagogical perspective, this means that each student is afforded equal access to resources necessary to complete their education. From a budgetary perspective, this helps create maximum utilization of the program’s said resources, as classes and productions are strictly scheduled to make sure every student can use them. However, despite the fact that the BA in Film is currently running at near capacity, equipment and facility utilization is not 100% due to the limit of film production courses that can fit into a liberal arts degree. There are many days throughout the academic year when equipment and facilities are not being used.

In addition to any new revenue a BFA in Film Production will create, the new program, with its increase in total hands-on courses and its emphasis on applied learning through making films, will be designed so that current facilities and equipment will be utilized nearly every day of the academic year. The relatively small cost of an additional faculty line and additional equipment will maximize the university’s investment while allowing for nearly double the total number of students across both majors (estimated 240 total). As the cost/funding worksheet demonstrates, new revenue tuition and fees ($759,303/year from 72 admitted students’ tuition and program fees) combined with current revenue ($614,452/year from 60 seeking students’ tuition and course fees) minus costs of $555,342/year yields a net positive of $818,413/ year (or roughly $4 million every five years once the program is operating at full capacity).

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A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Internal					
Allocation :	0	0	0	0	0
Reallocation :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Student Tuition					
New :	253101	506202	759303	759303	759303
Existing :	614452	614452	614452	614452	614452
Narrative Explanation/Justification :	New) Students accepted into the BFA in Film Production (24 per year) were multiplied by WKU's current yearly tuition rate minus mandatory student fees which must be allocated to units benefitting ($10,802 tuition - 7% fees = $10,046). Additionally, a proposed $500 per year program fee covering course materials and equipment was assessed for each BFA student. (Existing) Students seeking admission (which WKU currently averages 60 with its current BA in Film) were multiplied by WKU's current yearly tuition rate minus mandatory student fees which must be allocated to units benefitting ($10,802 tuition - 7% fees = $10,046). Additionally, $195 in course fees ($65 x 3 courses) per year covering course materials and equipment were assessed for each seeking student.				
Total					
New :	$253,101	$506,202	$759,303	$759,303	$759,303
Existing :	$614,452	$614,452	$614,452	$614,452	$614,452
Total Funding Sources :	$867,553	$1,120,654	$1,373,755	$1,373,755	$1,373,755

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Staff: Executive, administrative, and managerial					
New :	0	0	0	0	0
Existing :	50610	50610	50610	50610	50610
Other Professional					
New :	0	0	0	0	0
Existing :	28350	28350	28350	28350	28350
Faculty					
New :	84000	84000	84000	84000	84000
Existing :	324872	324872	324872	324872	324872
Graduate Assistants (if master's or doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Student Employees					
New :	4350	4350	4350	4350	4350
Existing :	13050	13050	13050	13050	13050
Narrative Explanation/Justification :	The School of Media currently employs 3 student workers ($7.25/hour x 20 hours x 30 weeks) to manage the equipment room and production lab. The BFA in Film Production will require a fourth worker to manage the post-production hallway.				
Equipment and Instructional Materials					
New :	35000	32000	30000	35000	30000
Existing :	3000	3000	3000	3000	3000
Narrative Explanation/Justification :	The current BA in Film budgets $1000/year for expendable materials, such as gels, tape, batteries, dry-erase markers, etc. Since the number of films produced in a year will triple, it is expected that these expendable costs will triple. Although the Film program has built up its equipment inventory over the years, the BFA will require an additional equipment package (camera, lighting, grip, sound). Since the package will not be needed until year four (when multiple shoots are happening simultaneously) it can be built up over time: Year One (Camera Accessories for current package), Year Two (Additional Lighting/Grip, and Sound Packages), Year Three (Additional Camera Package), Year Four (Additional Camera Accessories), Year Five (Editing Lab Computer Upgrade [splitting half of cost with Broadcasting program]).				
Library					
New :	0	0	0	0	0
Existing :	375	375	375	375	375

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	The School of Media's current library budget is $1500/year. Since this budget is shared by four programs in the School of Media, it was divided by 4. This budget is sufficient for the BFA in Film Production's library needs. Additional funding is not required.				
Contractual Services					
New :	2479	2479	2479	2479	2479
Existing :	5324	5324	5324	5324	5324
Narrative Explanation/Justification :	The School of Media currently licenses Adobe Creative Cloud, Avid Media Composer, and Avid Pro Tools post-production software through an annual subscription fee. Since this software is shared with the Broadcasting program in a 21 seat computer lab, the costs were assessed as follows: Creative Cloud ($185.35/year x 21 / 2), Avid ($83.62/year x 21 / 2), Pro Tools ($85.32/year x 21 / 2). Additionally, the Film program subscribes to Final Draft screenwriting software for a 21 seat computer lab at a cost of $1604/year ($76.40 x 21). Additional editing computers have been designated for the BFA in Film Production. The year software subscription costs were calculated as follows: Creative Cloud ($185.35/year x 7), Avid ($83.62/year x 7), Pro Tools ($85.32/year x 7).				
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	The School of Media provides a student advisor for students prior to admittance into a SoM major. This cost has already been accounted for under Other Professional staff.				
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Faculty Development					
New :	0	0	0	0	0
Existing :	6432	6432	6432	6432	6432
Narrative Explanation/Justification :	The School of Media's current faculty development budget is $25,729/year. Since this budget is shared by four programs in the School of Media, it was divided by 4. This budget covers faculty conference registration and travel costs, as well as advanced training opportunities such as workshops and masterclasses.				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	N/A				
Other					
New :	0	0	0	0	2500
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	The School of Media intends to seek accreditation of the BFA in Film Production program by the National Association of Schools of Art & Design (NASAD) accrediting body. By year five, enough students will have graduated to begin the accrediting process. NASAD charges $500 in application fees and recommends budgeting $1000 per evaluator (x2) for a site visit. There is potential to share this cost with the Department of Art, since they are also accredited by NASAD, which will also be due for accreditation in five years.				
Total					
New :	$125,829	$122,829	$120,829	$125,829	$123,329
Existing :	$432,013	$432,013	$432,013	$432,013	$432,013
Total Budget Expenses/Requirements :	$557,842	$554,842	$552,842	$557,842	$555,342
Grand Total					
Total Net Cost :	$309,711	$565,812	$820,913	$815,913	$818,413

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Full-Proposal - Assess: Program Review and Assessment

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1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

Student Learning Outcome #1: Perform the roles of key Below-the-Line (Technical) personnel on a film crew, including operating equipment, safely and efficiently.

Student Learning Outcome #2: Utilize Above-the-Line (Creative) skills to create visually appealing short films with compelling narratives.

Student Learning Outcome #3 Demonstrate an understanding of the structures and means of production in studio (Hollywood) and independent film production.

Student Learning Outcome #4: Critically evaluate a film or solve a production problem in an organized, coherent fashion.

Student Learning Outcome #5: Communicate effectively, orally and through the written word, on set and in film analysis.

Student Learning Outcome #6: Coordinate and supervise a crew/team, and, in turn, serve as a collaborative crew/team member.

Measurement Instrument 1: DIRECT measure of SLO #2: In order to be admitted into the BFA in Film Production, student portfolios will be assessed via standardized VALUE (LEAP) rubric on the quality of creative work created during their first academic year. At the end of each academic year, portfolios will be resubmitted and reevaluated to ensure the quality of student work is commensurate with class status.

Measurement Instrument 2: DIRECT measure of SLO #3: Students accepted into the BFA in Film Production will be administered a written multiple-choice pre-test about key skill areas and the film industry. Faculty will submit ten questions from their area of specialty (directing, cinematography, screenwriting, producing, production design, editing, sound) as well as twenty general questions about the film industry for a total pool of 90 questions. From that pool, three questions per specialty and four questions about the film industry (25 total) will be administered in a timed exam. In the capstone class, a follow-up post-test will also be administered.

Measurement Instrument 3: DIRECT measure of SLO #1: Students will be administered timed practical exams on below-the-line crew positions (camera, lighting, sound, script supervising) using their associated equipment.

Measurement Instrument 4: DIRECT measure of SLO #1, 2, 4, 5, 6: Students will be evaluated via standardized VALUE (LEAP) rubric by the professor of record on their job performance both in preparation and execution of their assigned position and associated duties.

Measurement Instrument 5: DIRECT measure of SLO #2, 4, 5, 6: Students in above-the-line practicums will present to the film faculty in a formal setting before each film they undertake. Students are expected to outline their plan for making their films, effectively communicating how they creatively solved the problems associated with their short film in a way that is collaborative, cohesive, and appropriate to the director’s vision. Students are evaluated by the faculty on both the content and the delivery of these presentations using a standardized VALUE (LEAP) rubric.

Measurement Instrument 6: INDIRECT measure of SLO #3: In addition to the capstone post-test, students will be given an online exit survey to assess their professional readiness and educational satisfaction. See section E.4 for exit survey questions.

Measurement Instrument 7: INDIRECT measure of SLO #2: The quality of creative work will be assessed students’ senior year via online standardized VALUE (LEAP) rubric by an outside advisory board of film professionals.

Measurement Instrument 8: INDIRECT measure of SLOs #1, 2, 4, 5, 6: Students will evaluate their peers’ work on set in the areas of job performance, attitude, punctuality, reliability, and safety via online feedback form.

b. When will the components be evaluated?

Measurement Instrument 1: Students must submit to a portfolio review in their second semester at WKU. At the end of each academic year, portfolios will be resubmitted and reevaluated.

Measurement Instrument 2: Students will be administered a pre-test the fall semester of their sophomore year. Students will be administered the post-test the fall semester of their senior year.

Measurement Instrument 3: Students will be assessed in classes FILM 202 (freshmen), FILM 291 (sophomores), FILM 391 (juniors), FILM 491 (seniors).

Measurement Instrument 4: Students will be assessed in classes FILM 202 (freshmen), FILM 291 & 292 (sophomores), FILM 391 & 392 (juniors), FILM 491 & 492 (seniors).

Measurement Instrument 5: Students will be assessed in classes FILM 292 (sophomores), FILM 392 (juniors), FILM 492 (seniors).

Measurement Instrument 6: Students will be administered the exit survey the spring semester of their senior year.

Measurement Instrument 7: Student work will be evaluated by an outside advisory board the spring semester of their senior year.

Measurement Instrument 8: Students will be assessed in classes FILM 202 (freshmen), FILM 291 & 292 (sophomores), FILM 391 & 392 (juniors), FILM 491 & 492 (seniors).

c. When will the data be collected?

Data will be collected throughout the semester the learning outcomes are assessed, as outlined in section 1.b. Collected data will be compiled at the end of each semester.

d. How will the data be collected?

Measurement Instruments 1, 4, and 5 will be collected through an online rubric form and anonynized. Measurement Instrument 2 will be administered through physical multiple-choice exams. The results will be anonymized and compiled electronically. Measurement Instrument 3 will be administered via physical rubric checklist. The results will be anonymized and complied electronically. Measurement 6, 7, and 8 will be collected through an online Qualtrics survey and anonymized. The anonymized results of feedback for Measurements 7 and 8 will be tabulated and distributed to the individual student for their own self-improvement, as well as retained by faculty for program assessment.

e. What will be the benchmarks and/or targets to be achieved?

Measurement Instrument 1: Students must score in the top 30 applicants in order to be considered for an interview for the BFA in Film Production. For each subsequent annual review, students are expected to score at least 80% or higher across their entire portfolio.

Measurement Instrument 2: Scores for the pre-test will set a baseline, but since these students have performed well enough to be accepted into the BFA in Film Production scores for the pre-test should be higher than 60%. Scores for the senior-level post-test should be 80% or higher.

Measurement Instrument 3: In order to perform the job being tested and use the associated equipment on an actual student film, the student must receive a 90% or above on the scoring rubric. Since it is required that students perform the jobs being tested as part of the film program, students may retake the exam until they receive a 90% or higher. At the end of the program, students should be able to complete the practical exam at 90% or higher, the first time the exam is taken.

Measurement Instruments 4 & 5: Since the evaluations constitute the majority of the students' final grade in the course, students must average a 70% or higher per position to receive a C or better in the course and be counted toward the major.

Measurement Instrument 6: Since the survey is informational in nature, it will only provide data for broad areas of need or improvement. The goal is at least 80% highly satisfied with undergraduate education.

Measurement Instrument 7: Since these assessments are done at the senior level, students should be achieving 80% or higher in their professional evaluations.

Measurement Instrument 8: By program's end, students should be achieving 80% or higher in their peer evaluations.

f. What individuals or groups will be responsible for data collection?

Measurement Instrument 3 will be administered by trained student workers, Measurement Instrument 7 will be completed by an outside advisory council, and Measurement Instrument 8 will be completed by students' peers. Film faculty will ultimately be responsible for collecting for courses they teach, and the film program coordinator will compile and anonymize this data.

g. How will the data and findings be shared with faculty?

Data for each instrument will be anonymized and compiled electronically via secure film program database. Annual anonymized instrument results will be distributed to film faculty via spreadsheet.

h. How will the data be used for making programmatic improvements?

Areas where students consistently score poorly will be evaluated for rubric and/or teaching effectiveness and improvement. In both cases, Western Kentucky University's Center for Innovative Teaching and Learning (CITL) will be consulted for improved rubric design or teaching/delivery methods.

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2. What are the measures of teaching effectiveness?

Western Kentucky University evaluates teaching effectiveness through two primary instruments: end-of-semester student evaluations via online surveys (SITEs) and department head classroom observation. The first measure is included in faculty tenure/promotion materials for examination by the tenure and promotion committee on an annual basis until tenure. The second is included in annual pre-tenure faculty evaluations. Faculty may also request peer observation from the Center for Innovative Teaching and Learning for improvement in the classroom (see section E.2.).

SITE evaluations ask the following questions and provide faculty their mean and median scores, as well as mean and median scores for the department and college:

1. What is your expected grade in this course?
2. My instructor is organized and well-prepared for class.
3. Expectations for course assignments are clear and specific.
4. Assignments/exams are aligned with course learning objectives.
5. This course has effectively challenged me to think.
6. My instructor provides constructive feedback.
7. Overall, my instructor is effective.
8. I have learned a lot in this course.
9. My instructor treats me fairly with regard to race, age, sex, religion, national origin, disability, gender identity, and sexual orientation.

Students can also provide anonymous written feedback.

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Faculty who consistently score below the departmental or college means on SITE evaluations will be encouraged to attend workshops provided by WKU's Center for Innovative Teaching and Learning. According to CITL's website (https://www.wku.edu/citl/mission/), "CITL…offers an extensive array of professional development opportunities for the university community centered on teaching effectiveness, student learning and engagement, and the use and assessment of high impact practices. These training opportunities are delivered via professional learning communities, seminars, webinars, workshops, and more personalized training events for departments and units."

CITL also coordinates Peer Observation which "can enhance teaching practices, build collaboration and collegiality, and improve the quality of instruction and educational experience for our students."

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4. What are the plans to evaluate students' post-graduate success?

The faculty of the BFA in Film Production plan to evaluate students' post-graduate success via a series of surveys at senior capstone, as well as the 1-, 3-, and 5-year-out mark.

Students in the senior capstone class will be given an online exit interview where they will answer the following questions based on their anticipated success post-graduation:

1. What is your expected job 1-, 3-, and 5-years-out?
2. What is your expected annual salary 1-, 3, and 5-years-out?
3. What is your current satisfaction with your undergraduate education?

Alumni will be provided similar, but more detailed questions at the 1-, 3-, and 5-years-out mark:

1. How would you describe the relationship between your current job and your desired career? (Highly Related, Related, Unrelated)
2. How satisfied are you with your current job? (Highly satisfied, Satisfied, Unsatisfied)
3. How would you describe the relationship between your field of study and your current job? (Highly Related, Related, Unrelated)
4. What field best describes your current job? (Film Production, Film Post-Production, Film Development, Other [fill in blank])
5. Please select your annual salary range: (below $20,000, $20,000-$29,999, $30,000-$39,999, $40,000-$49,999, $50,000-$59,999, $60,000 or more)
6. What is your current satisfaction with your undergraduate education? (Highly Satisfied, Satisfied, Unsatisfied)

In addition to alumni surveys, film faculty will cross-reference student employment via social media and professional websites, such as LinkedIn. A WKU Film alumni newsletter, i.e. alumni "brag sheet", will be sent out regularly to update the alumni community to post-graduate successes. As is common in these newsletters, alumni will likely self-report successes because they want fellow alumni to know about their accomplishments, hence the term "brag sheet."

Finally, the Kentucky Center for Statistics' Postsecondary Feedback Report (https://kystats.ky.gov/Reports/Tableau/2018_PSFR) provides employment and earnings data based on degree level, institution, and CIP Code five years after graduation. This report will provide a general metric for tracking employment success for alumni choosing to stay and work in Kentucky.

PROPOSED PROGRAM SUMMARY

Institution: University of Louisville
Program Name: Management Major
Degree Designation: Bachelor of Science in Business Administration

Program Description:

The Management Major is a 120-credit hour undergraduate degree that prepares versatile, broadly educated graduates to accelerate their professional success as managers. In additional to the core business courses required of all BSBA students, the management major curriculum covers a range of management functions: project management, human resources management, team management, and operations management. In addition, students will develop basic proficiency in business analytics (managerial analytics course); add functional knowledge in another business domain to support initial job placement (9-credit hour business concentration); and gain relevant hands-on experience (a capstone project and a required internship).

CIP Code: 52.0201
Credit Hours: 120 credit hours for BSBA
(Tentative) Institutional Board Approval Date: March 2020
Implementation Date: Fall 2020

Student Demand

	Year 1	Year 2	Year 3	Year 4	Year 5
Incremental New	10	23	39	59	84
Current Students	40	120	240	400	560
Total	**50**	**140**	**279**	**459**	**644**

There is great student demand for a Management Major. Dr. Nora Scobie, the Assistant Dean of Undergraduate Advising for the College of Business (COB), reports that Management is the most requested major by external transfer students, and that we currently have more than 165 undecided business majors, largely due to a lack of the desired management major.

Survey results from a September 2018 survey of College of Business students noted that of the 200 respondents, 71% would be interested in the management major as a potential degree option: 16% would definitely change from their current major to Management; 34% would be interested in double majoring; and 23% would consider changing their major to Management. 60 respondents (or 30%) stated they selected their current major only because Management was not an option.

We are estimating an enrollments based on two different pools of students. The first is incremental new students to UofL. The second, and much larger of the two, is students drawn from the existing student body, especially undecided COB and pre-business majors.

We are projecting an estimate of 10 incremental incoming students in Year 1 and then growing by 25% per year (i.e., Year 1: 10, Year 2: 13, Year 3: 16, Year 4: 20, Year 5: 25). Retaining students for four years of the program (FY, SO, JR, SR) will give us total incremental new student enrollment of Year 1: 10, Year 2: 23, Year 3: 39, Year 4: 59, and Year 5: 84.

We also are estimating that given the backlog of demand for the major, existing students will declare a management major in a stepwise manner, growing by an additional "cohort" of 40 students each year until we reach the enrollment levels we were at in 2008. (Year 1: 40, Year 2: 80, Year 3: 120, Year 4: 160, Year 5: 160). Retaining students for four years of the program (FY, SO, JR, SR) will give us an enrollment of existing students of Year 1: 40, Year 2: 120, Year 3: 240, Year 4: 400, Year 5: 560).

Market Demand

There is high employer demand for a Management Major. The 2017 National Association of Colleges and Employers (NACE) Job Outlook Report states that 77% of employers plan to hire Management or Business Administration majors in the coming year. The only college major that is more sought after is Finance (at 78%).

Local employer demand is strong, too. Even though we do not offer a management major, in the past year, local employers posted more than 400 full-time jobs and more than 75 internships at the Ulmer Career Center looking for management majors.

Regional demand for management majors is on the rise. Management job postings in CareerTrak, which covers Louisville and the surrounding region, increased from 287 in 2012 to 576 in 2016.

The Bureau of Labor Statistics reports that employment in management occupations is projected to grow 8% from 2016 to 2026, about as fast as the average for all occupations, which will result in more than 800,000 new jobs. Also, the median annual wage for management occupations was $102,590 in May 2017, which was the highest wage of all the major occupational groups.

The management major will not replace any programs on campus. It will supplement the offerings in the College of Business, giving business students another choice of major.

Employer Demand

Type of Job	State	Regional KY, IN, OH, TN	National
Administrative Services Manager Avg. Salary: $96,180 10th - 25th PCTL: $55,000 - 71,850			
# of Annual Openings/Total Jobs	240 / 2,570	2,310 / 24,130	26,200 / 281,700
Projected Job Growth	↑ 10% (+260 jobs)	↑ 13% (+3,140 jobs)	↑ 10% (+28,500 jobs)
General & Operations Manager Avg. Salary: $123,460 10th - 25th PCTL: $44,510 - 65,590			
# of Annual Openings/Total Jobs	2,530 / 27,840	17,720 / 189,010	210,700 / 2,263,100
Projected Job Growth	↑ 8% (+2,100 jobs)	↑ 10% (+18,040 jobs)	↑ 9% (+210,700 jobs)
Human Resources Manager Avg. Salary: $113,300 10th - 25th PCTL: $66,870 – 85,750			
# of Annual Openings/Total Jobs	140 / 1,530	1,110 / 11,570	12,400 / 136,100
Projected Job Growth	↑ 8% (+120 jobs)	↑ 12% (+1,380 jobs)	↑ 9% (+12,300 jobs)
Sales Manager Avg. Salary: $124,200			

10th - 25th PCTL: $58,940 – 84,790			
# of Annual Openings/Total Jobs	340 / 3,560	3,000 / 30,660	36,300 / 385,500
Projected Job Growth	↑ 8% (+270 jobs)	↑ 10% (+3,070 jobs)	↑ 7% (+28,900 jobs)

Data gathered from the Bureau of Labor Statistics' Occupational Outlook Handbook and Occupational Employment Statistics; and the Projections Managing Partnership's State Occupational Projections (2016-2026).

NOTE: Because national salary data reflects all employees in an occupation, and not just entry-level, we have also included the 10th and 25th percentile figures as a potential indicator for entry-level salaries.

Academic Demand

Not Applicable. This program is not designed for preparation for graduate study.

Unnecessary Duplication

Similar Programs	Comparison of Objectives/Focus/ Curriculum to Similar Programs	Comparison of Student Populations	Access to/Demand for Existing Programs	Feedback from Other Institutions
Western Kentucky University Management	*WKU offers four distinct tracks within the management major: business administration, entrepreneurship, human resource management, and international business. UofL's program is most similar to the business administration track. Key differentiators are the 9 credit hours in a focused functional business area and a required internship.*	*UofL serves a very large and diverse, and in many cases, financially challenged population in the largest metropolitan area within the Commonwealth. Students who cannot leave the area in order to attend one of the similar programs in the state can be served by UofL.*	*Even with multiple universities offering a management major, there is sufficient demand from current students at UofL and in the city of Louisville. By offering a management major in the biggest and most diverse city in the Commonwealth, we would be greatly expanding educational access for young people and non-traditional students living and working in the city of Louisville, enabling them to earn a degree that can help them advance their professional careers.*	*We contacted Dr. Bob Hatfield, Interim Chair of the Management Department at WKU. He said that all business colleges in the state should have majors or substantial offerings in management. He concluded, "I see no competitive reason that UofL should not have a Management major."*
Murray State University Management	*Murray State offers a degree (area) in management, with a mix of courses focused on managing people and processes. UofL's management*	*See above.*	*See above.*	*We contacted Dr. Heath Keller, Chair of the Management Department at Murray State. We are awaiting his response.*

	major curriculum is very similar. Key differentiators are the course in business analytics, 9 credit hours in a focused functional business area, and a required internship.			
Eastern Kentucky University Management	*EKU offers four concentrations within the management major: general management, entrepreneurship, and human resource management. UofL's program is most similar to the general management concentration. Key differentiators are that whereas EKU allows for 12 credit hours of MGMT electives, UofL's program requires a course in business analytics, 9 credit hours in a focused functional business area, and a required internship.*	*See above.*	*See above.*	*We contacted Mike Roberson, Chair of the Management, Marketing, and International Business Department at EKU. He said, "Given the greatly increasing demand by students for our Management program, I do not believe either of our programs would negatively impact the other."*
Morehead State University BBA Management	*Morehead State offers a major (track) in management. The program requires only a small number of core management courses, but then couples them with guided electives in management, international management, or healthcare management. Key differentiators are the course in business analytics, a course in project management,*	*See above.*	*See above.*	*We contacted Dr. Michael Harford at Morehead State University. We are awaiting his response.*

	and a required internship.			

Cost

Projected Revenue over Next Five Years	$2.5 million
Projected Expenses over Next Five Years	$1 million

Will additional faculty be needed? Yes or No

In the first year, we will be able to cover the program with existing faculty. As the program grows, we estimate needing approximately one new faculty member for every 60 new incremental students to the College of Business. These salaries are included in our budget projections.

Provide a budgetary rationale for creating this new program:

The program will be self-sustaining and will be funded by tuition revenues, as stipulated by UofL's new responsibility-based budget model. Tuition revenue generated by the program will more than offset the faculty salaries and associated expenses. There will be some impact on program demand for other majors in the College of Business, especially from Marketing and Undecided majors. We will internally reallocate resources between departments to cover this shift in student enrollments.

Additionally—although not directly affecting the budget—this program will better serve our UofL students whose interests and career are aligned with management careers. As such, we are being more effective at meeting the part of our mission of "preparing students for responsible and rewarding careers."

COVID-19 Question: UofL – Bachelor of Business Administration Program

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program?

Response from UofL:

In response to CPE's question regarding COVID-19: The BBA degree will be offered face-to-face and online The University is fully engaged in preparedness planning for the fall 2020 semester and feels confident that a hybrid model of instruction can be easily and quickly implemented. This academic program will be integrated into the university's strategic management plan and academic program portfolio. We do not anticipate that COVID-19 will inhibit our ability to recruit students into the BBA program. Enrollment and the program budget will be closely monitored. If budgetary concerns arise as a result of under-realized enrollment goals due to unforeseen issues related to COVID-19, they will be managed by the College of Business.

Course Title (CIP)

Degree Program Core Courses (i.e., Courses required by ALL students in the Major--includes Premajor or Preprofessional courses)

Course Prefix	Course #	Course Title	Course Description	Type of Course: program core (C) or pre-major/ pre-professional (P)	Credit Hours	Existing (E) or New (N) Course
CAMP	100	Campus Culture Business Students	Students will gain an understanding of various parts of the University and the College of Business--the administration, the faculty, the learning resources, support services, extra-curricular activities--and how these parts contribute to the learning process and academic success. Note: Required of all beginning freshman and transfer students with fewer than 24 hours entering the College of Business must be taken prior to completion of 18 hours as a COB student.	C	1	E
CIS	205	Information Systems in Organizations	This course helps students develop a working understanding of the differences between information systems and information technology, and how to apply those concepts to facilitate business processes successfully. Broad information systems literacy is a goal since all business majors must take this course. This course does not include computer lab sessions.	C	3	N
BUS	201	Career Development	Introduces business students to career development, including the importance of career planning.	C	1	E
ECON	201	Principles of Microeconomics	An introduction to the supply and demand model of price determination. Includes a theoretical treatment of consumer and producer behavior, a study of industrial structures, and the economic foundation for public policy. Topics may include pricing decisions, entrepreneurship, labor markets, taxation, foreign exchange rates, and advertising.	C	3	E
ECON	202	Principles of Macroeconomics	An introduction to the U.S. economy, including long-term structural developments and short-term fluctuations. Theoretical models are presented to explain changes in national output, the price level, employment, and unemployment. Competing macroeconomic models are examined and contrasted. The models provide a framework for studying fiscal and monetary policy, and the effectiveness of macroeconomic policy during recent economic history is evaluated.	C	3	E
ACCT	203	Principles of Accounting	An introduction to accounting from a user's perspective.	C	3	N
Phil	222, 225, 321, or 323	Ethics	Phil 222 - Moral aspects of current medical, legal, political, environmental and social problems and of the presuppositions contained in their various solutions. Phil 225 - Analysis of moral problems that arise in contemporary business practice and of the different ethical frameworks proposed to resolve them. Phil 321 - Main theoretical frameworks for systematically addressing questions about moral obligation and the good life. Additional topics may include responsibility, virtue, justice, law and morality, relativism, evil, and reasons to be moral.Phil 323 - Analysis of codes of ethics and concepts of ethical practice in the profession of medicine; historical developments, contemporary problems, and case studies.	C	3	E
BSTA	301	Business Statistics	Designed for students in Business and Economics, this course introduces them to the basic elements of probability and statistics, covers descriptive statistics, elements of probability theory, properties of discrete and continuous random variables, sampling estimation, hypothesis testing, analysis of variance and regression analysis. The application of these concepts to problem solving in business and economics is emphasized.	C	3	E
BUS	310	Data Analytics for Business	Contemporary businesses depend on analytics to grow, sustain, and adapt to the challenges of their marketplace. This course introduces students to common analytic concepts in order to better position them to understand, utilize, and disseminate data and other forms of business evidence. The course focuses on real-world examples and applications to illustrate how business analytics informs decision-making while introducing students to basic statistical and visualization tools commonly used in the workplace.	C	3	N
FIN	302	Introduction to Finance	A study of business financial decision making. Decision-making techniques that enable firms to efficiently manage their financial resources and maximize the value of their owners' investment are presented and discussed. The course includes some calculator and spreadsheet problem solving.	C	3	N
MKT	301	Principles of Marketing	A study of the behavioral, functional, societal, international, and institutional foundations of marketing, as well as the following marketing mix variables: product, price, promotion, and channels of distribution.	C	3	E
MGMT	301	Management and Organizational Behavior	Designed to provide students with the basic level of knowledge and skills in management and interpersonal processes necessary for more advanced business study and employment success.	C	3	E
MGMT	320	Introduction to Operations and Supply Chain Management	This course covers the concepts of operations and supply chain management as applied to the design of processes used to create products and services, and the process improvement tools and techniques of lean, six sigma and the theory of constraints.	C	3	N
MGMT	441	BBA CUE Business Strategy and Policy	The study of the interdisciplinary nature of upper level management decision-making. Comprehensive cases and/or computer simulations are used to familiarize students with the analysis of industry trends, internal operations, and the external environment under conditions of uncertainty. Domestic and international dimensions of strategy formulation and execution are examined.	C	3	E
CLAW	301	Legal Environment of Business	An introduction to the American legal and judicial system, with particular emphasis on the relationship of the law to business activities. A study of the developments of the law and the operation of the judicial system. Emphasis will be placed on the impact that government regulations and certain areas of the Uniform Commercial Code have on business.	C	3	E
			Total Credit hours Required for Program Core (i.e., # of hours in degree program core) Note: number recorded will automatically populate Core Hours in "Summary of Total Program Hours" table		44	NA

Core Courses Required for Track(s), Concentration(s), or Speciality(s) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
			Total Credit hours Required for Program Options (Track(s), Concentration(s), or Speciality) (if applicable) Note: number recorded will automatically populate Program Option hours in "Summary of Total Program Hours" table		0	

GUIDED Elective Courses (i.e., Specified list of Program Electives AND/OR Electives focused on a specific track/concentration/or speciality) (if applicable)						
Course Prefix	**Course #**	**Course Title**	**Course Description**	**Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)**	**Credit Hours**	**Existing (E) or New (N) Course**
# of REQUIRED Credit hours in Guided Electives (i.e., electives for a focused or track/concentration/speciality are). If 9 hours is required and there are 15 hours to choose from, then only 9 hours are required)			**Note: number recorded will automatically populate Guided Elective hours in "Summary of Total Program Hours" table**		**0**	**NA**
FREE Elective Courses (i.e, general program electives, open to the students to choose) (if applicable)						
Course Prefix	**Course #**	**Course Title**	**Course Description**	**Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)**	**Credit Hours**	**Existing (E) or New (N) Course**
Varies	**Varies**	**Varies**	Students must complete 31 hours of General Education requirements. 3 hours of SB is already taken as part of the Core with ECON 201.	**P**	**28**	**E**
BBA	**397**	**Co-Op/Internship**	A new workplace experience in an approved position which offers a progression of learning for practical application of theory and tools.	**P**	**6**	**N**
Varies	**Vaires**	**Varies**	**May choose 12 hours of approved Business electives.**	**P**	**12**	**E**
Varies	**Varies**	**Varies**	Additional coursework (double major, minor, electives.	**P**	**30**	**E**
Total # of Credit Hours in Free Electives (i.e., general program electives) (if applicable)			**Note: number recorded will automatically populate Free Elective Hours in "Summary of Total Program Hours" table**		**76**	**NA**

		Summary of Total Program Hours	**Required Core Hours (i.e., # of hours in degree program core)**	**44**	NA
			Required Program Options - Track/Concentration/Specialty Hours (if applicable)	**0**	NA
			Guided Elective Hours (e.g., focused or track/concentration/speciality area specific electives) (if applicable)	**0**	NA
			Free Elective Hours (i.e., general program electives) (if applicable)	**76**	NA
			Total # of credit hours required for Program	**120**	**NA**
		Information to be completed by PIE Office			
			# of new courses	6	NA
			Total # of Courses (includes new and existing)	40	NA
			Precentage of new courses (more than 25% may require SACS Substantive Change)	15%	NA

University of Louisville
BBA - BACHELOR OF BUSINESS ADMINISTRATION
52.0101-Business/Commerce, General.
Submission Date: 04/28/2020 16:32

Full Proposal - Basic Info

Institution :	University of Louisville
Program Type :	Single Institution
Program Name :	Bachelor of Business Administration
Degree Level :	Baccalaureate
Degree Designation :	BACHELOR OF BUSINESS ADMINISTRATION
CIP Code (2-Digit) :	52-BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.
CIP Code :	52.0101-Business/Commerce, General.

Academic Unit (e.g. Department, Division, School) :	Department of Management
Name of Academic Unit :	College of Business
Name of Program Director :	Richard Germain

Intended Date of Implementation :	8/1/2020
Anticipated Date for Granting First Degrees :	5/1/2021
Date of Governing Board Approval :	4/23/2020

Institutional Contact Information

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Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

The fundamental and singular objective of the proposed BBA degree program is to provide a broad business education in preparation for a responsible and rewarding career. This is entirely consistent with the mission of the College of Business: namely, to prepare students for responsible and rewarding careers. The College mission also includes a commitment to enhancing the economic vitality of our broader business community. The proposed Bachelor of Business Administration—especially with its focus on internships and broad exposure to business topics—provides a strong foundation for launching successful careers, prepares the next generation of our business community's business leaders, and puts our students on a pathway to excel in life. Furthermore, BBA students should, through different admission requirements, allow the College of Business to serve a larger number of student populations. The BBA degree program thus conforms with the University of Louisville mission, especially that of increasing inclusivity in the student body.

2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The University of Louisville 2019-2022 Strategic Plan seeks to make UofL a great place learn, work, and invest. The proposed BBA program is highly connected to making UofL a great place to learn. The mission of the College of Business is to prepare students for responsible and rewarding careers and includes a commitment to enhancing the economic vitality of our broader business community. The proposed BBA program, especially with its broad exposure to business topics, provides a strong foundation for launching successful careers, prepares the next generation of our business community's business leaders, and puts our students on a pathway to excel in life.

The University of Louisville Mission (adopted in 2016) envisions instruction of diverse students at various levels "in order to develop engaged citizens, leaders, and scholars." A major purpose of the proposed BBA is to increase the number of populations served by the College of Business and the University of Louisville.

3. Explain how the proposed program addresses the state's postsecondary education strategic agenda.

The postsecondary strategic agenda is supported through increased enrollment, provision of opportunity to various student populations, and through increased efficiency and asset utilization rates.

Objective 3: Increase participation in postsecondary education, particularly among traditionally underserved populations. The proposed BBA program may be attractive to transfer students from Kentucky community colleges. The College of Business's current BSBA degree is designed to be technical in nature. The BBA degree program, which lacks a calculus requirement, for example, may lead to greater appeal among students who are not inclined toward a mathematical orientation.

Impact, Objective 9: Improve the career readiness and employability of postsecondary education graduates. BBA graduates would be ready for and employable in a variety of careers including in general management, training and development, management analysts, and sales and sales management.

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4. Explain how the proposed program furthers the statewide implementation plan.

Adequate Funding: The new BBA degree requires a limited number of new and separate courses from the college's existing BSBA degree program. The remainder and significant majority of courses will be from the current BSBA degree program. The net effect is that the BBA will be highly efficient from an asset utilization perspective as excessive instructional capacity will be taken advantage of. In addition, the program allows for a significant number of credit hours at the 300 / 400 level to be taken outside of the College of Business. This will allow students to access minors in other disciplines without exceeding the 120 credit hour program degree requirement. Again, this allows effective use of assets and will increase the number of students that are serviced/graduated without proportional cost increases. While several instructors will be required to service instructional needs, the model is effective from funding and cost perspectives.

Accountability: The College of Business is fully prepared to be accountable for the program and to do so in a fashion that is collaborative to ensure that the common goals of the Commonwealth are addressed. For example, the efficient use of assets will result in a lower service cost per student, while the degree admission requirements will increase accessibility. Both are critical to the Commonwealth of Kentucky, the University of Louisville, and to the general student body. An analysis of classroom utilization rates (specifically, the percentage of seats used per course in its designated classroom) showed that the College of Business can absorb students at a low marginal cost. The net effect is that this will lower the cost of service per student.

Outcomes-based Funding: The College of Business through the BBA and through attendant policies seeks to increase the student population degree production. Aggressive retention policies along with retention-driven resources will serve to increase this important state-identified, student-related outcome.

Measures of Progress: Consistent with state needs, the key measures of progress identified are: (1) Percent of recent Kentucky high school graduates entering postsecondary education within the state who met statewide readiness standards, and (2) Percent of Kentuckians ages 25-64 enrolled in a Kentucky post-secondary institution. The proposed BBA degree program will contribute to these metrics.

Progress Reports: Progress reports will be based on the key metrics and are anticipated to be annually generated. The key metrics utilized will be the program retention rates, the number of students who graduate from the program, and starting salaries and/or wages of graduates, among others.

Campus Strategic Plans: The proposed BBA degree program is consistent with elements of the University of Louisville strategic plan. The program is designed to: serve existing University of Louisville students, attract new students to the university, and meet the employment needs of local businesses.

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Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

The student learning outcomes for the program are:
a. Be competent in general business
b. Be able to apply critical thinking skills in making decisions and solving problems
c. Have an awareness of ethical issues
d. Be effective communicators
e. Be competent with technology
f. Have an awareness of global business environments

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

Below is a mapping of student learning outcomes and the specific courses in which those outcomes are covered.

Be competent in general business:
ECON 201 Principles of Microeconomics
ECON 202 Principles of Macroeconomics
ACCT 203 Introduction to Financial and Managerial Accounting
BSTA 301 Business Statistics
FIN 302 Introduction to Finance
MKT 301 Principles of Marketing
MGMT 301 Management and Organizational Behavior
CLAW 301 Legal Environment of Business
MGMT 320 Introduction to Operations and Supply Chain Management
BUS 441 Business Strategy and Policy

Be able to apply critical thinking skills in making decision and solving problems:
BSTA 301 Business Statistics
BUS 310 Business Communications
FIN 302 Introduction to Finance
MGMT 320 Introduction to Operations and Supply Chain Management

Have an awareness of ethical issues: One of:
PHIL 222 Contemporary Moral Problems
PHIL 225 Business Ethics
PHIL 321 Ethics
PHIL 323 Medical Ethics

Be effective communicators:
BUS 301 Business Communications
BUS 310 Data Analytics for Business

Be competent with technology:
CIS 205 Information Systems in Organizations
FIN 302 Introduction to Finance
MGMT 320 Introduction to Operations and Supply Chain Management

Have an awareness of global business environment:
ECON 201 Principles of Microeconomics
ECON 202 Principles of Macroeconomics

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MKT 301 Principles of Marketing
MGMT 441 Business Strategy and Policy

Program Objectives: The fundamental and singular objective of the proposed BBA degree program is to provide business-related, university-level educational opportunity to potential student groups that might otherwise lack access. The BBA degree program meets the UofL strategic priority of increased enrollment. The post-secondary strategic agenda is supported through increased enrollment, the provision of opportunity to various student populations, and through increased efficiency and asset utilization rates.

The objective of providing business-related educational opportunities is envisioned through an undergraduate BBA common core (of approximately 40 credit hours), followed by 15 credit hours of required courses (including six credit hours of co-op/internships). This is supplemented by an additional 30 credit hours of free electives. These electives may be taken from within the College of Business or they may be taken from within the University at large. The program learning objectives are: (1) be competent in general business; (2) have an awareness of ethical issues; (3) be effective communicators; (4) be competent with technology; and (5) have an awareness of global issues. The mapping of learning objectives to courses is provided above.

The curriculum is entirely consistent with the program objectives: students will be exposed to the fundamental College of Business core. Students will not be obliged to enroll in a major that involves a deeper technical exposure to a standard business discipline: e.g., marketing, management, finance. Students will not be required to complete a calculus course (required for admission to the BSBA degree) but rather will take MATH 111 College Algebra. These factors combined indicate that the program will increase enrollment university wide, especially with regard to transfer students.

The program focus is on providing access to a larger number of populations. This is accomplished through a curriculum that, while maintaining instruction in the College of Business core and access to a limited number of additional required elective credit hours, provides the student with the academic flexibility to select various minors from outside the College of Business. Admission requirements will also be attractive to students not currently being served by the university.

2 Copy of Form-KPPPS Course Template 11-14-2019.xlsx

3. Highlight any distinctive qualities of this proposed program.

The major quality of the program is that it allows students to complete a business common core along with 15 hours of required business credit hours, while the remainder of the program credit hours follow a highly customizable format so that students may tackle a minor within the College of Business or from the University at large. In addition, the program will provide access to under-represented populations through a carefully thought-out curriculum and admission requirements.

4. Will this program replace any existing program(s) or specializations within an existing program?

NO

5. Include the projected faculty/student in major ratio.

The projected student to faculty ratio for Fall 2020 would be 6.25:1.

6. Is there a specialized accrediting agency related to this program?

YES

Please identify the agency.

The Association to Advance Collegiate Schools of Business(AACSB).

Do you plan to seek accreditation?

YES

Please explain your plans for accreditation.

Every five years, AACSB accredits all of a college's programs at one time. The College of Business will include the BBA degree program in the next AACSB review cycle.

7. Attach SACS Faculty Roster Form.

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4 Form-Faculty Roster 10-31-19 BBA.docx

8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

A letter of library support is provided in a separate document.

8 LIB--Letter of Support BBA.pdf

B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

An analysis of resource utilization shows that the College of Business possesses sufficient classroom space and technology to support the proposed BBA program. The College of Business houses more than 80 full-time faculty, more than 40 staff, 16 classrooms, three computer labs, and three centers. Classrooms range in size from a seating capacity of 15 to 205. All classrooms are equipped with modern technology. The College also uses two classrooms in Davidson Hall, one of which is a dedicated computer lab with a capacity of about 40 students.

9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

Admission Requirements:
The BBA will require a GPA of 2.75 and an ACT Math Score of 21 or higher for admissions directly from high school. For transfer students, a college GPA of a 2.5 will be required for students from other units within the University of Louisville or from a different college or university.

Retention Plan and Standards:
Students must maintain a 2.0 cumulative GPA to remain in good standing. In order to make progress toward completion in four years, students must take a minimum of 30 earned hours per academic year. The College of Business has a comprehensive retention plan that includes assigned, proactive advising, in-house career planning, and an in-house student success center. Students are required to be advised in their first year and receive appointment campaigns every semester throughout their academic career. Students who fall below minimum GPA requirements or who are identified as “at risk” through the EAB platform will be required to meet with their academic advisor and the student success coach. All first year students are required to take a freshmen seminar class taught by an academic advisor and a second-year careers course. First-year students will also have the opportunity to join the College of Business Learning Living Communities.

Completion Standards:
A minimum of 120 earned hours; a 2.0 cumulative GPA and a 2.0 GPA within the Business courses; at least 60 hours at a 4-year school.

10. Clearly state the degree completion requirements for the program.

The following table shows the exact degree requirements necessary to graduate from the proposed 120 credit hour BBA degree program.

COLLEGE OF BUSINESS
BACHELOR OF BUSINESS ADMINISTRATION

Hours Cardinal Core (General Education)
3 English 101
3 English 102
3 Oral Communication* (OC)
3 Natural Science* (S)
3 Natural Science* (S)
1 Natural Science Lab* (SL)
3 Arts/Humanities* (AH)
3 Arts/Humanities* (AH)
3 Historical Perspective* (SBH)

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Hours Programmatic Requirements
1 Camp 100 Campus Culture
3 Math 111 College Algebra
3 Ethics (Phil 222,225,321 or 323)
3 Bus 301 Business Communication
1 Bus 201 Career Development
3 Econ 201 Principles of Microeconomics
3 Econ 202 Principles of Macroeconomics
3 Acct 203 Intro to Financial and Managerial Accounting
3 BSTA 301 or other Statistics
3 CIS 205 Info Sys in Orgs

51 Hours Remaining:
*See University Catalog for Choices

Hours Business Breadth
3 Fin 302 Introduction to Finance: New course
3 Mkt 301 Principles of Marketing
3 Mgmt 301 Mgmt & Org Behavior
3 CLAW 301 Legal Environ Bus
3 BUS 310 Data Analytics for Business
3 Mgmt 320 Intro. to Operations and Supply Chain Mgmt: New course
18 Hours Remaining:

Hours BBA Business Electives
3 MGMT 441 Bus Strat & Policy (CUE)
3 Co-op / Internship
3 Co-op / Internship
3 Choose from list (see BBA electives tab)
3 Choose from list
3 Choose from list
3 Choose from list
21 Hours Remaining:

Hours Required Electives
3 300+
3 300+
3 300+
3 300+
3 These credit hours may be used to enroll in minors within the College of Business or university-wide.
3
3
3
3
3
30 Hours Remaining:

Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	120	44	0	76

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12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

The BBA program at the College of Business will accept equivalencies for the following courses from two-year and four-year colleges: ACCT 201/202; ECON 201/202; STATS; and a 100 level CIS course. Additional 300-level business core courses may be transferred from other four-year AACSB-accredited schools provided they are deemed equivalent.

13. List courses under the appropriate curricular headings.

Copy of Form-KPPPS Course Template 11-14-2019.xlsx

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

NO	Distance learning
NO	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
NO	Technology-enhanced instruction
YES	Evening/weekend/early morning classes
NO	Accelerated courses
NO	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

Classes will be offered at a variety of times in order to accommodate the schedules of students.

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

UofL has 205 students that are enrolled as pre-business majors who do not meet the admission requirements for the existing BSBA degree but would be eligible for a more generalist business degree.

We estimate 137 direct freshmen admits for Fall 2020 based on new admissions requirements and the number of pre-majors for Fall 2019.

We estimate 210 KCTCS students that intend to transfer to UofL who will have declared Business Admin as a major.

There is also a potential applicant pool from other units within the University.

b. Identify the applicant pool and how they will be reached.

The applicant pool will include:

• Applicants who want a business degree but who do not meet the advanced-level quantitative skills required of the BSBA programs.
• Applicants who need a business degree to advance within their current workplace.

Applicants will be identified through the Slate platform for new students.
Current pre-business majors within the University of Louisville will receive a personal outreach letter from the College as well as through the Exploratory Advising Center.

c. Describe the student recruitment and selection process.

• Students who are listed as pre-business will be sent a direct email inviting them to change majors to the BBA program. Students in other units at the University will be informed through the Majors Day and via the other advising centers on campus.
• Students in the KCTCS system will be contacted via the Recruitment Fairs on the KCTCS campuses as well as communications through UofL's ULtra program (which supports students wishing to transfer to UofL from JCTCS) and the advising centers on the KCTCS campuses.
• The College will work closely with the Admissions Office, regional recruiters, and our out-of-state recruiters through the Slate platform. Direct contact will be made through the High School Counselors in the Region. Targeted outreach programs to local area high schools are in development.
• Admission for freshmen applicants is based on a holistic review including high school grades, national college admission test results, and successful completion of the pre-college curriculum.

d. Identify the primary feeders for the program.

There are three primary feeders for the program. This first will be incoming freshmen. The second will be undecided students already enrolled at the University of Louisville. The third will be transfer students from other universities and from community colleges. Students who enrolled as pre-majors to the University of Kentucky but who did not meet the admissions requirements for the upper division could be a potential feeder for the BBA.

e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

The University of Louisville is expanding efforts to attract out-of-state and international students. The addition of the BBA degree would make the College of Business more competitive with other regional and out-of-state institutions.

f. Project estimated student demand for the first five years of the program.

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Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2020-2021	0	100
2021-2022	50	200
2022-2023	150	200
2023-2024	200	200
2024-2025	200	200

2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

Employer demand was assessed through an analysis of various job types identified in the Bureau of Labor Statistics Handbook. These job types are: (1) human resource specialist; (2) food service manager; (3) loan officer; (4) meeting, convention, and event planners; and (5) sales manager. Average wages for these positions ranged from $49,370 to $124,220. Total employment in the Commonwealth of Kentucky in these job categories ranged from 990 to 6,600. Regional positions (KY, IN, OH, TN) ranged from 6,510 to 48,610. Commonwealth of Kentucky job growth projections (as measured in growth in annual number of openings) ranged from 6% to 16%. Regional job growth projections ranged from 8% to 12%. Statistics were also collected on national growth projections, national number of positions, and national number of job openings: national growth projections ranged from 7% to 11%.

Data source:
https://datausa.io/profile/geo/kentucky#targetText=Median%20Household%20Income,-%2448%2C375
&targetText=Households%20in%20Kentucky%20have%20a,represents%20a%203.68%25% 20annual%20growth.

3. Academic Disciplinary Needs:

The program is not being proposed due to academic disciplinary needs.

a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

NO

Would your institution like to make this program available through the Academic Common Market?

NO

b. Our records indicate the following similar programs exist at public institutions in Kentucky.

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#Enr = Fall Enrollments , #Grd = Academic Year Graduates

		2019 - 20		2018 - 19		2017 - 18		2016 - 17		2015 - 16		2014 - 15	
Institution	Program	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd
Eastern Kentucky University	*General Business	310		269	54	222	39	208	29	197	33	178	33
Kentucky State University	Business/Commerce, General									130		163	
Morehead State University	*Business Administration, General Business	171		194	27	188	42	224	36	227	34	260	56
Murray State University	*Business Administration	316		293	64	347	94	367	92	375	92	404	80
Northern Kentucky University	*General Business	28		245	27	253	60	311	74	344	64	460	81
University of Kentucky	*Management	769		747	185	747	189	732	162	723	146	675	144

c. Does the proposed program differ from existing programs?

YES

Please explain.

The Business School offerings at the following public schools in Kentucky were analyzed: University of Kentucky (UK), Northern Kentucky University (NKU), Western Kentucky University (WKU), Eastern Kentucky University (EKU), Morehead State University (MSU), Kentucky State University (KSU), and Murray State University (MSU).

These schools offer a range of undergraduate degree programs, primarily degrees designated as Bachelor of Science (BS), Bachelor of Science in Business Administration (BSBA), Bachelor of Business Administration (BBA), and Bachelor of Arts in Business Administration (BABA). The identified BS, BSBA, BBA, and BABA degree programs, with one exception, all shared the common thread of a significant business and pre-business common core and a significant number of credit hours within a major, track, or concentration. For example, Morehead State University offers a BBA degree program with seven majors (or tracks), each of which requires from between 27 to 30 credit hours in a specific discipline (e.g., marketing). UK offers two BSBA and three BBA degree programs consisting of between 18 and 21 discipline-specific credit hours. Note that the programs identified here only include required courses within a major and not additional electives within the specific discipline (e.g., degree programs may require 15 credit hours plus an additional nine credit hours as electives within the same discipline).

Our proposed BBA requires only nine credit hours of business courses after the business and pre-business core plus six credit hours of co-op (or internship courses). The remaining credit hours normally cover a pre-specified major, track, or concentration, along with additional elective hours required from within the College of Business or from other UofL units. This critical distinction is what differentiates the proposed BBA from virtually all other BSBA, BS, BBA, and BABA programs offered by public institutions within the Commonwealth of Kentucky. Students will in essence benefit from a business and pre-business core while being able to craft a minor of significance from outside of the College of Business.

The only degree program we identified as being somewhat similar is the BSBA in General Business offered by NKU.

d. Does the proposed program serve a different student population (i.e., students in a different geographic area) from existing programs?

YES

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Please explain.

The intent of the BBA degree program is to serve various underserved populations. One major population consists of students who do not desire to deepen their knowledge into one or more business disciplines (e.g., finance, accounting). This population would rather engage with the College of Business to obtain a business core with a limited number of elective hours while possibly combining this with a minor from the College of Business or from another University of Louisville college. This program will attract new students both to the College of Business and to the University as a whole. Note that the existing UofL BSBA degree has a calculus requirement for admission. The more general and less specific BBA does not have this requirement. This should lead to a growth through admitting new students to the College and to the University, especially through the community college path.

e. Is access to existing programs limited?

YES

Please explain.

The only program identified as being somewhat similar is the NKU BSBA in General Business. The degree sheet for the program states, “The Bachelor of Science in Business Administration (B.S.B.A.) with a major in General Business is a selective admission program” (http://onlinecatalog.nku.edu/mime/media/16/1552/General-Business-BSBA_Four-Year-Plan1819.pdf). In addition, students must complete 12 credit hours at NKU consisting of a selective admission group of courses all at the 200 level and obtain a specified grade in each course. This indirectly limits access, as students appear to be unable to transfer these courses from community colleges.

f. Is there excess demand for existing similar programs?

NO

g. Will there be collaboration between the proposed program and existing programs?

YES

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Please explain the collaborative arrangements with existing programs.

UofL's College of Business actively collaborates with universities across the Commonwealth. Some collaborations include:

• Numerous faculty collaborating on research projects in the areas of organizational behavior, human resources, entrepreneurship, and accounting.
• Faculty from UofL and UK guest lecturing in one another's classes.
• Faculty providing teaching resources to other Kentucky universities (e.g., syllabi, assignments, grading rubrics, and assessment tools for business communication courses).
• Faculty member serving on the Kentucky Society of CPAs' Diversity and Inclusion Task Force, with members from WKU and UK.
• Faculty member assisting WKU with hosting the southeast regional Beta Alpha Psi (the International Honor Organization for Financial Information Students and Professionals) meeting in Louisville.
• Faculty member serving on the Consensus Forecasting Group, which includes economists from UK, WKU, and Centre.
• Faculty attending the UK Teaching Conference.
• Career Services Office partnering on a joint UofL-UK industry-based job fair in Lexington.
• A UofL faculty member is the President of the Kentucky Economic Association, which includes members from universities across the Commonwealth.
• In the past year alone, UofL hired a UK PhD graduate as faculty member in the College of Business; and WKU's College of Business has hired one of our PhD graduates -- which shows the ability to retain top talent in the Commonwealth.
• Significant collaboration within our graduate programs, most notably launching a joint UofL-UK Executive MBA program in 2015. The University of Louisville is the home institution, and the two business schools equally share in academic, administrative, and marketing and recruiting oversight.

The number of elective credit hours in the proposed BBA program provides significant opportunities for the College of Business to collaborate with other University of Louisville units, especially in terms of minors.

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

YES

Please provide a brief summary of additional resources that will be needed to implement this program over the next five years.

The Program Budget Spreadsheet shows that the program will require $40,000 in additional expenses in its first year, increasing to more than $250,000 in each of the subsequent four years. The funds will primarily be needed for instructional expenses and for additional advising expenses.

2. Will this program impact existing programs and/or organizational units within your institution?

YES

Please describe the impact.

The program will impact the existing Bachelor of Science in Business Administration (BSBA). The major impact will be that the following core business courses will be required of both BSBA and BBA students: MKT 301, MGMT 301, CLAW 301, BUS 441, ECON 201, ECON 202, and BSTA 310. Enrollments in these required BSBA courses will increase, meaning that the percentage of seats filled per course section should increase. Also, the proposed BBA calls for nine credit hours in College of Business electives. Enrollments in relevant courses will thus increase as well.

3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

The Program Budget Spreadsheet shows that the program will generate a program surplus of $368,000 in its initial year, increasing to more than $500,000 for the subsequent four years.

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A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Internal					
Allocation :	0	0	0	0	0
Reallocation :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Student Tuition					
New :	408000	816000	816000	816000	816000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	We are estimating revenue to the unit based on the total number of additional students to the university x 12 credit hours per year to be taught in the COB x $340 per credit hour, which is the projected revenue to units for FY21.				
Total					
New :	$408,000	$816,000	$816,000	$816,000	$816,000
Existing :	$0	$0	$0	$0	$0
Total Funding Sources :	$408,000	$816,000	$816,000	$816,000	$816,000

B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Staff: Executive, administrative, and managerial					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Other Professional					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Faculty					
New :	102400	204800	210944	217272	[illegible]0

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Existing :	0	0	0	0	0
Graduate Assistants (if master's or doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Student Employees					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Our current undergraduate seated classes average approximately 65% full and in 2018-19 we taught approximately 45,000 undergraduate credit hours. BBA students will take many of the same Business Core and Business Breadth courses as our BSBA students and we anticipate that the increase of 2.65% in undergraduate credit hours for those shared courses will be able to be accommodated in existing classes without an increase in costs for the first year. However, with respect to new courses that are needed only for BBA students, we expect to cover the Year 1 students with new term faculty members we are currently in the process of hiring who will cover these courses in load. As the program grows, we plan to staff courses primarily with term faculty. We are estimating the need for one term faculty for every ~100 new students to the College. ($80,000 + 28% fringe = $102,400 + 3% annual increase).				
Equipment and Instructional Materials					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Library					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Contractual Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Academic and/or Student Services					
New :	102400	105472	108636	111896	115252
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Staff: (1) In year 1, we plan to add an Academic Advisor ($40,000 + 28% fringe = $51,200 + 3% annual increase). (2) In year 1, we also plan to add a Career/Internship Counselor ($40,000 + 28% fringe = $51,200 + 3% annual increase).				

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Faculty Development					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Other					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	NA				
Total					
New :	$204,800	$310,272	$319,580	$329,168	$339,042
Existing :	$0	$0	$0	$0	$0
Total Budget Expenses/Requirements :	$204,800	$310,272	$319,580	$329,168	$339,042
Grand Total					
Total Net Cost :	$203,200	$505,728	$496,420	$486,832	$476,958

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Full-Proposal - Assess: Program Review and Assessment

1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

The student learning outcomes for the program are:

Be competent in general business:
General business competency within specific functional verticals will be measured within each 300 (or higher) core (or required course): FIN 302; MKT 301; MGMT 301; CLAW 301; BUS 310; MGMT 410; BUS 441. In many cases, 200-level courses are assessed for functional skills as well. This leads to a large number of assessments across multiple courses. For example, the learning objectives within MKT 301 Principles of Marketing are:
LO1: Concepts of segmentation, targeting, and product positioning
LO2: Consumer and organization buying behavior.
LO3: Elements of marketing mix including: product, price, promotion, and distribution.
LO4: Marketing planning, marketing research, and information systems in the context of marketing decision-making.
LO5: Fundamental marketing terms
LO6: The American Marketing Association “Code of Ethics”
LO7: The global dimensions of marketing

These learning objectives are measured through a common set of questions asked across sections of the course. The responses are merged and provide one set of inputs into the overall assurance of learning that will be utilized at the undergraduate level within the BBA course.

Be able to apply critical thinking skills in making decision and solving problems:
The BBA proposal plans to adopt a new rubric for decision-making and critical thinking skills.

Have an awareness of ethical issues:
This learning objective is measured in multiple courses. For example it is Learning Objective #6 in MKT 301 Principles of Marketing. Its measure is shown in the general rubric for MKT 301 provided above.

Be effective communicators:
This learning outcome will be measured in BUS 301 Business Communications. The rubric used in this core, required course is used first for oral presentations and then for written communications.

Be competent with technology:
Technology competency is assessed in the required Computer Information System (CIS) course. Similar to the marketing assessment, the CIS unit utilizes a 25-item multiple-choice pre- and post-test design.

Have an awareness of global business environment:
This learning objective is measured in multiple courses. For example it is Learning Objective #7 in MKT 301 Principles of Marketing.

b. When will the components be evaluated?

All learning objectives will be measured once per year during the spring semester. This will enable the program to complete SLO and other assurance of learning reports in a timely fashion.

c. When will the data be collected?

The data will be collected during the spring semester.

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d. How will the data be collected?

The faculty will collect data in their courses.

e. What will be the benchmarks and/or targets to be achieved?

The program will seek to have a minimum of 80% of students obtain a satisfactory or higher score. This will be applied to each of the six learning objectives identified above.

f. What individuals or groups will be responsible for data collection?

The faculty will collect data at the course level and program specific recommendations within their courses.

g. How will the data and findings be shared with faculty?

The data, analysis, and results will be shared first with the Undergraduate Studies Committee. To increase visibility, annual reports will be shared with the faculty.

h. How will the data be used for making programmatic improvements?

The Undergraduate Studies Committee and the program director will review the data in total. This broad assessment should lead to recommendations at the program level. The data will be analyzed and interpreted to illuminate potential areas/activities for improvement.

2. What are the measures of teaching effectiveness?

Teaching effectiveness in the BBA will be evaluated via the course student evaluations (currently on a 5-point scale). The “instructor effectiveness” item will be the only criterion utilized from the College of Business student evaluation. Besides the 5-point score per class, the scores across all classes will be compared to give a relative measure of instructor effectiveness. Any new teaching effectiveness measures adopted by the university will be incorporated into the model used by the College of Business and thus the BBA program.

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Based on relative performance among the other College of Business instructors as well as absolute “effectiveness” on the 5-point scale from student evaluations, any instructors performing at a level lower than 2.5 will need to work with the UofL Delphi Center for Teaching and Learning to improve their course content, assessments, and/or delivery style to improve. It is hoped that the publicly available effectiveness scores will provide opportunities for high performers to be sought for advice by lower performers.

4. What are the plans to evaluate students’ post-graduate success?

The BBA will utilize a post-graduation survey administered by the Reinhart Academic Center and Institutional Research and Planning to track post-graduate success.

PROPOSED PROGRAM SUMMARY

Institution: University of Louisville
Program Name: Materials and Energy Science and Engineering
Degree Designation: Master of Science

Program Description:

Over the last two decades, graduate research activities in materials and energy research have grown multifold. With the establishment of UofL's Conn Center for Renewable Energy Research in 2009 our research capacity expanded with recruitment of several new faculty and research theme leaders who further developed a number of research facilities and inter-disciplinary courses in both advanced materials and energy science and engineering.

Based on these strengths, the Speed School of Engineering proposes a Master of Science in Materials and Energy Science and Engineering (MS in MESE).

Students will be trained with fundamental concepts on advanced materials, energy devices, and processing and systems engineering. The educational experiences will be enhanced by research opportunities in laboratories conducting basic and translational research on solar energy conversion, energy storage, biofuels and biomass conversion, solar fuels, materials characterization, and advanced energy materials. The MS in MESE will prepare students for career tracks in industry such as semiconductor/opto-electronics, materials, catalysts and energy. Students will also be able to pursue entrepreneurship, government and corporate labs, and doctoral studies in their respective disciplines.

CIP Code: 14.1801
Credit Hours: 30
Institutional Board Approval Date: Slated for January 23, 2020
Implementation Date: Fall 2020

Student Demand

Year 1	Year 2	Year 3	Year 4	Year 5
8	16	24	36	48

Market Demand

Materials and Energy Science and Engineering (MESE) is a relatively new engineering discipline when compared to the long-standing traditions of other fields of engineering. A materials and energy scientist and engineer uses traditional engineering skills and tools to analyze and solve problems in materials and energy. MESEs collaborate with physicists, biologists, biochemists, chemists, and chemical, mechanical, electrical, computer, civil, and industrial engineers to design, develop, and manufacture new materials and devices and assemble systems for applications at scale.

Employment opportunities for MESEs are predicted to continue growing faster than the average for all occupations through 2020, as reported by CNNMoney, with a 10-year job growth of ~62%. Combined with a growing job market and attractive compensation (median pay: $87,000), MESEs have the gratification that comes from working to meet the needs of society and improve quality of life, particularly in the energy sector.

Meeting rising energy demand is one of our civilization's greatest challenges affecting quality of life, education, and commerce across sectors and socio-economic strata. The MS in MESE supports the education of those who will design, produce, and implement energy technologies into our current infrastructure.

Employer Demand:

In 2018, there were 2,324,866 energy efficiency jobs and 242,343 solar jobs, with cumulative solar installations expected to double by 2024. Current market demand for a workforce with advanced training in the energy materials sector is greater than average, with 7 to 9% growth in 2019. This is especially true for the solar energy and energy efficiency sectors.

References:

https://www.seia.org/solar-industry-research-data

https://www.thesolarfoundation.org/national/

https://www.usenergyjobs.org/

Established and announced corporate ventures in the region—including EnerBlu (Battery mfg; announced but status unknown), Clariant Corporation (catalysts), Kentucky Advanced Materials Manufacturing (industrial diamonds), Braidy Industries (aluminum), and Nucor (steel)—are speculated to provide an additional 100 – 200 jobs for MESE graduates in the next 5 years. An additional 10 regional startup companies in the materials and energy sector—including Pyrochem Catalyst Company (catalysts), Advanced Energy Materials, LLC (energy materials), Bert Thin Films, LLC (solar), and BioProducts, LLC (biofuels)—are estimated to provide between 25 and 50 jobs over the next 5 years as well. Over the last 3 years, the KY Cabinet for Economic Development (CED) has aimed recruiting efforts at companies involved with energy materials and systems. This proposed MS program could be a great source of workforce development to enable the success of such companies.

	Regional [1] (Louisville)	Regional Growth Projections	State[2]	State Growth Projections	National[3]	National Growth Projections
Type of Job	Materials Engineers		Materials Engineers		Materials Engineers	
Average Wage	$35.07/per hour		$81,173		$98,390	
# of Openings	15	0	67	4.5%	27,700	0%
Type of Job	Materials Scientist		Materials Scientist		Materials Scientist	
Average Wage	N/A		$78,692		$78,330	
# of Openings	0	0	34	5.7%	95,800	4%
Type of Job	Environmental Scientist		Environmental Scientist		Environmental Scientist	
Average Wage	$29.29/per hour		$51,645		$71,130	
# of Openings	90	5.67%	972	4.8%	85,000	8%

Most of the current Bureau of Labor Statistics projections are for 2016-2026. Other sources include; but are not limited to,

Georgetown University Center on Education and the Workforce

Bureau of Labor Statistics' Occupational Outlook Handbook

Kentucky Center for Statistics

KY Chamber, "Kentucky's Workforce, Progress and Challenges," January 2018
https://www.kychamber.com/sites/default/files/Kentuckys%20Workforce%20Progress%20and%20Challenges%202018%20Final%20NEW.pdf

Kentucky, Bridging the Talent Gap
Document - https://www.bridgingthetalentgap.org/wp-content/uploads/2017/05/KY-Statewide.pdf
Interactive website: https://bridgingthetalentgap.org/dashboards/

Kentuckiana Works Local Workforce Area Occupation Outlook for 2014-2024
Kentucky Center for Statistics 2016-2026 KY Occupation Outlook

[1] Kentuckiana Works Local Workforce Area Occupation Outlook for 2014-2024
[2] Kentucky Center for Statistics 2016-2026 KY Occupation Outlook
[3] Bureau of Labor Statistics: Employment Projections for 2016-2026

Academic Demand

This degree will offer advanced-level training to provide students with in-depth knowledge of materials and energy science and engineering in areas such as materials science and engineering, materials chemistry and physics, processing, energy conversion and storage devices, and systems-level engineering. Student educational experiences will be enhanced by research opportunities in laboratories conducting basic and translational research on solar energy conversion, energy storage, biofuels and biomass conversion, solar fuels, materials characterization, and advanced energy materials. This degree track provides a strong foundation for those wishing to pursue doctoral studies in their respective disciplines.

Unnecessary Duplication

Similar Program 1:

Institution: University of Kentucky
Program Name: Masters and PhD in Materials Science & Engineering

Comparison of Objectives/Focus/Curriculum to Similar Programs: *Explain the differences in curriculum, focus, and/or objectives. If the proposed program curriculum does not differ substantially from existing programs, then describe potential collaborations with other institutions.*

The curriculum for the M.S. degree in materials science and engineering at UK involves graduate courses on metallurgy; mechanical design; metals processing; polymers; electronic packaging systems; metal cutting operations; dislocation theory; mechanical metallurgy; etc. The proposed UofL MS degree will offer advanced-level training in advanced materials, energy technologies, processing and manufacturing of energy devices, and energy systems that culminate with techno-economic analyses and entrepreneurial projects.

Comparison of Student Populations*: Describe how your target student population is different from those at other institutions and explain how your program reaches this new population (e.g. the proposed program is completely online while other programs are face-to-face or hybrid).*

The proposed program will initially be offered in face-to-face format, but plans are to offer the degree online by Year 3. Our target student population will come from many disciplines – Chemistry, Physics, Chemical Engineering, Mechanical Engineering, Civil Engineering, Materials Science & Engineering, and Electrical Engineering disciplines.

The proposed degree program will serve students from existing programs, the metropolitan Louisville area, the greater population of Kentucky and Indiana, and SREB states. The online degree initiated in Y3 of the program will reach national and international audiences.

Access to Existing Programs: *Explain how/why existing programs cannot reach your target population and/or provide evidence that existing programs do not have the capacity to meet current student demand (e.g. the number of students on enrollment waiting list).*

The above student populations with interest in the materials, manufacturing, and entrepreneurship for energy sciences and engineering sector, especially those focused on semiconductors, thin films, and nanomaterials, do not have a home at the masters level at any institution within the Commonwealth of Kentucky. Many of these students may not be interested in traditional, existing, broad-based metallurgy and materials science programs, such as the one offered at UK, to accomplish their goals of specializing in energy R&D and careers in this specialized and growing industry. These potential students will be lost to programs at universities outside of the state.

Feedback from Other Institutions:

University of Kentucky is the only university in the state of Kentucky to offer a Master's and PhD in Materials Science & Engineering. The curriculum for UK's M.S. degree in materials science and engineering involves graduate courses on metallurgy; mechanical design; metals processing; polymers; electronic packaging systems; metal cutting operations; dislocation theory; mechanical metallurgy; etc.

There are only a few courses specifically related to our core on materials science & engineering that are potentially common, such as advanced materials science & engineering; computational materials science; opto-electronic properties & devices; and advanced materials characterization. We have collaborated and shared the course on advanced materials characterization and offered the course together at both UofL and UK campuses via Network/TV. We do plan to collaborate on offering such courses together and continue to develop the curriculum to do so.

Our proposed curriculum gives in-depth training with various aspects related and focused entirely on energy materials science and engineering. Our program could potentially be offered to UK students as well via TV and online.

Students who are admitted to UK's M.S./PhD program join that program due to their interest in the PhD program, whereas our program will be for students only interested in the MS.

The proposed M.S degree program at UofL will only take about one year to complete, whereas the one at UK takes two years to complete.

Cost

Projected Revenue over Next Five Years	$2,349,271.27
Projected Expenses over Next Five Years	$1,581,886.39

Will additional faculty be needed? Yes or No
No

Provide a budgetary rationale for creating this new program:

Over the last two decades at UofL, graduate research activities in advanced materials and energy science and engineering have grown, and several multi-disciplinary courses on advanced materials/energy science have been developed and offered. With the establishment of the Conn Center for Renewable Energy Research in 2009, the intellectual expertise and facilities at UofL have advanced to an even greater degree to carry out basic science and applied engineering in response to grand challenges in renewable energy set at the federal level. The center has added research theme leaders and faculty to the university

community in multiple disciplines pursuing research and developing interdisciplinary courses in both advanced materials and energy science and engineering.

Currently, UofL does not offer any degrees in advanced materials and energy science and engineering. Thus, the proposed M.S. degree provides a pathway for students to achieve specialization in advanced materials science and energy engineering. Both UofL graduates and non-UofL graduates with ABET-accredited engineering degrees will be able to pursue an MS in MESE at UofL.

The proposed MS degree will offer advanced-level training in advanced materials, energy technologies, processing and manufacturing of energy devices, and energy systems that culminate with techno-economic analyses and entrepreneurial projects. The program will feed our existing PhD programs in engineering and science disciplines, with students well trained and motivated to work on materials and energy research during their dissertations. This degree program will strengthen various PhD programs at the University of Louisville and other schools within the region.

This program will be funded by tuition revenue as a high-demand degree with potential for sustained growth over the next decade as the composition of energy generation, storage, and transmission evolves. To leverage this growth dynamic, an online degree track is anticipated in Year 3 to create additional revenue. As an effective and efficient use of funds, this program responds to changing market conditions and demand for the growing renewable energy and energy efficiency sectors as well as a shift in student interest in obtaining dynamic multidisciplinary training in MESE disciplines. We also believe this program has the potential to attract new non-resident students to the university from neighboring states and abroad, which will increase tuition revenues beyond projected values.

COVID-19 Question: UofL– Materials and Energy Science and Engineering (MS) Program

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program?

Response from UofL: Due to the COVID-19 pandemic, we are proposing to offer the Master of Science in Materials and Energy Science and Engineering program both online and on campus starting Spring 2021.

The university will have had experience in the fall with COVID prep and face-to-face classes. Online delivery in Spring 2021 will allow backup should the pandemic resurface and interrupt face-to-face classes.

The university has begun preparations for the fall and is already planning on offering more faculty training for the development and delivery of hybrid courses to address the needs of having a contingency of students that will still want/need online delivery even when campus is opened up. As we have been living under this (pandemic) reality since Spring Break, the vast majority of our personnel will have had significant experience with remote delivery of course(s). Since we are already getting comfortable with effective remote delivery, I do not see any deleterious effect on implementation starting Spring 2021.

Recruiting: This is a graduate-level program with most students being already either UofL students or employees in local industries. Thus, campus visits will not be necessary as they might be for undergraduate program recruiting.

Program population: Economic setbacks like the one experienced due to the COVID-19 pandemic often lead people to extend their education to make themselves more marketable, so estimates of student numbers in the program should not be negatively affected.

Alternate delivery: If the COVID-19 pandemic lasts into the spring, the effect will be minimal as part of the program was already planned for online delivery and the faculty all have experience in remote operation.

Course Title (CIP)						
Degree Program Core Courses (i.e., Courses required by ALL students in the Major--includes Premajor or Preprofessional courses)						
Course Prefix	**Course #**	**Course Title**	**Course Description**	**Type of Course: program core (C) or pre-major/ pre-professional (P)**	**Credit Hours**	**Existing (E) or New (N) Course**
MESE/CHE	**510/694**	**Advanced Energy Science and Engineering**	This course presents overview of global challenges associated with energy/environment nexus, energy demand, generation and storage. The course will cover fundamental science underlying various energy conversion and storage through thermodynamics and kinetics and understand efficiency.	C	**3**	**E**
MESE/CHE	**520/532**	**Advanced Materials Science & Engineering**	Provides a background in materials for students coming from various majors in engineering and science. The course will review fundamental crystal structures, structure, bonding relations and defects in crystals. Thermodynamics of solids, phase diagrams, structure-property relationships, microstructure control, lattice dynamics and fundamental electrical, magnetic and optical properties.	C	**3**	**E**
MESE/ME	**525/675**	**Advanced Materials Characterization**	This course provides graduate students fundamental understanding of some of the most important materials characterization techniques. Special focus is placed on fundamental aspects and practical applications of electron microscopy and diffraction methods to phase identification and structure determination for crystalline material. Following this course, students will (1) learn and understand fundamental concepts of materials structure, with the emphasis on crystals structure, (2) understand fundamentals of electron microscopy and diffraction techniques, and (3) apply theoretical methods and software tools to analyze and interpret various types of microscopic and diffraction data.	C	**3**	**E**
PHY/ECE	**575/542**	**(PHY 575) Solid State Physics or (ECE 542) Physical Electronics**	This course will cover the optical properties of solid-state materials including metals, semiconductors, and insulator starting with the classical description of optical propagation and extending to quantum theory in the treatment of absorption, luminescence, and excitonic effects. Interaction of light with matter will be discussed with the aid of optical spectroscopies and characterization techniques such as UV-VIS spectroscopy, Fourier transform infrared spectroscopy, Raman spectroscopy, X-ray/UV photoelectron spectroscopy etc. An overview of the forms of electrical conduction in solid state materials will be given starting with the free electron theory. Then fundamental concepts in quantum theory and the theory of electron ban in solids will be introduced to interpret the electrical, magnetic and thermal properties of various classes of materials. A special emphasis of electrical behaviors of metals and semiconductors will be given by introducing key electronic devices based on homo p-n junctions and hetero-junctions. A brief review of thermal and phonon properties will also be discussed. (Option - ECE 542: Physical Electronics - Covers physics of both solid state materia and devices)	**C**	**3**	**E**
			Total Credit hours Required for Program Core (i.e., # of hours in degree program core) **Note: number recorded will automatically populate Core Hours in "Summary of Total Program Hours" table**		**12**	**NA**

Core Courses Required for Track(s), Concentration(s), or Speciality(s) (if applicable)						
Course Prefix	**Course #**	**Course Title**	**Course Description**	**Course Required for Track (T), Concentration (C) or Specialty (S)**	**Credit Hours**	**Existing (E) or New (N) Course**
CHE/ECE	**581/543**	**Chemical Vapor Deposition and Processing or MEMS**	This course presents a detailed understanding about science and technology of chemical vapor deposition and related methods and reactors used for making thin films, single crystals, powders. This process is popular for semiconductor materials manufacturing and manufacturing of materials for addressing global challenges associated with energy/environment nexus, energy demand, generation and storage. In particular, the course will focus on practical applications of CVD reactors, processes, electronic & amorphous materials and educates and trains graduates with the academic and practical background necessary to function as chemical engineering professionals in several modern, state of the art industrial enterprises such as electronics manufacturing, advanced materials, energy, nanotechnology and bio-medical engineering. The course provides our graduates with the foundation for a successful career and enables life-long learning. Course will use CHEMKIN software to understand and model chemical kinetics & transport processes to vapor phase deposition and processing of materials. (Option: ECE 543 - MEMS: Processing steps necessary for making microfabricated devices)	**T**	**3**	**E**
MESE/CHE/II	**522/694/601**	**Roll to Roll Processing or Additive Manufacturing**	Continuous manufacturing through roll-to-roll processes has been a staple within several industries over the past century including film, newspaper and other traditional low-cost high volume products. As the renewable energy industry begins to scale, roll-to-roll processes can play an extremely important role in reducing costs at high volumes. This course will explore the roll-to-roll manufacturing processes through fundamental engineering principals including economics, heat and mass transfer, thermodynamics and materials. The course will consider the manufacturing of solar modules, batteries and fuel cell membranes. (Option ChE 694 or IE 601: Additive manufacturing - AM processing schemes for making 3-D objects and complex systems)	**T**	**3**	**E**
MESE/CHE	**512/694**	**Photovoltaics and Solar Fuels**	This course develops the fundamentals of semiconductor physics specific to solar energy and uses these key concepts to understand solar cell behavio The various photovoltaic technologies, including both commercial and research-stage approaches, are described in detail. In addition, electrochemical and catalysis concepts are introduced and integrated with semiconductor behavior to understand the myriad criteria necessary to leverage solar energy in electrochemical fuel production processes such as water-splitting via artificial photosynthesis.	**c**	**3**	**E**
MESE/CHE	**514/694**	**Biomass and Biofuels**	Manufacturing of "bioproducts or bio-based products" (materials, chemicals and energy produced using sustainable resources such as agricultural biomass) offers socio-economic, environmental, and health benefits. In order to be a part of this emerging bioeconomy, it is essential to learn the fundamental skills of managing biorenewable resources for the effective development of the rapidly evolving bioenergy and biofuels industries. This course integrates the biorenewable knowledge base of academic disciplines that include agriculture, chemistry, engineering, environmental sciences, and economics to provide the student with a broader perspective of this field. This course intends to assist senior level undergraduate and all graduate students in developing skills valued by prospective employers and providing a solid foundation for manufacturing, research and development of bioproducts.	**c**	**3**	**E**
Total Credit hours Required for Program Options (Track(s), Concentration(s), or Speciality) (if applicable)			**Note: number recorded will automatically populate Program Option hours in "Summary of Total Program Hours" table**		**12**	**NA**

GUIDED Elective Courses (i.e., Specified list of Program Electives AND/OR Electives focused on a specific track/concentration/or speciality) (if applicable)						
Course Prefix	**Course #**	**Course Title**	**Course Description**	**Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)**	**Credit Hours**	**Existing (E) or New (N) Course**
MESE	**610**	**Systems Integration & Entrepreneurship in Renewable Energy**	The renewables market will continue to grow as the world seeks and finds cleaner and more sustainable techniques to produce energy. This project based course guides student teams through the ideation to prototype development to test the commercial relevance of renewable energy products. At the end of the course each student team will have developed a prototype design supported by a business plan	**P**	**3**	**E**
MESE	**620**	**Techno-economic Analysis and Energy Policy**	While many novel scientific ideas are being explored for renewable energy generation and energy storage, a successful technology will require more than a proof-of-concept and an efficient prototype. Process economics, markets, and national and international energy policies will be critical to distinguishing which technologies can advance from laboratory feasibility to real-world commercialization. This course will introduce methods for conducting a technoeconomic analysis on an energy technology, determining the levelized cost of product over the facility lifetime, and modeling a sensitivity analysis to determine key performance metrics required to reach possible profitability. The development and current status of US and certain international energy policies will be addressed as well and incorporated to inform ideal markets for a prospective energy technology. Student teams will conduct their own project analysis as the core component of their grade for the course.	**P**	**3**	**N**
MESE	**630**	**Smart Manufacturing**	Smart Manufacturing are systems that are "fully-integrated, collaborative manufacturing systems that respond in real time to meet changing demands and conditions in the factory, in the supply network, and in customer needs". NIST This directed reading and project based course will address the ke principals of Smart manufacturing with an emphasis on Energy efficiency, sustainability, and advanced sensors and control systems.	**P**	**3**	**N**

MESE	690	Project	Students will work with a faculty/theme leader on a renewable energy systems topic and develop an in-depth understanding and provide a written report that includes problem definition, literature review, studies/analysis conducted and conclusions. The written report will be graded. This project will be substituted for the required systems engineering course.	P	3	N
			# of REQUIRED Credit hours in Guided Electives (i.e., electives for a focused or track/concentration/speciality are). If 9 hours is required and there are 15 hours to choose from, then only 9 hours are required) Note: number recorded will automatically populate Guided Elective hours in "Summary of Total Program Hours" table		3	NA
FREE Elective Courses (i.e, general program electives, open to the students to choose) (if applicable)						
Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or	Credit Hours	Existing (E) or New (N) Course
ME	575	Computational Modeling of Nanomaterials or Computational Materials Science	Introduction to crystal structures and chemical bonding in solids; basic of statistical thermodynamics; introduction to different materials modeling techniques at nano- to meso-scopic scales, namely, Molecular Dynamics, Monte-Carlo, and Density Functional Theory; Energy models from first-principles theory to classical potentials; Approximation associated with each technique, and their expected level of accuracy; modeling of surface diffusion processes, elastic constants, mechanical strengths, thermal conductivity and defect properties; "Hands-on" sessions on how to set-up simulations using available open-source packages, visualize and analyze output; introduction to emerging techniques like machine learning and materials informatics to design materials tailor-made for a specific functionality		3	E
CHEM	659	Solid State Chemistry	Course content will include the synthesis methods, characterization and properties of solid-state materials. Various techniques of preparation of solid-state materials as well as advantages and disadvantages of each method are discussed. The main properties of interest are structural properties, magnetism and charge transport in solid state. Basic principles as well as methods of investigation and characterization of these properties will be discussed in this course.		3	E
CHEM	621	Electroanalytical Chemistry	Principles of modern voltammetric and potentiometric methods of chemical analysis including fundamental theory, instrumentation, and applications.		3	E
ECE	531	Power Electronics	We cover power switching devices, AC to DC conversion of electric energy, DC to DC conversion, with and with magnetic isolation (transformers); DC to AC conversion (Inverters) of various forms. Also cover concepts related to grid connected power electronics; This is an advanced course that considers the circuits and control topics for integration of renewables to the power grid. We look at the circuits, systems and controls for grid connected PV applications. The course also covers material about grid connection of wind mills. There is also discussion about Micro-grids. (This course also can be used to substitute one of the energy conversion courses)		3	E
ME	572	Electrochemical Energy Storage	This course will cover functional knowledges of various energy storage modes with emphasis on electrochemical energy storage. It will introduce the fundamental principles of different energy storage systems such as mechanical energy storage, thermal energy storage, chemical energy storage, and electrochemical energy storage. The practical applications for each energy storage system will be discussed. This course will also focus on the chemistry and materials science behind these energy storage systems. In addition, the basis performance analysis of different types of batteries will be introduced and compared. (This course also could be used for substituiting one of energy conversion courses)		3	E
CHE	694	Industrial Catalysis	This course will teach concepts involved with industrial catalysis involved in many chemical processing applications. (This course could be used as a energy conversion course)		3	N
			Total # of Credit Hours in Free Electives (i.e., general program electives) (if applicable) Note: number recorded will		3	NA

Summary of Total Program Hours	Required Core Hours (i.e., # of hours in degree program core)	12	NA
	Required Program Options - Track/Concentration/Specialty Hours (if applicable)	12	NA
	Guided Elective Hours (e.g., focused or track/concentration/speciality area specific electives) (if applicable)	3	NA
	Free Elective Hours (i.e., general program electives) (if applicable)	3	NA
	Total # of credit hours required for Program	30	NA
Information to be completed by PIE Office			
	# of new courses	4	
	Total # of Courses (includes new and existing)	18	
	Precentage of new courses (more than 25% may require SACS Substantive Change)	22%	

University of Louisville
MS - MASTER OF SCIENCE
14.1801-Materials Engineering.
Submission Date: 04/28/2020 15:58

Full Proposal - Basic Info

Institution :	University of Louisville
Program Type :	Single Institution
Program Name :	Materials and Energy Science and Engineering
Degree Level :	Master's
Degree Designation :	MASTER OF SCIENCE
CIP Code (2-Digit) :	14-ENGINEERING.
CIP Code :	14.1801-Materials Engineering.

Academic Unit (e.g. Department, Division, School) :	Speed School of Engineering
Name of Academic Unit :	Speed School of Engineering
Name of Program Director :	Mahendra K. Sunkara, PhD

Intended Date of Implementation :	8/1/2020
Anticipated Date for Granting First Degrees :	12/1/2021
Date of Governing Board Approval :	4/23/2020

Institutional Contact Information

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Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

The proposed MS in MESE degree program objectives are to:
1. Train highly motivated graduate students who demonstrate advanced-level materials and energy science and engineering expertise and practical engineering experience necessary to function as professionals. (Advanced Knowledge and Life-long Learning)
2. Develop students with the materials and energy science and engineering expertise and practical experience necessary for employment in industry, academia, or government, or for further professional/graduate studies. (Career Opportunities)
3. Develop students with an understanding of the broad social, ethical and professional issues of contemporary science and engineering practices. (Awareness and Responsibility)

2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The MS in MESE supports UofL's mission of practicing and applying research, scholarship, and creative activity toward achieving preeminence as a nationally recognized metropolitan research university.

Establishing a MS in MESE will address a number of goals of the University's Strategic 2020 Plan and its 21st Century Initiative. Specifically, as related to the relevant goals stated in these initiatives, the MS in MESE will:

2020 Plan
1. Implement STEM initiatives leading to more graduates with science, technology, engineering, and mathematics majors.
2. Increase the quality and quantity of graduates in materials and energy sciences and engineering to improve energy infrastructure and economic development for the community.
3. Increase the emphasis on translational research in materials and energy, leading to both commercialization and entrepreneurship in the new energy economy.

21st Century Initiative
1. Revenue Enhancement: “Strategically grow enrollment in high demand fields.”

In addition to these university-wide goals, this degree will also address several goals outlined in the JB Speed School of Engineering 2020 Strategic Plan:

1. Establish areas of research excellence in materials and energy science and engineering.
2. Attract motivated, prepared, and talented students into all degree programs.
3. Provide outstanding experiential learning experiences.

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3. Explain how the proposed program addresses the state's postsecondary education strategic agenda.

The MS in MESE is in alignment with the State of Kentucky's Stronger by Degrees: 2016- 2021 post-secondary education strategic agenda. A major goal of this plan is to raise Kentucky's educational attainment level to 58% by 2025, up from its current level of 45%. CPE's post-secondary education goals include "improving the readiness of employability of post-secondary education graduates" and to "advance Kentucky's STEM and S&T agendas." The MS in MESE aligns with this agenda by providing a mechanism to enable Kentuckians to succeed in a global economy (Vision), delivering a world-class education to our students through the creation and application of new knowledge, and growing the economy of the Commonwealth (Mission). Moreover, the proposed degree program will prepare students for career paths in STEM and materials and energy fields. Many STEM and advanced materials/energy jobs have relatively high salaries; CPE recognizes that "highly educated people create additional savings from lower costs in health, unemployment, public assistance and crime." Graduates from the MS in MESE who stay in Kentucky will also help to improve the energy infrastructure and economic revival with high-tech industry involving various clean energy technologies and advanced materials.

The proposed program fulfills the Research, Economic, and Community Development criteria - Kentucky will be stronger by generating new knowledge, producing high-demand degrees, increasing the educational attainment of its workforce, and improving its communities. This program will increase educational attainment and quality of life in Kentucky communities through regional stewardship (Strategic Policy Objective 8). Additionally, by addressing the need for Efficiency and Innovation, Kentucky will be stronger by creating new ways of serving more post-secondary students in a challenging resource environment by increasing academic productivity through innovation (Strategic Policy Objective 9) and maximizing post-secondary and adult education resources (Strategic Policy Objective 10).

4. Explain how the proposed program furthers the statewide implementation plan.

The statewide implementation plan has now been incorporated into a subsection of the newly established Stronger by Degrees: 2016-2021. The implementation plan promotes a legislative agenda, which supports post-secondary education through various funding initiatives, including a new Outcome-Based Funding Plan. UofL's Strategic Plan must address these outcome-based metrics once they are finalized. Our proposed MS in MESE aligns with goals of the UofL Strategic Plan, as well as the Stronger by Degrees plan (see items 2 and 3 above).

Participating Speed School of Engineering and Arts & Sciences faculty and the Program Director have demonstrated a nationally and internationally-recognized level of research productivity as evidenced by the quality and placement of graduate BS and MEng students, presentations at national and international conferences, publications in high-impact peer-refereed journals, and extramural funding. The success of these existing faculty will enable the delivery of high-quality educational and research opportunities for students pursuing the thesis option and will lead to graduates capable of translating their knowledge to address translational aspects of advanced materials and clean energy technologies. In summary, the proposed MS in MESE at UofL will exceed the requirements of our State's Strategic Agenda.

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Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

1) Students will demonstrate the fundamental knowledge of materials structure, properties, processing, and their application to energy conversion and storage technologies.

2) Students will demonstrate a good understanding of energy challenges and contemporary research being done in the field of energy.

3) Students will be able to communicate scientific and engineering aspects on materials and energy to peers, colleagues, and the community at large.

4) Students will be able to think, design, evaluate, and enable systems-level approaches for enabling energy solutions for practical applications.

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

The program objectives are to train students with fundamental knowledge on materials and energy concepts, make them aware of contemporary topics and research, establish proficiency in communicating with peers about materials and energy science and engineering concepts, and enable success in their professional careers. To achieve these program objectives, the curriculum is divided into four parts. In the first part, core fundamental courses instruct students about structure, properties, and techniques of measurement for energy materials, fundamental energy conversion, and energy storage concepts and challenges. In the second part, courses teach students the fundamentals of processing these materials and devices for developing energy conversion and storage systems. In the third part, courses teach in-depth concepts on various energy conversion and storage technologies. In the fourth part, several guided electives, including project experience, are designed to teach students how to design, evaluate, and practice an engineering solution for addressing an energy problem or challenge, thus giving students the practical experience to be successful in their profession.

The Conn Center offers a seminar series and focused workshops (ex: Nanomaterials and RE3 workshops conducted since 2003 – See http://www.re3workshop.org) in which distinguished researchers from various universities and national laboratories deliver lectures on the latest advances with various concepts related to advanced materials and energy conversion and storage. Student educational experiences will be enhanced by research opportunities in laboratories conducting basic and translational research on solar energy conversion, energy storage, biofuels and biomass conversion, solar fuels, materials characterization, and advanced energy materials. Students matriculating from this program will have a unique skill set with capabilities to design, develop, and translate potential materials and energy science and engineering solutions and technologies that will advance their ability to affect quality of life. Through their project or guided electives in systems engineering
courses on energy science and engineering, students will gain important experiential learning necessary to be successful in their professional careers. Student progress will be recorded and reviewed by the faculty subcommittee for the program.

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3. Highlight any distinctive qualities of this proposed program.

There is a strong materials and energy science and engineering community at the University of Louisville. This community is built upon established collaborations between the Conn Center for Renewable Energy Research faculty and staff and faculty in the College of Arts and Sciences' Departments of Chemistry and Physics, along with faculty in other departments within the Speed School of Engineering, including Chemical Engineering, Mechanical Engineering, Electrical Engineering, Computer Engineering, Civil Engineering, Environmental Engineering, and Industrial Engineering. These multidisciplinary collaborations have led to extensive federal and private foundation research funding targeting the development of materials and energy science and engineering solutions to improve energy use and quality of life.

The extensive materials and energy science and engineering community at UofL will provide a rich multi-disciplinary training environment for students in the proposed program, enabling them to receive extraordinary hands-on experience in laboratories directed by materials and energy science and engineering faculty. Students in the program will have a unique opportunity to conduct their research while functioning on multi-disciplinary teams that are based upon established engineer-scientist collaborations and an associated track record of successful development and translation of materials and energy science and engineering innovations.

To support the training of students in state-of-the-art research methodologies and techniques, MS MESE students will have access to a number of multi-disciplinary and core research facilities, as well as to individual faculty laboratories. Specifically, students will have access to the multi-disciplinary facilities of the Conn Center for Renewable Energy Research.

UofL established the Conn Center for Renewable Energy Research at the J.B. Speed School of Engineering in 2009. The Conn Center provides leadership, research, support, and policy development in renewable energy; advances the goal of renewable energy; and promotes technologies, practices, and programs that increase efficiency for energy utilization. The Center promotes partnerships among colleges and universities, private industries, and non-profit organizations to actively pursue federally and privately funded research and development resources that are dedicated to renewable energy solutions. Conn Center research themes and facilities include: Solar Manufacturing; Solar Fuels; Biofuels and Biomass Conversions; Energy Storage; Advanced Energy Materials; Materials Characterization; and Energy Efficiency and Conservation. The Conn Center houses instrumentation in 12 laboratories to support research in its core themes, as follows: Advanced Energy Materials; Biomass and Biofuels; Device Fabrication and Characterization; Energy Storage; Materials Characterization; Power Electronics; Solar Fuels; Solar Manufacturing; and Ultrafast Spectroscopy.

4. Will this program replace any existing program(s) or specializations within an existing program?

NO

5. Include the projected faculty/student in major ratio.

There are 29 participating faculty who are listed on the SACS Faculty Roster Form. By the 5th year, we anticipate 30 students will be in the program, yielding a faculty to student ratio of approximately 1:1.

6. Is there a specialized accrediting agency related to this program?

NO

Do you plan to seek accreditation?

NO

Please explain your rationale for not seeking accreditation.

ABET does not provide accreditation for M.S degrees.

7. Attach SACS Faculty Roster Form.

5 Form--Faculty Roster MS in MESE.pdf

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8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

This program will be supported by the Ekstrom (Main) and Kornhauser Libraries, which house over 2.1 million volumes, approximately 16,000 current journal subscriptions, special collections, media, and microforms. In addition, the library has an online virtual library that provides faculty, staff, and students access to over 20,000 full text electronic journals, inter-library loan services, electronic books and databases, reference materials, and other library resources. The library resources are more than adequate to support the needs of the faculty and students in the proposed MS program.

A letter from the Dean of the UofL Libraries is included, indicating that the University's collection of journals, electronic resources and special collections is adequate to support the MS in MESE program.

7 LIB--Letter of Support for MS MESE.pdf

8 LIB--Collections review for MS MESE.pdf

B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

This program is supported by facilities and instructional equipment available in the laboratories of the Conn Center for Renewable Energy Research, the Micro/Nano Technology Center, the Huson Microtechnology Core Facility, and the Rapid Prototyping Center, all located on the Belknap Campus of UofL.

Instructors will have access to these facilities to assign class projects and to demonstrate materials and energy science and engineering-centric concepts.

See the attachment for a complete list of laboratories and equipment.

Physical facilities.docx

9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

The Speed School of Engineering has rigorous standards for admission into graduate programs, and those standards will apply to the MS MESE program as well. Applicants must meet UofL Graduate School and Speed School graduate admission requirements along with additional program requirements.

Applicants must, as a minimum, have completed an equivalent Bachelor's Degree in Engineering from an ABET-accredited program or an equivalent Bachelor's Degree in Physics or Chemistry from an accredited program. Successful applicants will typically have a 3.00 cumulative GPA in their BS program. Applicants with an undergraduate GPA of 2.75 will be considered for provisional acceptance. Applicants must submit: 1) transcripts of all college-level courses; 2) at least two letters of recommendation; 3) a written statement by the applicant describing previous experience related to materials and energy science and engineering; 4) a statement as to how the MS MESE will allow them to fulfill their career goals; and, 5) GRE verbal, quantitative, and writing assessment-analytical scores. Ideal applicants will have GRE scores at or above the 60th percentile on verbal and quantitative sections.

Students whose native language is non-English or whose degree is from a non-US accredited institution are required to submit TOEFL scores (administered by the Educational Testing Service). A minimum TOEFL score of 80 or higher on the internet-based test or 550 or higher on the paper-based test is required. Alternatively, a minimum of 6.5 on the International English Language Testing System will be accepted.

Students must maintain a 3.00 GPA at a minimum in their first semester of study or they will not be allowed to continue in the program. Student performance will be monitored and assessed throughout the program using the following metrics to assure students completing the program have an advanced level of competency in the field of materials and energy science and engineering.
• Course performance (GPA)
• MESE Design/ Project performance

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10. Clearly state the degree completion requirements for the program.

Students must meet degree requirements established by the Speed School of Engineering, in addition to program requirements. The program must be completed with a 3.00 GPA or higher in all graduate courses used to satisfy degree requirements. MS MESE students must complete 30 credits, including an optional project in lieu of one systems engineering course. All degree requirements must be completed within six years from admission into the program.

Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	30	15	3	0

12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

Transfer of credits from a master's degree in engineering from an accredited institution is permitted. However, the number of transfer credits (up to a maximum of 6 credit hours) will be evaluated on a case-by-case basis by the Program Director, who will forward the petition to the Dean of the Speed School of Engineering for final approval. Sufficient course descriptions and a transcript must accompany the petition so that the request can be evaluated. Transfer of credits up to six credit hours is a university-wide policy.

The proposed program is mainly for face-to-face offerings. Future plans for converting the proposed program into an online program will facilitate further collaboration between UofL and UK programs. In the online program, it will be possible to share courses and offer joint courses, etc.

13. List courses under the appropriate curricular headings.

4 Form--KPPPS Courses--MS in MESE.pdf

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

YES	Distance learning
NO	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
NO	Technology-enhanced instruction
NO	Evening/weekend/early morning classes
NO	Accelerated courses
NO	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

Most courses will be delivered in a face-to-face lecture or laboratory setting. However, some technical elective courses are available online via distance learning, with increased online course offerings anticipated in the future. Our goal is to offer a complete online degree program within two years of the start of this on-campus degree program.

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

Faculty that will be associated with the proposed MESE program (about 29 of them) have already been mentoring PhD students' research activities dealing with advanced concepts in materials and energy science and engineering. PhD students graduating with dissertations reflecting materials and energy research are finding great industrial positions at companies such as Intel, Applied Materials, etc. In fact, we have not been able to produce enough graduates for their needs.

According to the U.S. Department of Labor, in 2010 there were about 24,400 materials engineers in the USA; this is 1.6% of the 1.5 million engineering jobs in the USA. The U.S. Department of Labor predicts growth in materials science to be about the same as for the average of all engineering jobs through 2014, at about 8% to 9% per year. This job growth is projected to result from increased use of composite and other non-traditional materials developed through nanotechnology and biotechnology research.

To give an idea of the magnitude of employment opportunity in the field, data from the U.S. Department of Labor for 2010 is reported at https://www.careercornerstone.org. The materials field holds a significant portion of the U.S. workforce. It has more practitioners than Bioengineering, Mining, Nuclear, and Petroleum Engineering careers, and it is close in employment to Chemical Engineering, with traditional disciplines (Electrical, Civil, Mechanical, Industrial) holding the bulk of the employment. Materials Science and Engineering graduates work in the research and development fields of materials science. Since these jobs require advanced degrees, they typically have higher salaries than those at the BS level.

b. Identify the applicant pool and how they will be reached.

Prospective students will be those who have completed a bachelor’s degree in engineering from an ABET-accredited school or an equivalent bachelor’s degree in Physics or Chemistry from an accredited program. Program announcements will be sent to top-ranked engineering schools and materials and energy science and engineering focused companies throughout the world.

c. Describe the student recruitment and selection process.

Students will be recruited through web-based marketing of the program, along with advertisement of the program at regional, national, and international materials and energy science and engineering society conferences. Program announcements will be sent to top-ranked engineering schools and materials and energy science and engineering focused companies throughout the world. It is also our intention to advertise heavily through our Conn Center’s partner schools in India, China, Colombia, Nigeria and Europe.

d. Identify the primary feeders for the program.

Accredited engineering schools across the U.S., including UofL, will serve as feeders for the program. In addition, we also expect to see applications from several students graduating with Physics and Chemistry majors from regional universities within Kentucky and neighboring states. Furthermore, we currently have International Memoranda of Understanding with Indian Institutes of Technology (Banaras; Delhi); Universidad Del Valley in Cali, Colombia; International Renewable Energy Research Center at Xian Jiang Tong University in Xian, China; Federal University of Technology in Akure, Nigeria; Universities of Loughborough/Northampton in England with their newly approved PhD in Energy Science; and the University of Dubai, etc.

Given the national and international reputation of our MESE faculty, it is reasonable to expect that engineering graduates from across the nation and worldwide will find our program attractive.

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e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

According to an American Society of Engineering Education report, 702 students enrolled for a Master's degree in materials engineering in 2006 in the U.S. This number increased to 1,119 students in 2015, nearly a 60% increase over 9 years, demonstrating significant student demand.

https://www.asee.org/papersandpublications/publications/collegeprofiles/15EngineeringbytheNumbersPart1.pdf

f. Project estimated student demand for the first five years of the program.

Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2020-2021	0	8
2021-2022	8	8
2022-2023	8	16
2023-2024	16	20
2024-2025	20	28

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2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

In 2018, there were 2,324,866 energy efficiency jobs and 242,343 solar jobs, with cumulative solar installations expected to double by 2024. Current market demand for a workforce with advanced training in the energy materials sector is greater than average, with 7% to 9% growth in 2019. This is especially true for the solar energy and energy efficiency sectors.

https://www.seia.org/solar-industry-research-data https://www.thesolarfoundation.org/national/ https://www.usenergyjobs.org/

Established and announced corporate ventures in the region are speculated to provide an additional 100 – 200 jobs for Materials and Energy Science and Engineering graduates in the next 5 years, including EnerBlu (Battery mfg; Announced but status unknown), Clariant Corporation (catalysts), Kentucky Advanced Materials Manufacturing (industrial diamonds), Braidy Industries (aluminum), and Nucor (steel).

An additional 10 regional startup companies in the materials and energy sector are estimated to provide between 25 and 50 jobs over the next 5 years as well, including Pyrochem Catalyst Company (catalysts), Advanced Energy Materials, LLC (energy materials), Bert Thin Films, LLC (solar), and BioProducts, LLC (biofuels). Recently, the KY Cabinet for Economic Development (CED) aimed at recruiting companies that are involved with energy materials and systems. The proposed MS program could be a great source of workforce to enable such industries.

Occupation: Wage, # of Openings
Materials Engineer: $92,961 (Region), 5,070 (Region)
$81,173 (State), 67 (State)
$98,390 (Nation), 27,700 (Nation)

Materials Scientist: $93,176 (Region), 1,010 (Region)
$78,692 (State), 34 (State)
$78,330 (Nation), 95,800 (Nation)

Environmental Scientist: Unknown (Region), Unknown (Region)
$51,645 (State), 972 (State)
$71,130 (National), 85,000 (National)

3. Academic Disciplinary Needs:

This degree will offer advanced-level training to provide students with in-depth knowledge of materials and energy science and engineering in areas such as materials science and engineering, materials chemistry and physics, processing, energy conversion and storage devices, and systems-level engineering. Student educational experiences will be enhanced by research opportunities in laboratories conducting basic and translational research on solar energy conversion, energy storage, biofuels and biomass conversion, solar fuels, materials characterization, and advanced energy materials. This degree provides a strong foundation for those wishing to pursue doctoral studies in their respective disciplines.

Students graduating from the proposed MS degree in MESE will be prepared for pursuing research in renewable energy. The program will be used to feed our existing PhD programs in engineering and science disciplines with students well trained and motivated to work on materials and energy research during their dissertations. This multi-disciplinary degree program housed in the Speed School of Engineering will strengthen various PhD programs at the University of Louisville and other schools within the region. The demand for PhD students in energy research at institutions worldwide has increased tremendously with increased research funding. The employment prospects for PhDs in sciences and engineering with materials, processing, and energy device concepts have grown with the growing industry sectors in electronics, LED, and battery cell and solar cell manufacturing in the U.S. and worldwide. We expect to see much larger demand for materials and energy science programs and their graduates.

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a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

YES

Please identify similar programs in other SREB states and in the nation.

There are many programs in Materials Science and Engineering in SREB states. They include the institutions listed below.

As stated below for the program at University of Kentucky, these programs do not address energy science and engineering aspects and differ in their curricula.

• Alabama - Univ of Alabama, Auburn Univ, Univ of Alabama at Birmingham, Univ of Alabama in Huntsville, Tuskegee Univ, Alabama A&M Univ
• Arkansas – Univ of Arkansas, Arkansas State Univ, Univ of Arkansas at Little Rock, Arkansas Tech Univ
• Delaware – Univ of Delaware
• Florida – Univ of Florida, Univ of Central Florida, Univ of South Florida, Florida International Univ, Florida State Univ, Embry-Riddle Aeronautical Univ, Florida Polytechnic Univ, and Polytechnic Univ of Puerto Rico – Miami
• Georgia – Georgia Institute of Technology, Emory Univ, Univ of Georgia, Mercer Univ
• Kentucky – Univ of Kentucky
• Louisiana – Louisiana Tech Univ, Univ of Louisiana at Lafayette, Southern Univ & A&M College, McNeese State Univ

• Maryland – Johns Hopkins Univ, Univ of Maryland – College Park, Morgan State Univ, Loyola Univ
• Mississippi – Mississippi State Univ, Univ of Mississippi, Jackson State Univ
• North Carolina – Duke Univ, Univ of North Carolina at Chapel Hill, North Carolina State Univ at Raleigh, Univ of North Carolina at Charlotte, North Carolina A&T State Univ
• Oklahoma – Univ of Oklahoma – Norman, Oklahoma State Univ, Oklahoma Christian Univ
• South Carolina – Clemson Univ
• Tennessee – Vanderbilt Univ, Univ of Tennessee – Knoxville, Univ of Memphis, Tennessee Technical Univ, Univ of Tennessee – Chattanooga, Christian Brothers Univ, Tennessee State Univ
• Texas – Rice Univ, Univ of Texas at Austin, Southern Methodist Univ, Univ of Texas at Dallas, Texas A&M Univ – College Station, Baylor Univ, Letourneau Univ, Texas Tech Univ, Univ of Houston, Univ of North Texas, etc.
• Virginia – Univ of Virginia, Virginia Polytechnic Institute & State Univ, Virginia Commonwealth Univ, Old Dominion Univ, Norfolk State Univ
• West Virginia – West Virginia Univ, Marshall Univ

There are energy science and engineering programs being offered at West Virginia University and Texas A&M University with slightly different names.

MS degree programs in energy sciences and engineering or energy systems engineering are being established more recently. The list may increase in the next five years.

b. Our records indicate the following similar programs exist at public institutions in Kentucky.

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#Enr = Fall Enrollments , #Grd = Academic Year Graduates

		2019 - 20		2018 - 19		2017 - 18		2016 - 17		2015 - 16		2014 - 15	
Institution	Program	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd
University of Kentucky	*Materials Science and Engineering			2	1	4	2	5	2	5	2	3	2

c. Does the proposed program differ from existing programs?

YES

Please explain.

University of Kentucky is the only university in the state of Kentucky to offer a Master's and PhD in Materials Science and Engineering. The curriculum for UK's MS degree in materials science and engineering involves graduate courses on metallurgy; mechanical design; metals processing; polymers; electronic packaging systems; metal cutting operations; dislocation theory; mechanical metallurgy; etc.

There are only a few courses specifically related to our core on materials science and engineering that are potentially common, such as advanced materials science and engineering; computational materials science; opto-electronic properties and devices; and advanced materials characterization. We have collaborated and shared the course on advanced materials characterization and offered the course together at both UofL and UK campuses via Network/TV. We plan to collaborate on offering such courses together and continue to develop the curriculum.

UofL's proposed curriculum gives in-depth training with various aspects related and focused entirely on energy materials science and engineering. Our program could potentially be offered to UK students as well via TV and online.

Students who are admitted to UK's MS/PhD program join that program due to their interest in the PhD program, whereas our program will be for students only interested in the MS.

The proposed MS degree program at UofL will only take about one year to complete, whereas the one at UK takes two years to complete.

d. Does the proposed program serve a different student population (i.e., students in a different geographic area) from existing programs?

YES

Please explain.

The UofL degree program will serve students from existing programs, including the metropolitan Louisville area as well as the greater population of Kentucky and Indiana and SREB states. The online degree planned for implementation in Y3 of the program will reach national and international audiences.

e. Is access to existing programs limited?

NO

f. Is there excess demand for existing similar programs?

YES

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Please explain.

We believe the demand in existing programs is robust, and we expect increasing demand given the need for materials and energy science and engineering in the workforce. Moreover, the statewide STEM initiative to improve Kentucky's position for success in the knowledge-based economy by expanding and strengthening educational and economic development opportunities in science, technology, engineering, and mathematics should increase the demand for programs such as the MS in Materials and Energy Science and Engineering. The Kentucky General Assembly has the goal of substantially increasing the number of mathematicians, scientists, and engineers in the Kentucky workforce to foster economic growth and provide high quality jobs for Kentuckians.

g. Will there be collaboration between the proposed program and existing programs?

YES

Please explain the collaborative arrangements with existing programs.

In the past, we have collaborated and shared a course on advanced materials characterization and offered the course together at both campuses via Network/TV. We plan to collaborate on offering such courses together and continue to develop the curriculum.

Our proposed curriculum gives in-depth training with various aspects related to and focused entirely on energy materials science and engineering. Other courses could potentially be offered to UK students as well via online delivery.

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

YES

Please provide a brief summary of additional resources that will be needed to implement this program over the next five years.

Funds for 1 Administrative Staff person at 50% FTE include annual base salary at $50K and fringe at 28.5% with a 3% annual raise.

Funds for Other Professionals (Existing) include 1 month base salary each at $10K and fringe at 28.5% with a 3% annual raise for 3 theme leaders in Y1-2 and 4 theme leaders in Y3-5.

Funds for Faculty (Existing) include 1 month base salary each at $10K each and fringe at 28.5% with a 3% annual raise for 3 faculty in Y1-2 and 6 faculty in Y3-5.

Funds for GTA lines include a stipend ($22,008/yr), health insurance ($254.07/month), and 12 months full-time graduate tuition charged at the resident rate for 1 GTA in Y1-2, 2 GTAs in Y3, 3 GTAs in Y4, and 4 GTAs in Y5. A 3% annual inflation rate was applied to the health insurance cost and 2.5% to the tuition cost.

Funds for supplies are allocated at 5K per year and for facilities access to the Conn Center laboratories at 10K per year in lieu of equipment charges to carry out curricular assignments and experiments.

Funds are allocated for new subscriptions to journals focused on materials and energy science and engineering, such as "Advanced Energy Materials" by Wiley starting in Y3.

Funds for curriculum development are allocated at 10K per year starting in Y3.

Institutional overhead is charged to the revenue from tuition at a rate of 25%.

2. Will this program impact existing programs and/or organizational units within your institution?

YES

Please describe the impact.

The impact is positive. This program will strengthen the existing degree programs at UofL. The curriculum proposed here will be used for offering graduate certificates in materials and energy to students pursuing master's and doctoral degrees in the following disciplines: Chemical Engineering, Mechanical Engineering, Physics, and Chemistry. Students from other disciplines such as Civil, Electrical, Computer, and Industrial Engineering will also benefit from the offering of courses within the proposed program. Students can obtain specialization through graduate certificates while pursuing their respective disciplinary degrees. Also, the graduates from this one-year MS degree will be adequately trained and motivated to pursue PhD degrees from their respective disciplines. We expect to see improvement in our attraction and recruitment of students into the existing PhD programs in sciences and engineering if the proposed MS degree program is successful.

3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

In addition to advancing Kentucky's STEM initiatives by producing highly trained materials and energy scientists and engineers, this program is expected to grow overall enrollment at UofL. We project an enrollment of approximately 30 students by Year 5, yielding annual tuition revenue of roughly $763,471. This revenue will offset the investment cost of the 2 new GTA's ($119,419) needed to deliver the program. Less tangible benefits will also potentially include attracting graduates of the MS MESE program into PhD programs. Those who join the workforce following graduation from the MS MESE program and choose to remain in Kentucky will contribute to the growth of Kentucky's economy and improvements in the quality of life of Kentuckians.

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A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Internal					
Allocation :	0	0	0	0	0
Reallocation :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Student Tuition					
New :	229341	235074	465575	610810	763471
Existing :	0	0	0	0	0

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A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	Projected revenues are based upon full-time enrollment for matriculation in an average of 4 terms for onsite students and 5 terms for online students (starting in Y3), but with only 3 terms calculated per year at 24 credit hours/year for onsite students and 18 credit hours/year for online students. Resident/non-resident Master's student ratios of 60%/40% are used for tuition calculations based on the prior 3 years of Speed School graduate enrollment demographics. Online degree starts in Y3. Note: Y0 (2019) full time tuition for resident = $6,500; full time tuition for non-resident = $13,557; graduate online tuition = $764/hr. Rate of increase per year is 2.5% on resident and non-resident tuition and 7% for online tuition. Calculations by Year: In Y1, the program takes 8 new onsite students at 60/40 residency for 3 terms earning 30 credit hours each at 12 hrs + 12 hrs + 6 hrs. In Y2, the program takes 8 new onsite students at 60/40 residency for 3 terms earning 30 credit hours each. In Y3, the program takes on 8 new onsite students at 60/40 residency for 3 terms earning 30 credit hours each and 8 new online degree students for 3 terms earning 30 credit hours each. In Y4, the program takes on 12 new onsite students at 60/40 residency for 3 terms earning 30 credit hours each and 8 new online degree students for 3 terms earning 30 credit hours each. In Y5, the program takes on 16 new onsite students at 60/40 residency for 3 terms earning 30 credit hours each and 12 new online degree students for 3 terms earning 30 credit hours each.				
Total					
New :	$229,341	$235,074	$465,575	$610,810	$763,471
Existing :	$0	$0	$0	$0	$0
Total Funding Sources :	$229,341	$235,074	$465,575	$610,810	$763,471

B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Staff: Executive, administrative, and managerial					
New :	32125	33089	34081	35104	36157
Existing :	0	0	0	0	0
Other Professional					
New :	0	0	0	0	0
Existing :	38550	39706	54530	56166	57851
Faculty					
New :	0	0	0	0	0
Existing :	38550	39706	81795	84249	86777
Graduate Assistants (if master's or doctorate)					
New :	45136	45729	92678	140892	190420
Existing :	0	0	0	0	0
Student Employees					
New :	0	0	0	0	0

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Funds for 1 Administrative Staff person at 50% FTE include annual base salary at $50K and fringe at 28.5% with a 3% annual raise. Funds for Other Professional (Existing) include 1 month base salary each at $10K and fringe at 28.5% with a 3% annual raise for 3 theme leaders in Y1-2 and 4 theme leaders in Y3-5. Funds for Faculty (Existing) include 1 month base salary each at $10K each and fringe at 28.5% with a 3% annual raise for 3 faculty in Y1-2 and 6 faculty in Y3-5. Funds for GTA lines include a stipend ($22,008/yr), health insurance ($254.07/month), and 12 months full-time graduate tuition charged at the resident rate for 1 GTA in Y1-2, 2 GTAs in Y3, 3 GTAs in Y4, and 4 GTAs in Y5. A 3% annual inflation rate was applied to the health insurance cost and 2.5% to the tuition cost.				
Equipment and Instructional Materials					
New :	5000	5000	5000	5000	5000
Existing :	10000	10000	10000	10000	10000
Narrative Explanation/Justification :	Funds for supplies are allocated at 5K per year and for facilities access to Conn Center laboratories at 10K per year in lieu of equipment charges to carry our curricular assignments and experiments.				
Library					
New :	0	0	5000	5000	5000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Funds are allocated for new subscriptions to journals focused on materials and energy science and engineering, such as "Advanced Energy Materials" by Wiley starting in Y3.				
Contractual Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Faculty Development					
New :	0	0	10000	10000	10000

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Funds for curriculum development are allocated at 10K per year starting in Y3.				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	None				
Other					
New :	57335	58769	116394	152703	190868
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Institutional overhead is charged to the revenue from tuition at a rate of 25%.				
Total					
New :	$139,596	$142,587	$263,153	$348,699	$437,445
Existing :	$87,100	$89,412	$146,325	$150,415	$154,628
Total Budget Expenses/Requirements :	$226,696	$231,999	$409,478	$499,114	$592,073
Grand Total					
Total Net Cost :	$2,645	$3,075	$56,097	$111,696	$171,398

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Full-Proposal - Assess: Program Review and Assessment

1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

1) Mastery of basic graduate knowledge in the materials and energy science and engineering topics. This outcome will be measured through final exam grades in two core courses.
2) Thorough knowledge about contemporary topics on materials research for energy challenges. This outcome will be measured through a literature review as part of a term paper in a course offered in the spring semester.
3) Strong oral and written communication skills. This outcome will be measured through the quality of term paper presentations in one of the courses offered in the spring semester.
4) Knowledge about professional practice of materials and energy science and engineering. This will be measured through output in the systems engineering courses during the summer semester.

The programmatic outcomes and their major measures of success are defined briefly below as part of the expected assessment plans for the graduate programs in Material and Energy Science and Engineering.

1. Fundamental knowledge of materials structure, properties, processing and their application to energy conversion and storage technologies. Fundamental knowledge or basic content about materials and energy science and engineering is addressed in the following curricular components: structure-property-processing-application relationships for materials and energy devices. The student learning for this outcome will be measured through performance on final exams in two core courses: Advanced materials science and engineering; and Advanced energy science and engineering. The target is to have at least a 50% success rate for students passing two out of three questions in the final exams.

2. Good understanding about energy challenges and contemporary research being done in the field of energy. The courses on energy technologies and systems engineering courses will teach students with current and ongoing research and will enable students to review prior research and ongoing research on various concepts. This programmatic outcome will be assessed by surveying students' term papers in one of the energy conversion device courses. The target is to ensure that over 50% of students will score good or better on the course term papers on any energy research topic.

3. Ability to communicate scientific and engineering aspects on materials and energy to other peers, colleagues, and the community at large. Several courses offer opportunities for students to engage in classroom discussions, written term papers, oral presentations, and to attend seminars/workshops organized by the Conn Center and departmental seminars on materials and energy research. In addition, students will also get opportunities to submit written reports from either final projects or from experiential learning in the systems engineering course. This outcome will be assessed by evaluating written reports and oral presentations in one of the courses in the second semester. The target is to have at least 50% of students receive good or better on term paper presentations, both on the written part and oral part.

4. Ability to think, design, evaluate, and enable systems-level approaches for enabling energy solutions for practical applications. Systems engineering courses and projects will provide culminating experience for the various concepts covered in the program. The culminating experience will include a detailed project that will involve a detailed analysis of techno-economics; the integration of various systems; and the design and application of systems at scale for solving energy challenges. The outcome will be assessed by evaluations of all students that take any guided elective or the project. The target is to have at least two thirds of students receive a good or better grade on the reports product from the systems engineering courses and the projects. Some of the products may involve a prototype, a detailed systems design, a techno-economic analysis of a technological solution to a problem, or a proposed technological solution to an energy challenge. Discussions during courses; written term papers; presentations; attending seminars/workshops organized by the Conn Center on materials and energy research; and final project write-ups will also contribute to the assessment of this outcome.

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b. When will the components be evaluated?

Components will be evaluated each semester.

c. When will the data be collected?

Data will be collected each term.

d. How will the data be collected?

Data will be collected in select courses in Fall and Spring in all systems engineering and project courses.

e. What will be the benchmarks and/or targets to be achieved?

1. Fundamental knowledge of materials structures, properties, processing, and their application to energy conversion and storage technologies. The target is to have at least a 50% success rate for students passing two out of three questions in the final exams.

2. A good understanding about energy challenges and contemporary research being done in the field of energy. The target is to ensure that over 50% of students will score good or better on the course term papers on any energy research topic.

3. The ability to communicate scientific and engineering aspects on materials and energy to other peers, colleagues, and the community at large. The target is to have at least 50% of students receive good or better on term paper presentations, both on the written part and oral part.

4. The ability to think, design, evaluate, and enable systems-level approaches to energy solutions for practical applications. The target is to have at least two thirds of students receive a good or better grade on the reports product from the systems engineering courses and the projects.

f. What individuals or groups will be responsible for data collection?

The MS MESE Program Director and faculty subcommittee will be responsible for data collection, but the course instructors will be responsible for submitting the data from their courses.

g. How will the data and findings be shared with faculty?

Results of data analysis will be shared with faculty at an annual MESE faculty and staff retreat to review MESE programs, as well as at faculty meetings as deemed appropriate.

h. How will the data be used for making programmatic improvements?

As a part of the annual MESE retreat or meeting, findings will be evaluated and recommendations for improvement will be discussed as needed.

2. What are the measures of teaching effectiveness?

The UofL Office of Institutional Effectiveness is working on implementing a short set of standardized course evaluation questions related to teaching effectiveness to be used across all student evaluations. These questions were developed in conjunction with a group of unit associate deans. Course evaluations provide direct student feedback to course instructors who are then able to address areas needing improvement. In addition, course evaluations are measured outcomes of teaching performance. As a result, the Program Director will discuss and address any identified weaknesses with instructors.

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Course instructors have access to the Delphi Learning Center's monthly workshops designed to improve teaching effectiveness. Typically, these one-hour training workshops are designed to present new teaching approaches, education paradigms, and instruction of emerging technology to improve teaching effectiveness.

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4. What are the plans to evaluate students' post-graduate success?

Short-term post-graduate success will be defined based upon placement in industry, government agencies, and academic positions. Intermediate and long-term success will be characterized by contributions to the field of materials and energy science and engineering as evidenced by employment advancement, scientific publications, patents issued, honors, start-up companies established, and professional attainment by alumni (targets for these outcome measures are shown below. The MS MESE program will survey alumni in parallel with the SIGS Alumni Tracking program in the first year following graduation and every 5 years thereafter.

Program assessment: targets for post-graduate measures of success

Outcome measure	Target within 5 years post-graduation
Employment advancement	30% of alumni
Scientific publications	50% of alumni
Patents submitted or issued	20% of alumni
Honors	20% of alumni
Start-up companies established	10% of alumni

PROPOSED PROGRAM SUMMARY

Instituion: Murray State University
Program Name: Respiratory Therapy
Degree Designation: BACHELOR OF SCIENCE (BS)
Degree Level : Baccalaureate

Program Description

In the spring 2019, Murray State University partnered with Madisonville Community College and West Kentucky Community and Technical College to offer a Bachelor of Science Respiratory Therapy (BSRT) completion program. The initial development of this program was funded by a USDA Health Services Grant based on an identified need for additional respiratory therapists in the region. According to data from the EMSI economic modeling software, demand for respiratory therapists in Kentucky's Delta Region counties grew by 13.6% from 2007 to 2017 and now stands at 206 jobs, 43% above the national average.

Murray State University will be seeking approval to offer this program from the Council on Postsecondary Education (CPE) and Murray State University's Board of Regents.

The Interim Dean of the School of Nursing and Health Professions, Dr. Dina Byers, was involved with the planning and implementation program. Dr. Byers has worked closely with the Madisonville Community College Respiratory Therapy Program Director, Tina Siddon, to develop the program. The BSRT program includes 25 credit hours that will be offered online. Students will be able to transfer to Murray State University from the community college and complete the degree. Students will be admitted as a cohort and can complete the degree in as few as three semesters. This program was developed mainly as a part-time program which allows students to continue to work while completing the degree. The first cohort will be admitted spring 2021.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

This program will not replace or enhance existing programs at Murray State University. The program will enhance the existing associate degree program in Respiratory Therapy at Madisonville Community College by providing a Bachelor of Science completion program to complement the existing associate-level program at Madisonville Community College.

CIP Code: 51.0908
Credit Hours: 25
Institutional Board Approval Date: 2/28/2020
Implementation Date: 1/11/2021

Student Demand

Year 1 - 15

Year 2 - 45
Year 3 - 45
Year 4 - 45
Year 5 - 45

Market Demand

The Bachelor of Science Respiratory Therapy (BSRT) program is needed because there is a shortage of Respiratory Therapists in western Kentucky and because the new recommended minimum degree requirement for entry-level employment is a Bachelor degree. Two health determinants contribute to the higher-than-average need for respiratory therapists in the region. First, a significant portion of the Delta Region counties in Kentucky lie within the Western Coal Field region of the state. Coal mining remains a major employer in this region, and employees in this line of work often develop significant respiratory issues. A recent study of the prevalence of black lung disease by the National Institute for Occupational Safety and Health found that the disease is at a 25-year high. According to a July 20, 2018, article in the Lexington Herald-Leader, "The study found that 16.1 percent of miners with at least 25 years of experience had simple black lung, the initial phase of the disease, and 4.5 percent had progressive massive fibrosis, the most severe form. The fact that the disease can take years to develop also means more cases are likely to show up in coming years." ("Rate of choking black-lung disease hits 25-year high in Kentucky", Lexington Herald-Leader, July 20, 2018) Further, most of the counties in Kentucky's Delta Region have high instances of adult smoking according to the 2018 County Health Rankings published by the University of Wisconsin's Population Health Institute. Upon completion, this program will provide a local option for obtaining a bachelor's degree in respiratory care, the new recommended minimum for entry-level employment in the field, according to the American Association of Respiratory Care (AARC).

Currently, MCC offers the only respiratory therapist program in western Kentucky. West Kentucky Community and Technical College (WKCTC) is the KCTCS college that serves the Jackson Purchase region, but the college has no respiratory care program because – due to a recent change in accreditation requirements – they cannot secure accreditation from the Commission
on Accreditation for Respiratory Care (CoARC). In its 2015-20 Strategic Plan, the American Association for Respiratory Care (AARC) – the leading national and international professional association for respiratory care – identified the following strategy for advancing the knowledge base and educational preparation of respiratory therapists to ensure the delivery of high-quality patient care: "expedite the development of baccalaureate and graduate degree education in respiratory care with the goal of the baccalaureate degree as entry level." Subsequently in January of 2016, the AARC revised its position statement on Respiratory Therapist Education. The AARC's new position is that "all programs applying for accreditation be able to award a minimum of a baccalaureate degree upon student completion of programmatic and degree requirements." Responding to that recommendation, effective January 1, 2018, CoARC revised its accreditation Standard 1.01 in the Accreditation Standards for Entry into Respiratory Care Professional Practice, prescribing that "an educational sponsor must be a postsecondary academic institution accredited by a regional or national accrediting agency that is recognized by the U.S. Department of Education (USDE) and must award graduates of the program a baccalaureate or graduate degree (emphasis added) upon completion of the program."

The revised standards include the following provision: "For associate degree programs

that applied for accreditation or were accredited prior to January 1, 2018, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the USDE. These programs may continue to award graduates of the program an associate degree as long as they remain in compliance with the CoARC Standards." MCC's respiratory care program continues to operate under this provision, but should the program ever lose its accreditation due to insufficient enrollment, persistence, and/or licensure pass rates there would be no accredited respiratory care program serving Kentucky's western region counties. This proposal includes strategies and resources that will provide this intensive level of support.

Employment Demand

	Regional	State	National
Type Of Job	**Respiratory Therapist**		
Avg. Wage	$49,180	$49,143	$60,280
# Jobs (Postings)	220	1888	134000
Expected Growth	23%	23%	21%

Indicate source of market demand information

Regional and National job data are from the Bureau of Labor Statistics' Occupational Outlook Handbook (2018 data). State job data are from the Kentucky Center for Statistics' Kentucky Occupational Outlook to 2026 (published September 2018).

Academic Demand

Not applicable

Unneccessary Duplication

Similar Program(s):

Program Id	Inst code	Inst Description	Degree Designation	Program Title	Report year
10035	00927500	Northern Kentucky University	BS	Respiratory Care	2015
4318	00199900	University of Louisville	BHS		2015

Comparison of Objectives/Focus/Curriculum to Similar Programs:
Northern Kentucky University:
The Bachelor of Science in Respiratory Therapy degree completion program at Murray State University will differ from the Bachelor of Science in Respiratory Therapy degree completion program at Northern Kentucky University in credit hours, admission criteria and its unique collaboration for accreditation. The degree completion program at Northern Kentucky University requires students to take statistics, have a 2.5 GPA and take a total of 33 credit hours. The BSRT degree completion program at MSU will not require students to take statistics, will admit students with a 2.0 GPA and will only require 25 credit hours of program classes to complete the BSRT degree. The BSRT degree completion program at MSU is unique in that it will be accredited by the Commission on Accreditation for Respiratory Care through a collaboration with Madisonville Community College. Hence, allowing the creation of a curriculum that meets national standards while focusing on the specific educational needs of students matriculating from AAS Respiratory Care programs within the KCTCS system.

Comparison of Student Populations:
Northern Kentucky University:
It is anticipated that Murray State will be able to attract Respiratory Therapist from rural areas. The program at Murray State University is designed for those students who are practicing Registered Respiratory Therapists.

Access to Existing Programs:
Northern Kentucky University:
By offering this program at Murray State University, it will allow those students in western Kentucky to complete a baccalaureate degree in respiratory therapy while continuing to work. With the recent changes in accreditation and national practice standards, we anticipate a large number of associate degree prepared respiratory therapists to return to school to complete the baccalaureate degree.

Feedback from Other Institutions:

Cost

Projected Revenue over Next Five Years ($) : 1361145
Projected Expenses over Next Five Years ($) : 670285

Will Additional faculty be needed? Yes

Additional faculty will be needed to offer this degree program. During the first year of the program, one faculty member will be needed to serve as program director and one faculty member will be needed to provide the didactic instruction of the program. During the second year of the program, one additional adjunct faculty will be needed to teach one 3 credit hour course during the fall and spring semesters and two 3 credit hour courses during the summer semesters. The program will be accredited under Madisonville Community College's accreditation by Commission on Accreditation for Respiratory Care (CoARC). According to CoARC standards, a program director will be needed to manage the program. Murray State University will partner with Madisonville Community College to obtain the expertise o

Provide a budgetary rationale for creating this new program

The program is expected to have a cost of $5,467 the first year (2021). The program is expected to produce revenue, beginning in the second year. Projected revenue in the second year (2022) is $79,648, and projected revenue is $209,893 during the fifth year of the program (2025). The relatively low cost of the first year of operations will be funded by internal reallocations of funds, with no detriment to existing programs. Student and employer demand for the program is high, and revenue from tuition and fees will fund the program completely after the first year of operations.

COVID-19 Question: Murray State – Respiratory Therapy Program

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program.

Response from Murray State:

COVID 19 and social distancing measures should have minimal impact on the proposed Respiratory Therapy program. We plan to implement the program in January 2021, so there should be no impacts to the program this fall semester. The BSRT program will be taught 100% online. The program is a degree completion program and has been designed for the working respiratory therapist. COVID-19 should have minimal impact on enrollment because working respiratory therapists can complete the program while working full-time. The students can take one course at a time so they can continue to work while completing courses. In the longer term, this program could prove to be especially important, as the COVID-19 outbreak will further increase the need for certified respiratory therapists, and the need for accredited bachelor's programs, in our state and region.

Murray State BSRT Curriculum	Credit Hours	Institution where course is taught
Total Course Requirements . . . . . .120 hours		
University Studies Requirements . . . . . 32 hours **(8 hours of science courses fulfill both University Studies and Required Core Courses requirements)**		
One course from each category		
· Oral communication · Written communication · Quantitative reasoning · Scientific Inquiry and Methodologies (must include lab) and one additional course to fulfull BS degree requirements. Fulfilled by required Anatomy and Physiology courses listed below.*		Associate degree institution or Murray State University**
One course from each category		
· Literary and Philosophical Perspectives (Humanities, Literature, Philosophy) · Historical Perspectives (World Civilization, World History) · Creative Perspectives (Art, Creative Writing, Music, Theatre) · Social and Behavioral Perspectives (Social/Behavioral Sciences · Cultural and Diverse Perspectives and Responsible Citizenship		Associate degree institution or Murray State University**
Required Core Courses . . . . . 96 hours		
BIO 227 Human Anatomy or equivalent*	3	
BIO 228 Human Anatomy Laboratory or equivalent*	1	Associate degree institution
BIO 229 Human Physiology or equivalent*	3	
BIO 230 Human Physiology Laboratory or equivalent*	1	
RTP 300 Pathophysiology for Respiratory Therapists	3	
RTP 301 Interpersonal and Inter-professional Communication for RTs	3	
RTP 302 Introduction to Research and Evidence Based Practice	3	
RTP 303 Chronic Disease Management across the Lifespan	3	
RTP 400 Evidence Based Practice in Resp Therapy	3	Murray State University
RTP 401 Advanced Concepts in Resp Care	3	
RTP 402 Leadership, Management, and Education for Health Professions	4	
RTP 403 Respiratory Care Capstone	3	
RTP 404 Respiratory Therapy Practice Credit	up to 21	
Additional Respiratory Therapy coursework transferred from associate-degree institution	minimum 42	Associate degree institution

*Also fulfills University Studies science requirements.

**Students who have not completed these requirements as part of their associate degree program may complete them at Murray State University.

Murray State University
BS - BACHELOR OF SCIENCE
51.0908-Respiratory Care Therapy/Therapist.
Submission Date: 05/13/2020 15:53

Full Proposal - Basic Info

Institution :	Murray State University
Program Type :	Single Institution
Program Name :	Respiratory Therapy
Degree Level :	Baccalaureate
Degree Designation :	BACHELOR OF SCIENCE
CIP Code (2-Digit) :	51-HEALTH PROFESSIONS AND RELATED PROGRAMS.
CIP Code :	51.0908-Respiratory Care Therapy/Therapist.

Academic Unit (e.g. Department, Division, School) :	School
Name of Academic Unit :	School of Nursing and Health Professions
Name of Program Director :	Dina Byers and Tina Siddon

Intended Date of Implementation :	1/4/2021
Anticipated Date for Granting First Degrees :	12/8/2023
Date of Governing Board Approval :	6/5/2020

Institutional Contact Information

First Name :	Robert
Last Name :	Pervine
Title :	Associate Provost
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Murray State University
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51.0908-Respiratory Care Therapy/Therapist.
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Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

1. Increase the number of Registered Respiratory Therapists (RRTs) who are educationally prepared at the baccalaureate degree level.

2. Create a baccalaureate pathway with Murray State University for graduates of the Madisonville Community College (MCC) Respiratory Care program.

There is a documented need for an increase in Registered Respiratory Therapists who are educationally prepared at the baccalaureate degree level. This objective would meet that need. In its 2015-20 Strategic Plan, the American Association for Respiratory Care (AARC) – the leading national and international professional association for respiratory care – identified the following strategy for advancing the knowledge base and educational preparation of respiratory therapists to ensure the delivery of high quality patient care: “expedite the development of baccalaureate and graduate degree education in respiratory care with the goal of the baccalaureate degree as entry level.” Subsequently in January of 2016, the AARC revised its position statement on Respiratory Therapist Education. The AARC’s new position is that “all programs applying for accreditation be able to award a minimum of a baccalaureate degree upon student completion of programmatic and degree requirements.”

Responding to that recommendation, effective January 1, 2018, the Commission on Accreditation for Respiratory Care (CoARC) revised its accreditation Standard 1.01 in the Accreditation Standards for Entry into Respiratory Care Professional Practice, prescribing that “an educational sponsor must be a postsecondary academic institution accredited by a regional or national accrediting agency that is recognized by the U.S. Department of Education (USDE) and must award graduates of the program a baccalaureate or graduate degree upon completion of the program.”

The revised standards include the following provision: “For associate degree programs that applied for accreditation or were accredited prior to January 1, 2018, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the USDE. These programs may continue to award graduates of the program an associate degree as long as they remain in compliance with the CoARC Standards.” As Kentucky community colleges are not legally empowered to award bachelor’s degrees, Murray State University will partner with Madisonville Community College to develop a baccalaureate degree completion pathway to put the program on more stable accreditation footing with CoARC in the future. Madisonville Community College continues to operate under this provision, but should the program ever lose its accreditation due to insufficient enrollment, persistence, and/or licensure pass rates there would be no accredited respiratory care program serving western Kentucky.

In addition to the accreditation standard revisions, research has shown that professional advancement opportunities, such as the ability for incumbent healthcare workers to earn a bachelor’s degree, represent one of the main factors influencing recruitment and retention of allied health professionals in rural areas (Academy Health, “What are Effective Approaches for Recruiting and Retaining Rural Primary Care Health Professionals,” December 2017). Given the shortage of respiratory therapists in rural western Kentucky, making readily accessible degree completion opportunities available to currently employed respiratory therapists becomes an important strategy in retaining the existing workforce. The cost of recruiting and retaining a new allied health professional is shockingly high, especially in rural areas – according to one study, as high as $10,700 per replacement (Waldman et al., “The Shocking Cost of Turnover in Health Care,” Health Care Management Review, 2004). Building a baccalaureate degree pathway is also a way to address the accreditation issue and ensure the continued availability of Madisonville Community College’s respiratory care program in the western part of the state.

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2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The objectives of the Bachelor of Science in Respiratory Therapy program support the institutional mission and strategic priorities. The objectives of the proposed program are to increase the number of baccalaureate degree prepared Registered Respiratory Therapists and to create a baccalaureate pathway with Murray State University for graduates of the Madisonville Community College (MCC) Respiratory Care program. These objectives are in line with the mission of Murray State University:

“Murray State University places our highest priority on student learning and excellent teaching, blending the range of educational opportunities often experienced at research institutions with the nurturing student-teacher interactions usually found at smaller universities. We offer relevant undergraduate and graduate degree programs with core studies in the liberal arts and sciences, leading to degrees from certificates to advanced practice doctorates that prepare students for success. Through effective and creative teaching, the opportunity to apply knowledge and skills to real-world situations, and academic and student support services, our quality faculty and staff foster student growth in knowledge, critical inquiry, and innovative thinking. As a public comprehensive university dedicated to diversity, global awareness, and intellectual curiosity, we actively engage students, faculty, staff, and the community in collaborative scholarship, creative activity, and research. We invest in our communities through thoughtful public service in our 18-county service region and beyond. Our uniqueness arises from our combination of academic excellence, welcoming atmosphere, and dedication to student success through mentored, real-world learning opportunities in an open-minded and supportive learning environment.”

As previously noted, Madisonville Community College offers the only respiratory therapist program in western Kentucky. Establishing a baccalaureate degree completion program with Murray State University (MSU) makes respiratory care a more attractive allied health career pathway supporting MSU’s mission to place a high priority on student learning and blending the range of educational opportunities. The degree completion option is equally attractive to currently employed respiratory therapists who are looking to advance their careers. It would be the first of its kind in Kentucky and be especially beneficial to the western Kentucky.

3. Explain how the proposed program addresses the state’s postsecondary education strategic agenda.

The program would further the state’s postsecondary education agenda of increasing participation in postsecondary education, particularly among traditionally underserved populations (Objective 3, strategy 3.3) The program will be delivered completely online. This delivery method will provide an option for those students who are employed and unable to attend class in person. In addition, it provides a route to increase the number of baccalaureate prepared health care professionals. This proposed program will provide students with courses in leadership, communication, and evidence-based medicine. The knowledge gained from completion of these courses can improve problem solving, communication, teamwork, and critical thinking among the workforce. This is a strategy mentioned in the Kentucky Council on Postsecondary Education’s 2016-2021 Strategic Agenda.

4. Explain how the proposed program furthers the statewide implementation plan.

Objective 3:
The program would further the state’s postsecondary education agenda of increasing participation in postsecondary education, particularly among traditionally underserved populations (Objective 3, strategy 3.3) The program will be delivered completely online. This delivery method will provide an option for those students who are employed and unable to attend class in person.

Objective 7:
The program will help fill workforce shortages in the state and region by provided credentials to help working respiratory therapists to advance their careers and by preparing new respiratory therapists for their jobs.

This program will help increase the number of KCTCS students who successfully transfer to a four-year institutions. The program is a baccalaureate degree completion program for students who have earned associate degrees in respiratory care/therapy, particularly graduates of Madisonville Community College.

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51.0908-Respiratory Care Therapy/Therapist.
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Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

The program is based on the Standards for Accreditation of Degree Advancement Programs in Respiratory Care, (Council of Accreditation for Respiratory Therapy). The program outcomes have been written based on the current accreditation standards. The program will focus on effective communication, pathophysiology, research and evidence-based practice, leadership, and chronic disease management. The program goals and specific student learning outcomes are listed below:

Program Goal:
To provide graduates of entry into respiratory care professional practice degree programs with additional knowledge, skills, and attributes in leadership, management, education, research, and/or advanced clinical practice that will enable them to meet their current professional goals and prepare them for practice as advanced degree respiratory therapists.

Program Student Learning Outcomes:
Students will
1. Demonstrate the ability to use both oral and written communication effectively.
2. Use information technology and evidence-based medicine to formulate a clinical question, search the literature, and analyze data for application in health care delivery and problem solving.
3. Demonstrate effectively the ability to serve as a leader in an interdisciplinary and collaborative environment to make ethical decisions while promoting patient advocacy and enhancing patient outcomes.
4. Develop innovative approaches to educate patients, their families and other healthcare professionals.
5. Demonstrate advanced knowledge of respiratory care practice and the evidence related to practice.

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

The curriculum begins with two courses. Student will take pathophysiology and a communication course. These courses will serve as foundational courses for the remainder of the curriculum. Students will learn basic pathophysiology concepts that will be applied later in the advanced concepts and chronic disease management courses. The communication course will serve as a to provide the student with interpersonal and inter-professional communication knowledge that will be applied throughout the educational experiences and professional careers. During the second semester, students will take an introduction to research and evidence-based practice course. This course will provide the student with foundational terms and concepts that will be needed for the evidence-based practice in respiratory care course and for completion of their capstone project. Also, during this semester, students will take a chronic disease management course that will provide them with the knowledge and skills used to write measurable goals and evaluate outcomes associated with disease management. The final semester, students will take leadership and capstone course. Students will gain knowledge of various leadership types and be asked to perform common skills of a leader within an organization budget management and data management. Students will explore how to facilitate professional development of diverse populations within an organization. The capstone course will provide an experience for the student to demonstrate mastery of respiratory care practice and document the synthesis of prior course work. This course will lay the groundwork for future scholarship via varied types of scholarly endeavors.

RTP 300: Pathophysiology
This course is designed for the practicing respiratory therapist to expand upon their existing knowledge of pathophysiology. An emphasis will be placed on common acute and chronic cardiopulmonary diseases, as well as, co-morbidities of these diseases.
Prerequisite/corequisite: admission into the respiratory program

RTP 301: Interpersonal and Inter-professional Communication for Respiratory Therapists
This course will focus on interpersonal and interprofessional communication skills of the respiratory therapist. Emphasis will be placed on interaction with the varied populations that are found in health care. Coursework will include both written and oral communication including therapeutic communication and conflict management.

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Prerequisite/corequisite: admission into the respiratory therapy program

RTP 302: Introduction to Research and Evidence Based Practice
This is an introductory course that will focus on the significance of research and its application to vidence-based practice. Students will develop skills in analyzing and critiquing research for clinical application.
Prerequisite/corequisite: none

RTP 303: Chronic Disease Management across the Lifespan
The course offers an introduction to chronic disease management and self-management of chronic cardiopulmonary disease using evidence-based practice. This course will include the pharmacology of medications related to these disease as well as common comorbidities. The student will gain new knowledge in the use of cardiopulmonary diagnostics and monitoring. In addition, the course will introduce the student to writing measurable goals and evaluating outcomes associated with disease management.
Prerequisite(s): admission into the respiratory therapy program

RTP 400: Evidence Based Practice in Respiratory Care
This course will expand on the learner's foundational knowledge of basic research and evidence-based practice. The course will examine and analyze quantitative and qualitative methods. Students will develop a scholarly work including cohesive structure, appropriate citations and referencing. Critical analysis of research studies is emphasized.
Prerequisite/corequisite: RTP 302

RTP 401: Advanced Concepts in Respiratory Care
This course will explore the evolving role of a respiratory therapist as well as changes in therapeutic modalities in respiratory care. An emphasis will be placed on the role of the respiratory therapist in chronic disease management and advances in respiratory therapy for a variety of patients.

RTP 402: Leadership, Management and Education for Health Professions
This course explores leadership and management at both the individual and organizational levels. The course will examine the various methods of leadership and management and their impact on the organization. Students will be asked to perform a critical analysis to determine their leadership styles. Students will gain knowledge of various leadership types and be asked to perform common skills of a leader within an organization budget management and data management. Students will explore how to facilitate professional development of diverse populations within an organization.
Prerequisite(s): none

NUR 403: Respiratory Care Capstone
This capstone course provides an experience for the student to demonstrate mastery of respiratory care practice and document the synthesis of prior course work. This course will lay the groundwork for future scholarship via varied types of scholarly endeavors.
Prerequisite/corequisite: RTP 302 and 400

3. Highlight any distinctive qualities of this proposed program.

Madisonville Community College offers the only respiratory therapist program in western Kentucky. Establishing a baccalaureate degree completion program with Murray State University (MSU) makes respiratory care a more attractive allied health career pathway supporting MSU's mission to place a high priority on student learning and blending the range of educational opportunities. The degree completion option is equally attractive to currently employed respiratory therapists who are looking to advance their careers. By partnering with Madisonville Community College, Murray State University's BSRT program would be eligible to be included under Madisonville Community College's CoARC accreditation. It would be the first of its kind in Kentucky and be especially beneficial to the western Kentucky.

4. Will this program replace any existing program(s) or specializations within an existing program?

NO

5. Include the projected faculty/student in major ratio.

The projected faculty to student ratio will be 1 to 15.

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6. Is there a specialized accrediting agency related to this program?

YES

Please identify the agency.

Commission on Accreditation for Respiratory Care (COARC)

Do you plan to seek accreditation?

YES

Please explain your plans for accreditation.

Murray State University will partner with Madisonville Community College to seek accreditation with the Commission on Accreditation for Respiratory Care (COARC). Madisonville Community College's Respiratory Care Program Associate Degree Program is accredited by COARC and Murray State University's program would be eligible to apply for accreditation under the umbrella of Madisonville Community College.

7. Attach SACS Faculty Roster Form.

SACSCOC FACULTY ROSTER FORMS Resp Therapy.doc

8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

Since the program is 100% online, students are able to access online library resources from MSU's Waterfield Library 24 hours a day, 7 days a week. The library has over 185,000 e-books, subscriptions to over 650 e-journals, and subscriptions to over 128 e-databases. Students also have access to peer-reviewed journal article at no cost via interlibrary loan. A research and instructional librarian is assigned to the School of Nursing and Health Professions that is available via email and phone to assist students. The library also provides an online "Ask a librarian" chat feature to answer questions. Library information and tutorials are included in each Canvas course. Students also have access to the Writing Center located in the Waterfield Library. Students may send their papers electronically to be reviewed and receive feedback and reviews.

MSU Library Collections, Respiratory Care Online Books.pdf

MSU Library Collections, Respiratory Care Online Journals.pdf

B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

Limited physical resources are needed for this program. There will be office space available at the Madisonville Regional Campus. Faculty will have access to video conference classroom space to allow synchronous learning. Additional space is available at the Madisonville Regional Campus to allow for student advising and academic support. There will be limited equipment resources needed for this program. If needed, the program would have access to existing equipment or supplies as needed from the Respiratory Care Program at Madisonville Community College. The instructional equipment will be provided by Murray State University. Some examples include Zoom, Canvas, and Canvas Studio.

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9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

Admission:
Admission criteria includes: GPA of 2.0 or above and licensure a Registered Respiratory Therapist. Student selection will be made based on stated qualifications and space availability. Criteria for admission will include GPA, current credential as a Registered Respiratory Therapist and state licensure as a Registered Respiratory Therapist.

Admission Process:
Apply to Murray State University Admissions Office
o Pay an admission fee
o Submit Official Transcripts from all colleges attended
• Make e-mail contact with Academic Advisory for BSRT
• Completion of required MSU General Education Courses (If needed)
• Apply to BSRT Program
o Submit Application Packet to include Proof of:
o Current RRT Credential from NBRC (Will be Verified)
o State License (Will be Verified)

Retention
Student must maintain a C or above in all courses in the curriculum.

Completion:
Students must complete 25 credit hours in the program with a C or better to be eligible for degree completion.

10. Clearly state the degree completion requirements for the program.

In the complete program, including coursework completed at the community college and at Murray State, students complete 32 hours in general education, including 8 hours in Anatomy and Physiology courses that are part of the required core courses. Students complete 96 hours of required core courses in respiratory therapy and prerequisite Anatomy and Physiology coursework.
At Murray State, students must complete the 25 credit hours of respiratory therapy coursework in the program, which includes a capstone course, with a grade of C or better. In addition, students must demonstrate professional work experience to earn credit in RTP 404 Respiratory Therapy Practice Credit.
See complete curriculum uploaded at question 13 below.

Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	120	96	24	0

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12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

Madisonville Community College (MCC) has formed a consortium with West Kentucky Community and Technical College (WKCTC), Murray State University (MSU), the West Area Health Education Center (West AHEC) and the Purchase Area Health Education Center (Purchase AHEC) to expand the footprint of MCC's associate degree program in respiratory care to meet an identified, demonstrable need for more qualified respiratory therapists among healthcare providers in Kentucky's Jackson Purchase region, comprised of the state's ten western-most counties. While WKCTC would normally meet this need
alone, new accreditation guidelines from the Commission on Accreditation for Respiratory Care (CoARC) require that all newly accredited respiratory care programs lead to a bachelor's degree, which as a community college, WKCTC is not able to offer. MCC's respiratory care accreditation is "grandfathered", making it the best option to immediately meet the need in the Jackson Purchase region.

Finally, MCC will collaborate with Murray State University to develop a baccalaureate degree completion option for associate degree graduates of MCC's program. Upon completion, this program will provide a local option for obtaining a bachelor's degree in respiratory care, the new recommended minimum for entry-level employment in the field, according to the American Association of Respiratory Care (AARC). By partnering with West Kentucky Community and Technical College and Madisonville Community College, this opens up with door to additional community college partnerships for Murray State University.

13. List courses under the appropriate curricular headings.

KPPPS_CourseTemplate_for Respiratory Therapy program.xlsx

Murray State BSRT Curriculum.pdf

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

YES	Distance learning
NO	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
NO	Technology-enhanced instruction
NO	Evening/weekend/early morning classes
NO	Accelerated courses
NO	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

The targeted audience will be Certified and Registered Respiratory Therapist who are educationally prepared at the Associate Degree level. The program will be offered 100% online to meet the needs of the working respiratory therapist.

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

The Bachelor of Science Respiratory Therapy (BSRT) program is needed because there is a shortage of Respiratory Therapists in western Kentucky and because the new recommended minimum degree requirement for entry-level employment is a Bachelor degree. Two health determinants contribute to the higher-than-average need for respiratory therapists in the region. First, a significant portion of the Delta Region counties in Kentucky lie within the Western Coal Field region of the state. Coal mining remains a major employer in this region, and employees in this line of work often develop significant respiratory issues. A recent study of the prevalence of black lung disease by the National Institute for Occupational Safety and Health found that the disease is at a 25-year high. According to a July 20, 2018, article in the Lexington Herald-Leader, “The study found that 16.1 percent of miners with at least 25 years of experience had simple black lung, the initial phase of the disease, and 4.5 percent had progressive massive fibrosis, the most severe form. The fact that the disease can take years to develop also means more cases are likely to show up in coming years.” (“Rate of choking black-lung disease hits 25-year high in Kentucky”, Lexington Herald-Leader, July 20, 2018) Further, most of the counties in Kentucky’s Delta Region have high instances of adult smoking according to the 2018 County Health Rankings published by the University of Wisconsin’s Population Health Institute. Upon completion, this program will provide a local option for obtaining a bachelor’s degree in respiratory care, the new recommended minimum for entry-level employment in the field, according to the American Association of Respiratory Care (AARC).

b. Identify the applicant pool and how they will be reached.

The targeted audience will be Certified and Registered Respiratory Therapist who are educationally prepared at the Associate Degree level. The program will be offered 100% online to meet the needs of the working respiratory therapist. Students will be reached by partnering with the Associate Degree Respiratory Therapy Program Directors in the Commonwealth of Kentucky and beyond.

c. Describe the student recruitment and selection process.

Student who are currently enrolled in Associate Degree Respiratory Therapy programs will be recruited. It is expected that many of the students enrolled in the Madisonville Community College Respiratory Therapy Program will be recruited into the program. The admission criteria include an associate degree GPA of 2.0 and certification and registration as a Registered Respiratory Therapist.

d. Identify the primary feeders for the program.

Respiratory care/therapy associate degree programs in the KCTCS system

e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

It is estimated that there will be 15-20 students enrolled in each cohort. Initial admission will be spring 2021. Then after one year of teaching the program, the program will change to a fall and spring admission cycle based on the associate degree gradation dates of May and December.

f. Project estimated student demand for the first five years of the program.

Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2021-2022	0	15
2022-2023	10	30
2023-2024	15	45
2024-2025	15	45
2025-2026	20	45

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2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

Respiratory Therapist

Average Regional Salary: $49,180
Regional Job Openings: 220

Average State Salary: $49,143
State Job Openings: 1,888
Projected state job growth through 2026: 23%

Average National Salary: $60,280
National Job Openings: 134,000
Projected national job growth through 2026: 21%

3. Academic Disciplinary Needs:

In its 2015-20 Strategic Plan, the American Association for Respiratory Care (AARC) – the leading national and international professional association for respiratory care – identified the following strategy for advancing the knowledge base and educational preparation of respiratory therapists to ensure the delivery of high quality patient care: “expedite the development of baccalaureate and graduate degree education in respiratory care with the goal of the baccalaureate degree as entry level.” Subsequently in January of 2016, the AARC revised its position statement on Respiratory Therapist Education. The AARC’s new position is that “all programs applying for accreditation be able to award a minimum of a baccalaureate degree upon student completion of programmatic and degree requirements.”

Responding to that recommendation, effective January 1, 2018, the Commission on Accreditation for Respiratory Care (CoARC) revised its accreditation Standard 1.01 in the Accreditation Standards for Entry into Respiratory Care Professional Practice, prescribing that “an educational sponsor must be a postsecondary academic institution accredited by a regional or national accrediting agency that is recognized by the U.S. Department of Education (USDE) and must award graduates of the program a baccalaureate or graduate degree upon completion of the program.”
The revised standards include the following provision: “For associate degree programs that applied for accreditation or were accredited prior to January 1, 2018, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the USDE. These programs may continue to award graduates of the program an associate degree as long as they remain in compliance with the CoARC Standards.” As Kentucky community colleges are not legally empowered to award bachelor’s degrees, Murray State University will partner with Madisonville Community College to develop a baccalaureate degree completion pathway to put the program on more stable accreditation footing with CoARC in the future. Madisonville Community College continues to operate under this provision, but should the program ever lose its accreditation due to insufficient enrollment, persistence, and/or licensure pass rates there would be no accredited respiratory care program serving western Kentucky.

a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

YES

Please identify similar programs in other SREB states and in the nation.

There are no bachelor's respiratory therapy programs available to Kentucky residents through the SREB Academic Common Market. However, several schools in the SREB have baccalaureate programs in respiratory care or respiratory therapy.

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b. Our records indicate the following similar programs exist at public institutions in Kentucky.

#Enr = Fall Enrollments , #Grd = Academic Year Graduates

		2019 - 20		2018 - 19		2017 - 18		2016 - 17		2015 - 16		2014 - 15	
Institution	Program	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd	#Enr	#Grd
Northern Kentucky University	*Respiratory Care	54		70	19	38	7	50	14	36		28	

c. Does the proposed program differ from existing programs?

NO

d. Does the proposed program serve a different student population (i.e., students in a different geographic area) from existing programs?

YES

Please explain.

By offering this program at Murray State University, it will allow those students in western Kentucky to complete a baccalaureate degree in respiratory therapy while continuing to work. With the recent changes in accreditation and national practice standards, we anticipate a large number of associate degree prepared respiratory therapists to return to school to complete the baccalaureate degree.

e. Is access to existing programs limited?

YES

Please explain.

Northern Kentucky University is the only degree completion program in respiratory therapy in the state of Kentucky. However, in 2010 the Kentucky Education and Workforce Development Cabinet indicated that there were 2,320 licensed respiratory therapists in Kentucky. Due to the national recommendation by the AARC that entry to practice for respiratory care be moved to a bachelor degree, there will be an increased demand for practicing respiratory therapists to complete a bachelor degree. The program at Murray State University will offer practicing respiratory therapist in the western region of Kentucky the opportunity to complete their degree through a university that has multiple locations throughout the region.

f. Is there excess demand for existing similar programs?

YES

Please explain.

There is a shortage of Respiratory Therapists in western Kentucky. New guidelines from the American Association for Respiratory Care (AARC)-–the leading national and international professional association for respiratory care--recommend students earn a bachelor's degree for entry level jobs as Respiratory Therapists. A bachelor's completion program is needed in the western Kentucky region.

g. Will there be collaboration between the proposed program and existing programs?

NO

Please explain why there is no proposed collaboration with existing programs.

The proposed Murray State program will offer a bachelor's degree completion option to students who have earned their associate's degree from Madisonville Community College (see response to question 4, below).

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

YES

Please provide a brief summary of additional resources that will be needed to implement this program over the next five years.

The additional resources needed to offer this program are many related to faculty. The program will be accredited under Madisonville Community College's accreditation by Commission on Accreditation for Respiratory Care (CoARC). According to CoARC standards, a program director will be needed to manage the program. Murray State University will partner with Madisonville Community College to obtain the expertise of their current Program Director. Murray State University will provide a salary of $30,000 to the program director. The program director will serve ½ time at Murray State University and ½ time Murray State University. The additional full-time faculty member's salary will be $50,000 plus benefits/insurance. It is estimated that the added benefits and insurance will be $13, 857.50. Murray State University has a sound financial base and continues to demonstrate financial stability while providing adequate resources to support the mission of the institution, its education programs, and comprehensive services with an established vision for future resource allocations.

2. Will this program impact existing programs and/or organizational units within your institution?

NO

3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

The program is expected to increase revenue by attracting new students to Murray State. By the second year of the program, we project that revenue from student tuition will cover all program costs and generate additional funds for the university.

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A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Internal					
Allocation :	5467	0	0	0	0
Reallocation :	0	0	0	0	0
Narrative Explanation/Justification :	This is a one-time internal allocation to alleviate the projected revenue shortfall in the first year of the program. Beginning in year two, student tuition is projected to exceed program expenses.				
Student Tuition					
New :	123390	212505	342750	342750	342750
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	The tuition model includes 15 students per cohort. During the first year, we will only admit 15 students in the spring 2021 smester. Students will take 6 hours in the spring 2021, 6 hours in the summer 2021, and 6 hours in the fall. During the spring 2022 semester, we will have 15 students enrolled in the first cohort and will admit a second cohort of 15 students. We will continue to admit a new cohort of 15 students each spring and fall semesters. The tuition used for this analyze is $382/credit hour plus a $75/credit hour fee.				
Total					
New :	$128,857	$212,505	$342,750	$342,750	$342,750
Existing :	$0	$0	$0	$0	$0
Total Funding Sources :	$128,857	$212,505	$342,750	$342,750	$342,750

B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Staff: Executive, administrative, and managerial					
New :	10000	10000	10000	10000	10000
Existing :	0	0	0	0	0

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Other Professional					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Faculty					
New :	93857	107857	107857	107857	107857
Existing :	0	0	0	0	0
Graduate Assistants (if master's or doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Student Employees					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	The above expenses include administrative overhead and faculty salary and benefits. Faculty expenses: Program director - $30,000 allocation per year. Full-time faculty - $50,000 salary and $13,857 benefits per year. Years 2 through 5 - an additional $14,000 is budgeted for salary/benefits increases or other salary needs.				
Equipment and Instructional Materials					
New :	15000	5000	5000	15000	5000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Includes funds for replacing laptops ($10,000 in years 1 and 4), capital equipment and maintenance, and office supplies.				
Library					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	no additional resources needed				
Contractual Services					
New :	2000	2000	2000	2000	2000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	accreditation fees				
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	no additional services needed				
Other Support Services					
New :	0	0	0	0	0

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	no additional services needed				
Faculty Development					
New :	6000	6000	6000	6000	6000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	Memberships, professional development and travel, and consultation				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	not applicable				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	not applicable				
Other					
New :	2000	2000	2000	2000	2000
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	common cost allocations maintenance				
Total					
New :	$128,857	$132,857	$132,857	$142,857	$132,857
Existing :	$0	$0	$0	$0	$0
Total Budget Expenses/Requirements :	$128,857	$132,857	$132,857	$142,857	$132,857
Grand Total					
Total Net Cost :	$0	$79,648	$209,893	$199,893	$209,893

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Full-Proposal - Assess: Program Review and Assessment

1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

According to CoARC, Standard DA3.2, program goal(s) must form the basis for ongoing program planning, implementation, evaluation, and revision. Program goal(s) and outcomes must be reviewed annually by program personal to ensure compatibility with the mission of the sponsor. The program will include a broad based systematic and continuous planning and evaluation that is designed to promotion achievement of program goals and to help to fulfill or advance the mission of the sponsor. The program goals and outcomes will be reviewed annually by the program director, faculty, School of Nursing and Health Professions (SONHP) Dean, and advisory committee. Changes to the program and curriculum will be made based on feedback from the evaluation process. The committee will review feedback from the students, faculty, and advisory board to revise the courses, curriculum, and student learning outcomes.
The student learning outcomes and program outcomes will be assessed in a variety of ways. At the end of the program, students will complete an exit survey. The survey will include questions that evaluate student satisfaction. In addition, students will be able to evaluate resources, advising, and curriculum. Additional surveys will include alumni and employer satisfaction surveys. The employer survey will include questions about job performance which is an indirect measure of employer satisfaction. The program will also evaluate employment and graduation rates.
Student learning outcomes will be assessed in a variety of ways. The first student learning outcome is related to oral and written communication. This SLO will be assessed in all courses. Students will be asked to complete written assignments and a scoring rubric will be used. Additionally, all students are required to complete a capstone project that will demonstrate achievement of program outcomes. Grading rubrics will be used to assess program outcomes related to the student's capstone project.

The second student learning outcome is related to using information technology and evidence-based medicine to formulate a clinical question and search the literature to design a practice change project. This outcome will be assessed in the research courses by using written assignments and a rubric to grade the assignment. Students will be asked to formulate a clinical question, search the literature, and analyze the literature to determine the best evidence to support a change in practice.

The third student learning outcome is related to leadership and collaborative practice. This outcome will be assessed in the leadership course. Students will complete a written assignment and discussion boards throughout the course. A discussion board rubric will be used to assess this outcome.

The fourth student learning outcome is related to patient education. This outcome will be assessed in the leadership and education course. Students will complete an assignment related to patient education.

The final student learning outcome is related to respiratory care practice. This outcome will be assessed at the end of the program. This outcome will be assessed in the capstone course. Student must demonstrate advanced knowledge by completing the practice change project and disseminating the findings at a conference.

b. When will the components be evaluated?

The data will be collected after each course is taught and the student learning outcomes will be assessed at that time. Data analysis and reporting will be completed on an annual basis.

c. When will the data be collected?

Data will be collected each semester and annually.

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d. How will the data be collected?

Data will be collected through the use of the student evaluations which will be completed at the end of each semester. Faculty will then complete a course improvement form and plan to be reported at the Curriculum Committee Meetings.

e. What will be the benchmarks and/or targets to be achieved?

Benchmarks and target goals will be determined by the faculty, alumni, and the advisory committee. Benchmarks will be designed to meet CoARC accreditation standards.

f. What individuals or groups will be responsible for data collection?

Course faculty will be responsible for collected data on each course that they teach. The program director will be responsible for evaluating the program outcomes, student satisfaction surveys, and employer/alumni survey data.

g. How will the data and findings be shared with faculty?

Annually the program director will provide the faculty, curriculum committee, and advisory committee with the data analysis.

h. How will the data be used for making programmatic improvements?

Annually the program director will provide the faculty, curriculum committee, and advisory committee with the data analysis. A plan for improvement and change will then be discussed and voted on.

2. What are the measures of teaching effectiveness?

At the end of each course, the students will complete a student evaluation form. The faculty member will then review the results of the evaluation and complete a course improvement plan. This plan of action will then be discussed with the program director, faculty, and curriculum committee. It is expected that an overall score of 3.0 on the mean student evaluation form be achieved.

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Based on the evaluation of the course by the students and evaluation by the program director and dean, the faculty will then be provided with strategies to improve his/her teaching strategies. Murray State University provides its faculty with a number of teaching resources including the Faculty Development Resource Center.

4. What are the plans to evaluate students' post-graduate success?

With the help of the Office of Career Services, graduating students will complete a survey with questions about current career status and future goals. Graduates will be surveyed again 6 months after graduation. Survey responses will be used to evaluate success rates for career advancement and to gage the number of students working in Kentucky and western Kentucky.

PROPOSED PROGRAM SUMMARY

Instituion: Murray State University
Program Name: Bachelor of General Studies
Degree Designation: BACHELOR OF SCIENCE (BS)
Degree Level : Baccalaureate

Program Description

The Bachelor of General Studies is a baccalaureate degree for traditional students with at least 72 hours of consecutive college credits entering their junior or senior year. This program is for students who resolve to obtain a college degree in a timely manner, though different from their previous declaration of major, and plan to use a college degree to find employment, strengthen future employment opportunities, and reach personal goals.

Students complete a 120-credit hour bachelor's degree that includes 21 hours of core classes in a primary focus area, 30 hours of an individualized focus, and 15 hours of program requirements. These courses help students to attain the core knowledge and skills needed to enter a variety of job fields. The curriculum aims to develop technology, communication, and other foundational skills for graduates to enter, contribute, and thrive in today's workforce. The degree is both practical and rigorous, as 42 upper-level credits are required, as well as core courses that include creating a career plan, building a resume, and experiential learning.
This degree option will benefit students who have accumulated many credits, but for various reasons, may not have the time or resources to begin a new major. Students must be referred by their current advisor and have approval by the BGS coordinator before entering the program.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

The program will not replace any existing programs. The bachelor of general studies program is designed to offer existing students--who, for various reasons, are not succeeding in their chosen majors--an alternative path to earning a baccalaureate degree.

CIP Code: 24.0199
Credit Hours: 120
Institutional Board Approval Date: 10/19/2018
Implementation Date: 8/10/2020

Student Demand

Year 1 - 15
Year 2 - 15
Year 3 - 20
Year 4 - 20

Year 5 - 30

Market Demand

All aspects of the program intend to improve the career readiness and employability of postsecondary education graduates. Knowing degree completion and the time to degree completion are important issues in higher education, objectives of the program include

-provide a practical educational path to degree completion

-provide a high-quality degree option for students who need to alter their educational path after obtaining a substantial amount of college credits.

- prepare undergraduate students for today's ever-changing workforce and promote confidence in their skills to succeed in a variety of professions

- include an individualized plan of study that applies to multiple occupations that may require a bachelor's degree

A college degree still increases employability. According to the Bureau of Labor and Statistics (bls.gov), Kentucky has a 4.3% unemployment rate. The Kentucky Future Skills report on current employment and future demands (https://kystats.ky.gov/Reports) shows that 10,918 graduates are employed within one year of obtaining a bachelor degree compared to 4,383 with an associate's degree and 2,318 with a career or technical education. In the next 5 years, Kentucky has a projected need to fill over 400,000 jobs.

Many job postings require a bachelor's degree but nothing specific. The Bureau of Labor Statistics' data shows those with some college but no degree have fewer opportunities than those completing a bachelor's degree. Those without a degree may obtain jobs beginning as low as 25,000 a year. The occupational outlook for managerial positions that can be obtained with a Bachelor of General Studies degree are very promising with 50,000 or more projected new jobs.

According to payscale.com, job opportunities requiring a Bachelor of General Studies degree include managerial, coordinator, and supervisor positions in a variety of companies from insurance to healthcare to tech and business.

Employment Demand

	Regional	State	National
Type Of Job	**Food Service Manager**		
Avg. Wage	$51,110	$51,160	$54,240
# Jobs (Postings)	190	2620	356400
Expected Growth	8%	8%	11%
Type Of Job	**Meeting, Convention, and Event Planner**		
Avg. Wage	$39,850	$40,000	$49,370
# Jobs (Postings)	30	670	134100
Expected Growth	11%	11%	7%
Type Of Job	**Sales Manager**		
Avg. Wage	$103,060	$121,260	$124,220
# Jobs (Postings)	130	3310	405700
Expected Growth	8%	8%	5%
Type Of Job	**Training and Development Specialist**		
Avg. Wage	$51,162	$54,240	$60,870
# Jobs (Postings)	733	3120	306400
Expected Growth	8%	8%	9%

Indicate source of market demand information

2018 Bureau of Labor Statistics' Occupational Outlook Handbook (Regional, State, and National salary and job openings data. National Growth projections.)
Kentucky Center for Statistics' Kentucky Occupational Outlook to 2026 (State growth projections.)

Academic Demand

Not applicable. This is a program designed for students to enter the workforce immediately upon graduation.

Unneccessary Duplication

Similar Program(s):

Program Id	Inst code	Inst Description	Degree Designation	Program Title	Report year
1414	00196300	Eastern Kentucky University	BIS		2015
2104	00197600	Morehead State University	BUS		2015
2303	00197700	Murray State University	BIS		2015
2971	00198900	University of Kentucky	BGS		2015
4279	00199900	University of Louisville	BA		2015
4866	00200200	Western Kentucky University	BGS	Individualized Studies	2015

Comparison of Objectives/Focus/Curriculum to Similar Programs:
Murray State's proposed BGS program curriculum includes general education requirements, core courses, a primary focus area in one of nine broad disciplines, a secondary focus area, and a thematic focus area. The program is designed to allow students flexibility in using their existing credits and in designing a degree path that meets their personal and career interests. The curriculum and focus areas differ from existing programs at Murray State and at other Kentucky institutions. For example, neither the Eastern Kentucky University program nor the Morehead State University program require a focus area in a given discipline. The main objective of the proposed Murray State program is to provide existing Murray State students with an alternative pathway to degree completion. Students must be referred to the program by their advisor.

Comparison of Student Populations:
Murray State's BGS program is designed for traditional students, who are currently enrolled at Murray State, with at least 72 hours of consecutive college credits entering their junior or senior year at Murray State University. Referred students can end with the program, not begin with it. The majority of coursework in the program is offered in a face-to-face format. In contrast, many other programs--including Murray State's BIS program--are designed for adult learners who are returning to college and who often earn credit for professional experience. Many existing programs are offered 100% through distance learning.

Access to Existing Programs:
We will not recruit or seek students to enter this degree program. Instead, current Murray State students will be directed by their academic advisors and retention counselors to change from the major in which they are not being successful to The Bachelor of General Studies. Currently, these students are being referred to our Bachelor of Integrated Studies (BIS) program because we do not have another option for them. The BIS program is for adult students with previous college credit who are returning to school and for adults who have significant life experience. The BIS was not intended for traditional students who have a significant amount of credit hours yet do not have the GPA required for their major.

Feedback from Other Institutions:

Cost

Projected Revenue over Next Five Years ($) : 916800
Projected Expenses over Next Five Years ($) : 53033

Will Additional faculty be needed? No

Provide a budgetary rationale for creating this new program

This program does not require additional resources. Revenue for the program includes only tuition of existing students who will continue to complete their degrees, rather than stopping out. With the exception of two BGS courses, the curriculum is composed of existing courses, taught by existing faculty. The program coordinator is an existing faculty member and advisor. A quarter of her job will be devoted to serving as the BGS program coordinator. The program is expected to help retain students, thereby increasing tuition revenue, and will draw entirely on existing faculty and facilities.

COVID-19 Question: Murray State – General Studies (B.S)

Please explain how COVID-19 and the various potential impacts it could have on the campuses, particularly this next fall, will affect the implementation of this new program.

Response from Murray State:

COVID-19's potential impact should have minimal effects on the BGS program. Students will be at the junior or senior level upon entering the program and will have experience retrieving and submitting coursework online through the university's learning management system. The two BGS courses can easily be transferred to an online learning format. Discussion Boards and Zoom meetings will be utilized for class participation. Numerous career planning and job outlook sites can be easily accessed online. With over 100 accessible online databases, students can conduct research through the University Library's electronic collections. Zoom meetings will be set up for advising sessions as well.

Experiential learning will take place in both physical and virtual formats. Students will be more involved in meeting online and working online which will be a valuable format for students to learn, given the need for remote and online work in many career fields today.

Course Title (CIP)

Degree Program Core Courses (i.e., Courses required by ALL students in the Major--includes Premajor or Preprofessional courses)

Course Prefix	Course #	Course Title	Course Description	Type of Course: program core (C) or pre-major/ pre-professional (P)	Credit Hours	Existing (E) or New (N) Course
COM	161	Introduction to Public Speaking	Organization and presentation of ideas through participation in frequent speech activities. Students present speeches to inform, solve problems and persuade. Communication needs of the individual students are considered and guidance is given by the instructor.	C	3	E
ENG	105	Critical Reading, Writing, and Inquiry	Instruction and practice in close reading, research, and critical thinking as applied to academic writing, with emphasis on analysis, synthesis, and argument. ENG 101 in combination with ENG 102 will substitute for ENG 105. The combination of ENG 101 and 102 marks off ENG 105. ENG 105 marks off the combination of ENG 101 and 102. Only the last sequence completed (ENG 101/102 or ENG 105) will be calculated in the overall GPA and count towards hours earned.	C	4	E
CIV	201 or 202	World Civilizations I or World Civilizations II	An interdisciplinary survey of the history of world civilizations from (1) the origins of humankind to the 15th century [CIV 201], or (2) the15th century to the present [CIV 202]. This will be a lecture/discussion course following a chronological outline and, within this framework, will focus on traditions, change, and diversity in the development of social hierarchies (e.g., gender or class), power systems, religion, technology, and warfare.	C	3	E
HUM	211	The Western Humanities Tradition	An exploration and analysis of the major ideas and questions in the humanities, as these have been expressed in works from the ancient past to the modern world. A student cannot have credit for both this course and HON 251.	C	3	E
various	various	Science Course with Lab	One science course with lab--selected from the approved list of science courses--to fulfill the University Studies (general education) science requirement.	C	4	E
various	various	Math Course	One math course --selected from the approved list of math courses--to fulfill the University Studies (general education) math requirement.	C	3	E
various	various	Global Awareness, Cultural Diversity, and the World's Artistic Traditions Course	One course--selected from the approved list of Global Awareness, Cultural Diversity, and the World's Artistic Traditions courses--to fulfill the University Studies (general education) requirement.	C	3	E
various	various	Ethics, Social Responsibility, and Civic Engagement Course	One course--selected from the approved list of Ethics, Social Responsibility, and Civic Engagement Course courses--to fulfill the University Studies (general education) requirement.	C	3	E
various	various	Social Science course	One course--selected from the approved list of Social Science courses--to fulfill the University Studies (general education) requirement.	C	3	E
various	various	University Studies Elective	One course--selected from the approved list of University Studies electives--to fulfill the University Studies (general education) requirement.	C	3	E
various	various	Focus Area Courses	21 hours within one college (1-Science, Engineering, and Technology, 2-Agriculture, 3-Health Professions,4-Leadership and Commerce, 5-Human Services, 6-Fine Arts/ Humanities)	C	21	E
various	various	Individualized Area Courses	Any course that meets students' individual workplace, educational, and/or professional objectives; however, a student cannot have more than 25% of the entire bachelor's curriculum as business courses	C	15	E
various	various	Experiential Course	Any 300+ level Service-Learning designated course, Cooperative Education/Internship, or Study Abroad course	C	3	E
various	various	Technology course 1	One course, selected from a list of approved technology courses (see attached list of courses)	C	3	E
various	various	Communications course 2	One course, selected from a list of approved communications courses (see attached list of courses)	C	3	E

various	various	Economics course 3	One course, selected from a list of approved economics courses (see attached list of courses)	C	3	E
BGS	400	Capstone	The course, usually taken the semester prior to graduation, guides the student through the completion of the senior capstone project, which is a required for completion of the Bachelor of General Studies degree. Studies. Prerequisites: admission to B.G.S. program, senior standing, or by consent of instructor.	C	3	N
			Total Credit hours Required for Program Core (i.e., # of hours in degree program core) **Note: number recorded will automatically populate Core Hours in "Summary of Total Program Hours" table**		**83**	**NA**

Core Courses Required for Track(s), Concentration(s), or Speciality(s) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
			Total Credit hours Required for Program Options (Track(s), Concentration(s), or Speciality) (if applicable **Note: number recorded will automatically populate Program Option hours in "Summary of Total Program Hours" table**		**0**	**NA**

GUIDED Elective Courses (i.e., Specified list of Program Electives AND/OR Electives focused on a specific track/concentration/or speciality) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or Specialty (S)	Credit Hours	Existing (E) or New (N) Course
			# of REQUIRED Credit hours in Guided Electives (i.e., electives for a focused or track/concentration/speciality are). If 9 hours is required and there are 15 hours to choose from, then only 9 hour are required) **Note: number recorded will automatically populate Guided Elective hours in "Summary of Total Program Hours" table**			**NA**

FREE Elective Courses (i.e, general program electives, open to the students to choose) (if applicable)

Course Prefix	Course #	Course Title	Course Description	Course Required for Program (P), Track (T), Concentration (C) or	Credit Hours	Existing (E) or New (N) Course
various	various	Unrestricted Electives	In consultation with advisor, student chooses electives to meet the student's academic interests and needs.		37	E
			Total # of Credit Hours in Free Electives (i.e., general program electives) (if applicable)		**37**	**NA**

Summary of Total Program Hours	**Required Core Hours (i.e., # of hours in degree program core)**	**83**	NA
	Required Program Options - Track/Concentration/Specialty Hours (if applicable)	**0**	NA
	Guided Elective Hours (e.g., focused or track/concentration/speciality area specific electives) (if applicable)	**0**	NA
	Free Elective Hours (i.e., general program electives) (if applicable)	**37**	NA
	Total # of credit hours required for Program	**120**	**NA**
Information to be completed by PIE Office			
	# of new courses		NA
	Total # of Courses (includes new and existing)		NA
	Precentage of new courses (more than 25% may require SACS Substantive Change)	#VALUE!	NA

Murray State University
BS - BACHELOR OF SCIENCE
24.0199-Liberal Arts and Sciences, General Studies and Humanities, Other.

Full Proposal - Basic Info

Institution :	Murray State University
Program Type :	Single Institution
Program Name :	Bachelor of General Studies
Degree Level :	Baccalaureate
Degree Designation :	BACHELOR OF SCIENCE
CIP Code (2-Digit) :	24-LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES.
CIP Code :	24.0199-Liberal Arts and Sciences, General Studies and Humanities, Other.

Academic Unit (e.g. Department, Division, School) :	Department
Name of Academic Unit :	Center for Academic Success
Name of Program Director :	Dr. Miranda Wilson

Intended Date of Implementation :	8/3/2020
Anticipated Date for Granting First Degrees :	5/14/2021
Date of Governing Board Approval :	10/19/2018

Institutional Contact Information

First Name :	Robert
Last Name :	Pervine
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Murray State University
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Full Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. List the objectives of the proposed program. These objectives should deal with the specific institutional and societal needs that this program will address.

A college degree increases employability. According to the Bureau of Labor and Statistics (bls.gov), Kentucky has a 4.5% unemployment rate. The Kentucky Future Skills report on current employment and future demands (https://kystats.ky.gov/Reports) shows that 10,918 graduates are employed within one year of obtaining a bachelor degree compared to 4,383 with an associate's degree and 2,318 with a career or technical education. In the next 5 years, Kentucky has a projected need to fill over 400,000 jobs.

Knowing degree completion and the time to degree completion are important issues in higher education, objectives of the program include
-provide a practical educational path to degree completion
-provide a high-quality degree option for students who need to alter their educational path after obtaining a substantial amount of college credits.
- prepare undergraduate students for today's ever-changing workforce and promote confidence in their skills to succeed in a variety of professions
- include an individualized plan of study that applies to multiple occupations that may require a bachelor's degree

2. Explain how the proposed program relates to the institutional mission and academic strategic plan.

The proposed program relates to Murray State's institutional mission to graduate a qualified workforce and further relates to the academic strategic plan to retain and graduate students who will serve as thought-provoking civic, educational and workforce leaders. In addition, every undergraduate student will complete an internship, service learning component, or other experiential learning opportunity.

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3. Explain how the proposed program addresses the state's postsecondary education strategic agenda.

In accordance with the Kentucky Council on Postsecondary Education's 2016-2021 Strategic Agenda to increase degree and certificate completion, the program objectives will adhere to the need of traditional students with college credits but no degree. CPE recognizes that Kentucky will be stronger by ensuring that many more individuals complete a postsecondary degree or credential, and that they graduate with the skills and abilities to be productive, engaged citizens and set goals to raise the percentage of Kentuckians with a high-quality postsecondary degree or certificate to 60 percent by the year 2030. They note "Achieving this goal is critical if the Commonwealth hopes to accelerate job creation, grow the economy, and expand our tax base through the contributions of a more skilled, productive workforce. Additionally, high levels of educational attainment are correlated with better health; more informed, engaged citizens; and the kind of business and cultural endeavors that attract vibrant, creative and entrepreneurial people to the state." (http://cpe.ky.gov/ourwork/strongerbydegrees.html)
All aspects of the program adhere to CPE's Objective 9: Improve the career readiness and employability of postsecondary education graduates. This degree program supports CPE's Strategy 3.3 to improve workforce readiness by including an individualized plan of study that applies to multiple occupations that may require a bachelor's degree. Without such a degree, students' options are limited, reducing their chances of rewarding, lucrative employment and the opportunity to receive a degree.

In the area of success, Objective 6: to increase persistence and timely completion for all students at all levels, the degree will be valuable for traditional students to achieve success in an attainable alternative to their prior major. Adhering to Strategy 6.1: to improve student advising to increase retention and graduation, students will work closely with the general studies advisor to complete individual hours to achieve their new goal and degree.

The program shortens completion time when most students would have to start all over with another major that many do not have the time or resources to complete to support Strategy 6.3: Share, implement, and evaluate high-impact educational practices that accelerate persistence and completion.

Students will be required to take at least one experiential course gaining valuable real-world experience and insight. This can include service-learning or an internship, for example. Experiential opportunities and contact with potential employers will be encouraged in the program in accordance with the following strategies:
Strategy 9.1. Make career development a key strategy by providing "work and learn" opportunities, including experiential or project-based learning, co-ops, internships, externships, and clinical experiences.
Strategy 9.4. Promote regular, meaningful employer involvement in the development and evaluation of postsecondary programs that are relevant to their business/industry.
Strategy 9.5. Identify current and emerging workforce demands, entrepreneurial business opportunities, and stackable credentials that can lead to additional education/training.

According to payscale.com, job opportunities requiring a Bachelor of General Studies degree include managerial, coordinator, and supervisor positions in a variety of companies from insurance to healthcare to tech and business. This program will address Murray State's 2018-2022 Strategic Plan to graduate students who will serve as educational and workforce leaders measured by more degrees awarded each academic year, as well as every undergraduate student completing an internship, service learning, or type of experiential learning component. As stated, the program requires, promotes, and encourages at least a semester of experiential learning.

4. Explain how the proposed program furthers the statewide implementation plan.

This program furthers the implementation of CPE's strategic plan by providing more students the opportunity to complete a high-quality postsecondary degree that provides the skills and abilities to be productive, engaged citizens. Further, the bachelor of general studies degree will improve the career readiness and employability of graduates. The program provides the foundational requirements of a baccalaureate degree, while allowing students to tailor the curriculum to their career interests and strengths. Students will complete at least one experiential learning course to gain real world experience in their field and improve their career readiness.

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Full Proposal - Quality: Program Quality and Student Success

1. List all student learning outcomes of the program.

1. Students will demonstrate the ability to apply their educational foundation and experiences to their career goals.
2. Students will integrate practical skills in communication, technology, and economics.
3. Students will adapt viable academic skills, knowledge, and experiences to confidently enter a variety of job fields.

2. Explain how the curriculum achieves the program-level student learning outcomes by describing the relationship between the overall curriculum or the major curricular components and the program objectives.

The relationship between the overall curriculum and program-level student learning outcomes is to provide a practical educational path to complete a high-quality degree (42 hours must be 300+-level). Students have already completed many general education courses. For the major curricular components and the program objectives, 21 hours must be within one college to obtain foundational knowledge about one subject area (Science, Engineering, Agriculture, Health, Business, Education, or Art, for example). Students then work closely with their original advisor and new advisor to complete individual hours to suit their new goal. Students choose additional classes in communication, technology, and economics. In other words, they get to choose the type of profession(s) they envision this general degree helping with, as well as the courses that can help them gain skills to obtain it. In addition, they will have a capstone project applying how the classes taken will assist them in doing so. Students take a capstone course to complete the project that works closely with Career Services to create a resume, portfolio with reflection, and detailed action plan. Finally, students will take an experiential course for a semester, gaining valuable real-world experience and insight.

3. Highlight any distinctive qualities of this proposed program.

This is a unique degree option for students who value a degree but not in a specific area. It provides access to the program the last two semesters, building upon existing foundational courses currently offered at the university. Unlike many integrated studies or general studies programs, this program is targeted to traditional students.

4. Will this program replace any existing program(s) or specializations within an existing program?

NO

5. Include the projected faculty/student in major ratio.

We project the program to begin with a teacher-to-student ratio of 1:8 with a maximum of 1:15. We project the program to have no more than 30 students at any given time.

6. Is there a specialized accrediting agency related to this program?

NO

7. Attach SACS Faculty Roster Form.

Faculty Roster - Bachelor of General Studies.doc

8. A. Describe the library resources available to support this program. You may attach any documentation provided to SACS.

MSU Libraries have access to vast physical and electronic collections relevant to the General Studies degree program. Waterfield Library and Pogue Library house over 230,000 books and over 12,000 media items. We have access to over 300,000 ebooks, and subscribe or have access to over 120 databases. Databases directly relating to the BGS degree would be Academic Search Complete, JSTOR, Web of Science, and Business Source Complete, among many others. The Libraries use subscription and one-time acquisition methods to provide access to scholarly journals and other formats. When items are not readily available on a specific subject, the Libraries rely on our consortial agreements for borrowing from other libraries, or we make outright purchases of new content. The Libraries has an annual collections budget of $1.2 million.

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B. Describe the physical facilities and instructional equipment available to support this program. Physical facilities and instructional equipment must be adequate to support a high quality program. The proposal must address the availability of classroom, laboratory, and office space as well as any equipment needs.

Classroom, office space, and student work space will be available in the Lowry Center. The facility contains seven classrooms and three computer labs. Office space will be available for advising meetings which are easily accessible on the first floor. A large conference space is also available on the second floor. As this is a multi-disciplinary degree, courses in the focus areas are taken in multiple academic departments and colleges, each of which has additional classroom and laboratory facilities.

9. Clearly state the admission, and retention, and completion standards designed to encourage high quality.

Admitted students must have 72 hours of prior credit with 40 credits taken at Murray State with a 2.0 GPA or higher. Students must apply for the program and be admitted through a recommendation and approval process with their current Murray State advisor and the BGS coordinator.

The program advisor will stay in contact with all students in the program to encourage and support student retention. The individualization and practical application courses in the BGS program should also aid in retention.

Degree requirements for completion include 21 hours of a primary focus, 15 hours of a secondary focus, and 15 hours of a thematic focus. This allows students to stay focused in particular areas of learning. In addition, 42 upper-division credits (courses taken at or above 300-level) must be earned to ensure rigorous coursework.

10. Clearly state the degree completion requirements for the program.

The Bachelor of General Studies degree requires a minimum of 120 credit hours with 15 hours focused on experiential learning and career success, 21 hours of primary focus core courses, and 30 individualized focus. A minimum of 40 credit hours must be taken with Murray State. Additionally, 42 upper-division credits (courses taken at or above the 300-level) must be earned, 15 hours of upper-level classes must come from classes not in University Studies or Unrestricted Electives, and an overall Grade Point Average (GPA) of 2.0 must be maintained to meet regular graduation requirements.

BGS 410 is a capstone experience designed to assist students in the creation and presentation of a culminating project required for completion of the Bachelor of General Studies degree with a C or better. The project includes the integration of artifacts that highlight what students have learned in the program including clear connections to their career plan.

Name	Total number of hours required for degree	Number of hours in degree program core	Number of hours in guided electives	Number of hours in free electives
Program	120	98	0	22

12. Describe how the proposed program will articulate with related programs in the state. It should describe the extent to which student transfer has been explored and coordinated with other institutions. Attach all draft articulation agreements related to this proposed program.

This program is designed for traditional students with at least 72 hours of consecutive college credits entering their junior or senior year at Murray State University. Only current Murray State students, who have been referred by their advisors, will be accepted into the program. The program is not designed for new transfer students

13. List courses under the appropriate curricular headings.

BGS Curriculum.xlsx

14. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

YES Distance learning

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NO	Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web
NO	Technology-enhanced instruction
NO	Evening/weekend/early morning classes
NO	Accelerated courses
NO	Instruction at nontraditional locations, such as employer worksite
NO	Courses with multiple entry, exit, and reentry points
NO	Courses with "rolling" entrance and completion times, based on self-pacing
NO	Modularized courses

Please describe planned alternative methods of program delivery involving greater use of technology, distance education, and/or accelerated degree designs, to increase efficiency, better address student educational and workforce needs, and maximize student success, for both traditional and non-traditional students.

With the individualized choice of several existing core courses, some may be online, but most will be face-to face. BGS 401 and 410 will be designed as face-to-face courses with limited meeting days.

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Full Proposal - Demand: Program Demand/Unnecessary Duplication

1. Student Demand:

a. Provide evidence of student demand at the regional, state and national levels.

We anticipate that there will be approximately 30 students in in the BGS program each year. We will not recruit or seek students to enter this degree program. Instead, current Murray State University students will be directed by their academic advisors and retention counselors to change from the major in which they are not being successful to the BGS. Currently, these students are being referred to our Bachelor of Integrated Studies (BIS) program because we do not have another option for them. However, the BIS program is designed for adult students with previous college credit who are returning to school and for adults who have significant life experience. The BIS was not intended for traditional students who have a significant number of credit hours yet do not have the GPA required for their major. The BGS program will enable students to earn the bachelor's degree in a reasonable period of time instead of having to start over in a completely new field.

The student demand estimates are derived from the number of traditional Murray State students that are currently being referred to the BIS program because their GPA does not meet the requirements of their major.

b. Identify the applicant pool and how they will be reached.

Students with at least 72 hours of college credit and 40 credit hours at MSU who are not successful in their major are referred by current advisors.

c. Describe the student recruitment and selection process.

We will not recruit students. Instead, existing students, who are not succeeding in their chosen majors, will be referred to the program by their advisors.

d. Identify the primary feeders for the program.

A student in any major at Murray State University can be referred to the program.

e. Provide any evidence of a projected net increase in total student enrollments to the campus as a result of the proposed program.

The program is intended to aid in the retention of students who otherwise would have left the university with many credits but no degree.

f. Project estimated student demand for the first five years of the program.

Academic Year	Degrees Conferred	Majors (Headcount) - Fall Semester
2020-2021	3	15
2021-2022	8	15
2022-2023	10	20
2023-2024	12	20
2024-2025	15	30

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2. Employer Demand:

a. Describe the types of jobs available for graduates, average wages for these jobs, and the number of anticipated openings for each type of jobs at the regional, state, and national levels.

Many job postings require a bachelor's degree but nothing specific. The Bureau of Labor Statistics' data shows those with some college but no degree have fewer opportunities than those completing a bachelor's degree Those without a degree may obtain jobs beginning as low as 25,000 a year. The occupational outlook for managerial positions that can be obtained with a Bachelor of General Studies degree are very promising. A few examples of types of jobs are listed below:

Sales Manager:
Regional Average wage: $103,060. Job openings: 130.
Kentucky Average wage: $121,260. Job openings: 3,310.
National Average wage: $124,220. Job openings: 405,700.

Food Service Manager:
Regional Average wage: $51,110. Job openings: 190.
Kentucky Average wage: $51,160. Job openings: 2,620.
National Average wage: $54,240. Job openings: 356,400.

Meeting, Convention, and Event Planner:
Regional Average wage: $39,850. Job openings: 30.
Kentucky Average wage: $40,000. Job openings: 670.
National Average wage: $49,370. Job openings: 134,100.

Training and Development Specialist:
Regional Average wage: $51,162. Job openings: 733.
Kentucky Average wage: $54,240. Job openings: 3,120.
National Average wage: $60,870. Job openings: 306,400.

3. Academic Disciplinary Needs:

Not applicable. The program is not in response to changes in academic disciplinary need. (However, see the response to Student Demand question 1a, above, for information about the institutional need for the program.)

a. If the proposed program is an advanced practice doctorate, explain the new practice or licensure requirements in the profession and/or requirements by specialized accrediting agencies that necessitate a new doctoral program.

(Should not be blank)

4. Similar programs:

a. Are there similar programs in other Southern Regional Education Board (SREB) states and in the nation?

YES

Please identify similar programs in other SREB states and in the nation.

There are no Bachelor of General Studies programs available through the SREB Academic Common Market. However, several institutions in the SREB and the nation have general studies baccalaureate degrees.

b. Our records indicate the following similar programs exist at public institutions in Kentucky.

---- No Programs Exist----

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Full Proposal - Cost: Cost and Funding of the Proposed Program

1. Will this program require additional resources?

NO

2. Will this program impact existing programs and/or organizational units within your institution?

NO

3. Provide adequate documentation to demonstrate sufficient return on investment to the state to offset new costs and justify approval for the proposed program.

This program will not require additional resources or negatively impact existing programs. The program will generate additional tuition revenue by retaining students who are at risk of stopping out.

A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
	0	0	0	0	0
Total Resources Available from Federal Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Total Resources Available from Other Non-State Sources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Internal					
Allocation :	0	0	0	0	0
Reallocation :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Student Tuition					
New :	0	0	0	0	0
Existing :	137520	137520	183360	183360	275040
Narrative Explanation/Justification :	The student tuition estimates reflect in-state undergraduate tuition rates for the following number of students: Year 1, 15 students Year 2, 15 students Year 3, 20 students Year 4, 20 students Year 5, 30 students. We anticipate an average of 30 students will be enrolled in the program each year, after the first few years of the program.				

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Total					
New :	$0	$0	$0	$0	$0
Existing :	$137,520	$137,520	$183,360	$183,360	$275,040
Total Funding Sources :	$137,520	$137,520	$183,360	$183,360	$275,040

B. Breakdown of Budget Expenses/Requirements	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Staff: Executive, administrative, and managerial					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Other Professional					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Faculty					
New :	0	0	0	0	0
Existing :	10607	10607	10607	10607	10607
Graduate Assistants (if master's or doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Student Employees					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	This is a multi-disciplinary program. The vast majority of courses in the program are taught by existing faculty in specific academic disciplines. The program coordinator is an existing faculty member. A portion of her time and salary will be devoted to the BGS program for the capstone course and advising. The cost of her BGS salary, plus benefits, is included in the above expenses.				
Equipment and Instructional Materials					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none needed				
Library					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	no new resources needed				
Contractual Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	not applicable				

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	This program is designed for existing students who have access to existing academic and student support services. No additional services are needed.				
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Faculty Development					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	No funding needed. Program coordinator will have access to Murray State advisor training and faculty development resources. External conferences or other professional development will not be needed.				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	not applicable				
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	not applicable				
Other					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :	none				
Total					
New :	$0	$0	$0	$0	$0
Existing :	$10,607	$10,607	$10,607	$10,607	$10,607
Total Budget Expenses/Requirements :	$10,607	$10,607	$10,607	$10,607	$10,607

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Grand Total						
	Total Net Cost :	$126,913	$126,913	$172,753	$172,753	$264,433

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Full-Proposal - Assess: Program Review and Assessment

1. For each assessment method, please provide direct indicators of achievement of program-level student learning outcomes and frequency of data collection:

a. Which components will be evaluated?

Since the curriculum builds upon existing coursework, many foundational skills will have previously been-- and will continue to be-- introduced in the student's chosen primary and individualized focus. The BGS core course electives will further develop skills that will be mastered in BGS 401 and BGS 410. Student learning outcomes in BGS 401 and BGS 410 will be assessed according to a scoring rubric. A workgroup comprised of various department chairs and representatives from Adult and Regional Education, Health Professions, University Libraries, Business, Fine Arts and Humanities, Agriculture, Education and Human Service, and The Center for Academic Success helped to create student learning goals.

SLO 1: Students will design a course sequence that provides a balance of foundational knowledge and practical workplace skills
Courses: Primary and Individualized Courses and BGS Core Electives

SLO 2: Students will apply service or work experiences to career goals
Course: BGS 401

SLO 3: Students will gain practical skills in communication, technology, and financial literacy to strengthen employment opportunities
Courses: BGS Core Electives

SLO 4: Students will make clear connections to their career plan and senior project
Course: BGS 410

SLO 5: Students will demonstrate sound oral, written, and visual communication abilities in the presentation of their senior project
Course: BGS 410

SLO 6: Students will plan, create, and present a resume, a portfolio, and clear career action plan in an oral presentation and written reflection
Course: BGS 410

b. When will the components be evaluated?

Each student objective will be formatively assessed throughout BGS 401 and BGS 410 and summative assessment takes place upon completion of each course, as well as upon individual program completion. Assessment results will be analyzed every two years.

c. When will the data be collected?

Data will be collected at the end of each semester.

d. How will the data be collected?

Data will be collected by creating a spreadsheet of student grades, additional notes, and graded student work. Any additional information will be kept on file electronically and any print copies will be filed, labelled, and kept locked in the program coordinator's office.

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e. What will be the benchmarks and/or targets to be achieved?

The National Association of Colleges and Employers defines career readiness as “the attainment and demonstration of requisite competencies that broadly prepare college graduates for a successful transition into the workplace.” The program benchmarks are determined by a faculty member in the student’s focus area(s), faculty expert in written, oral, and/or digital communication, and the director of Career Services. A scoring rubric will be used to evaluate the criteria for mastery for each of the SLO’s.

f. What individuals or groups will be responsible for data collection?

The BGS coordinator and BGS faculty will collect assessment data.

g. How will the data and findings be shared with faculty?

The BGS coordinator and faculty will meet with the Center for Academic Success’s Program Director to discuss assessment data and findings. In addition, assessment data and findings will be shared with the Provost of Academic Affairs and the Office of Institutional Effectiveness and Strategic Planning.

h. How will the data be used for making programmatic improvements?

The Center for Academic Success Curriculum Committee and BGS teaching faculty will review program data, student and community partner survey responses, as well as updated trends in U.S Department of Labor statistics and the state’s Workforce Progress and Challenges to change the program as needed to better align the program with industry projections and workforce needs.

2. What are the measures of teaching effectiveness?

The program director conducts an annual faculty review each year. Every semester each class will have a course evaluation as well as an informal survey for students exiting the program and the community partners involved.

3. What efforts to improve teaching effectiveness will be pursued based on these measures?

Faculty are encouraged to attend offerings by the university’s Faculty Development Center, online webinars, weekly faculty meetings, and related teaching conferences. Faculty are asked to report to the program director to show growth in any weak areas of teaching effectiveness.

4. What are the plans to evaluate students’ post-graduate success?

Students will be given three surveys to find out about the overall relevancy of the program experience to job attainment. Survey 1 will be given when the student exits the program, Survey 2 will be six months after graduation, and Survey 3 will be one year after graduation.

TITLE: Agency Update: CARES Act Funding

DESCRIPTION: Staff will provide an update on the Coronavirus Aid, Relief, and Economic Security (CARES) Act funding.

PRESENTER: Lee Nimocks, CPE's Vice President and Chief of Staff

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The Coronavirus Aid, Relief, and Economic Security (CARES) Act, passed by Congress in late March, provides several streams of funding that will impact Kentucky's colleges and universities and the students they serve.

Higher Education Emergency Relief Fund

The CARES Act includes more than $30 billion for education, with at least $13.5 billion for the nation's K-12 schools and more than $14 billion for higher education. Funding for colleges and universities will run through the Higher Education Emergency Relief Fund.

Kentucky colleges and universities that are Title IV eligible will receive a share of $156 million based on formula established by the U.S. Department of Education (USDOE).

Seventy-five percent (75%) of the funding is based on a relative share of full-time equivalent enrollment of Pell students and twenty-five percent (25%) is based on relative share of full-time equivalent enrollment of non-Pell students. The formula excludes online enrollment. Please see *Attachment A* for a breakdown of funding going to each Kentucky campus.

Ninety percent (90%) of the Higher Education Emergency Relief Fund flow to campuses in two equal distributions: Emergency Cash Grants for Students and grants to help campuses respond to costs incurred due to the pandemic. Ten percent (10%) of the Higher Education Emergency Relief Fund will be directed to minority serving campuses and campuses with significant unmet need after receiving funds from other pools.

- **Emergency Cash Grants to Students:** These funds, which comprise fifty percent (50%) of the ninety percent (90%) going to all campuses, have been released by USDOE and campuses are beginning to disperse grants to students.

Campuses are required to provide reports on the use of funds first 30 days of receipt, and every 45 days thereafter.

The campuses are distributing these funds directly to their students to help them respond to emergency needs resulting from the pandemic: food and housing insecurity, healthcare, childcare, course materials and technology. Colleges and universities have been given significant flexibility on how they will distribute the student funding. However, based on conversations with Kentucky's presidents, CPE staff developed broad distribution guidelines that encourage campuses to prioritize student retention and academic progression to ensure students are able to complete the current academic term and be well positioned to continue their studies in the summer and fall of 2020.

Per USDOE, campuses cannot use these funds to reimburse themselves for refunds or financial aid previously provided to students due to the pandemic. Institutions have the option of awarding some aid to all of their students, award aid only to those who have demonstrated need, or a combination. Finally, institutions should prioritize students with the greatest need and factor in student socioeconomic status.

- **Grants Supporting Campuses:** The other fifty percent (50%) of the ninety percent (90%) of funding in the Higher Education Emergency Relief Fund that goes to all campuses is to be used to help colleges and universities respond to costs associated with the pandemic like transitioning students to online programs, needed technology infrastructure, and other COVID-19 costs. We anticipate more information from USDOE next week and the release of those funds soon after.

- **Grants for Minority Serving Campuses and Campuses with Unmet Need:** Ten percent (10%) of the Higher Education Emergency Relief Fund, or approximately $1.4 billion, is reserved for minority serving colleges, tribal colleges, historically black colleges and universities, and campuses with significant unmet need after receiving funds from other pools. The funds for minority serving campuses will be distributed based on relative share of existing Title III, V, and VII appropriations. Campuses with significant unmet need will be determined through the Fund for Improvement of Postsecondary Education (FIPSE) competitive grant process.

Governor's Emergency Education Relief Fund (GEERF)

GEERF provides $3 billion in flexible emergency block grants to governors to help them meet the needs of students, schools, postsecondary institutions, and other education-related organizations. The funding will be distributed to states on a formula basis: 60% based on relative share of population ages 5-24 and 40% based on relative share of population counted under Elementary and Secondary Education Act. **Kentucky will receive about $44 million of the $3 billion total.**

Receipt of GEERF grants requires that states maintain their education funding levels during the next three fiscal years at the average level of the past three fiscal years. However, states can request waivers. Funding will be distributed at governor's discretion to public and private campuses, K-12 institutions and school districts.

While USDOE is providing a great deal of flexibility in the use of funds, there is an expectation that funding will support high need institutions (those most effected by COVID-19, and those needing additional support in providing access to online instruction). States have one year to spend the GEERF grants but are encouraged to so as quickly as possible. The Governor has charged CPE with developing a distribution methodology and managing the $13.8 million he has determined will go to higher education. CPE staff are working closely with the Governor's office and Kentucky campuses to criteria for awarding these grant dollars and in what areas the aid would be most beneficial.

According to USDOE, states and education institutions receiving aid from GEERF or the Higher Education Emergency Relief Fund are to make every effort not to lay off staff. However, this is not a binding mandate.

TITLE: Agency Update: Guidelines for Reopening Campuses for In-Person Instruction

DESCRIPTION: CPE staff will brief the committee on the guiding principles for reopening Kentucky's college and university campuses to in-person instruction.

PRESENTER: Greg Rush, CPE's Senior Fellow

BACKGROUND INFORMATION

As the state embraces being "Healthy at Work", Kentucky's college and university campuses must also be prepared for its employees and students to safely return. In response, CPE staff have developed guiding principles and a planning template for the fall 2020 restart.

Mr. Rush will provide additional details on the on-campus instruction planning process.

Guiding Principles:
Fall 2020 Restart Plan for Kentucky's Colleges and Universities

May 1, 2020

- The health, safety and well-being of our students, faculty, staff and the broader community are paramount to each institution as we restart Fall 2020 within a new normal higher education landscape.

- Adherence to all State, Federal and Centers for Disease Control Guidelines including *Governor Beshear's 10 Rules to Re-opening* and *President Trump's Guidelines for Opening Up America Again.*

- Colleges and Universities may begin the phase-in process of fully opening each institution by June 1, 2020, in order to ensure scheduled opening dates as established by each college and university.

- During the Fall of 2020, we will use a combination of in-person, hybrid and online instruction. All other university operations will adhere to State, Federal and Centers for Disease Control Guidelines.

- Compliance with all social-distancing and other health and safety protocols as directed by State and Federal Governments and Centers for Disease Control.

- As many of our most vulnerable students have been disproportionately affected by the COVID-19 pandemic, recovery measures will be implemented to ensure that these students are supported.

- Each college and university will develop its own detailed restart plan and will comply with these over-arching guiding principles.

Planning Checklist for Fully Opening Campuses – Postsecondary Institutions
Council on Postsecondary Education
Version – May 7, 2020

The following is provided as a general structure for institutional plans to fully open on June 1, 2020. Plans should be submitted to the Council on Postsecondary Education by May 25, 2020. As this process is fluid, plan updates may be submitted as circumstances change. Institutions planning to fully reopen after June 1, 2020 should submit their plan seven days before their reopening date.

This form is a checklist of items that should be addressed in each plan. Please indicate on the form where in the institution's plan the item is addressed (page number, section, etc.) Plans and other supporting information should be attached to the checklist.

As the Governor announced on May 6, 2020 that he anticipates that the state will enter Phase 2 around June 1, 2020, initial plans submitted by institutions should address both phase 1 and phase 2 items. If planning is not complete for phase 3 by that time, indicate "TBD" in the appropriate box and submit a plan update when complete but no later than 10 days before the state enters that phase.

If a particular item is not relevant to your institution, enter "N/A" in the appropriate box.

Each institution's plan will be unique but the categories and items below provide a general outline of the items to be addressed. We cannot predict at this point, which phase (as defined by the CDC and White House) the Commonwealth will be in on any given date; therefore, plans should address each possible phase. A resurgence in COVID-19 cases could push the Commonwealth back one or more phases or could result in a return to the "Healthy at Home" status as defined by the Governor at any time. Plans should address this possibility.

Information about each phase, as well as the criteria to enter and exit each phase can be found at:

https://www.whitehouse.gov/openingamerica/

Information on Healthy at Work guidelines can be found at:

https://govstatus.egov.com/ky-healthy-at-work

Additional information from the Centers for Disease Control specifically for institutions of higher education can be found at:

https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html

Institution Name:	
President:	
Date of Submission:	

I.	Facilities	Phase 1	Phase 2	Phase 3
1	Obtaining and distributing personal protective equipment to staff, students, contractors, visitors, etc.			
2	Disinfecting and cleaning of all facilities.			
3	Social distancing reminders (signage, one-way walkways, areas closed, floor markings, etc.			
4	Physical barriers at all areas which require interaction with public			
5	Limiting occupancy of rooms and spaces to ensure appropriate distancing (removing chairs, signage, barriers within rooms, etc.)			
6	Other			

II.	Screening and Contact Tracing	Phase 1	Phase 2	Phase 3
1	Screening students, staff, and visitors (temperature checks, testing, etc.)			
2	14 day quarantine of any staff or students returning from out of state (if required in phase)			
3	Quarantining of students showing symptoms			
4	Ensuring staff with symptoms are not on campus			
5	Working with local health departments or other partners to trace contacts of any individuals testing positive			
6	Quarantining all individuals testing positive and any of their direct contacts for 14 days			
7	Other			

III.	Staff	Phase 1	Phase 2	Phase 3
1	Determining which employees are required/allowed to return to campus			
2	Establishing staggered work schedules, changes in meeting formats or other modifications to ensure proper social distancing			
3	Accommodations for employees that are members of vulnerable populations			
4	Minimizing travel and isolation following travel (if required by phase)			
5	Closing of common areas to minimize contact			
6	Ensuring appropriate distancing and use of PPE in research and laboratory environments			
7	Other			

IV.	Academic Services	Phase 1	Phase 2	Phase 3
1	Ensuring appropriate distancing during on-site instruction			
2	Evaluating alternative learning environments for each course, lab, etc., if the Governor or CDC require a second or subsequent shutdown			
3	Faculty professional development for alternative learning environments			
4	Accommodations for students with illness due to COVID-19			
5	Other			

V.	Student Support	Phase 1	Phase 2	Phase 3
1	Minimizing contact between students and staff for administrative services (bursar, financial aid, etc.)			
2	Operations of Student Health Services			
3	Communication of COVID-19 restrictions, protocols, requirements.			
4	Safe delivery of mental health, advising, tutoring, and other student focused services			
5	Other			

VI.	Athletics	Phase 1	Phase 2	Phase 3
1	Communication of NCAA and Conference decisions to local and state authorities relating to events with spectators			
2	Bringing student athletes to campus and providing appropriate distancing and support (if needed by phase)			
3	Addressing when spectators will be allowed at athletic events			
4	Protocol for temperature screening, testing and contact tracing of athletes, coaches, officials, etc.			
5	Concession operations at athletic events (if needed by phase)			
6	Other			

VII.	Residence Halls	Phase 1	Phase 2	Phase 3
1	Reduced occupancy in residence halls (if needed by phase)			
2	Cleaning and disinfecting residence halls			
3	Role of RAs in screening students for illness, contact tracing, enforcing quarantine, etc.			
4	Meal and supply delivery (if needed by phase)			
5	Closing common areas, limit gatherings, curfew, etc.			
6	Other			

VIII.	Dining	Phase 1	Phase 2	Phase 3
1	Plan for "grab and go" dining or delivery (if required by phase)			
2	Reducing occupancy of dining areas			
3	Installing physical barriers between customers and staff			
4	Cleaning and disinfecting dining areas			
5	Other			

IX.	Events	Phase 1	Phase 2	Phase 3
1	Communication with local and state authorities regarding any public events			
2	Limiting size of public gatherings (as required by phase)			
3	Install signage and physical distance markers in any common areas in use			
4	Moving gatherings to a virtual environment (if required by phase)			
5	Other			

TITLE: Agency Updates: Academic & Student Success Initiatives

DESCRIPTION: CPE staff will brief the Committee on the recent work of the Academic and Student Success unit.

PRESENTERS: Melissa Bell, Ph.D., CPE's Vice President for Academic Affairs and Student Success

College Readiness

Per 13 KAR 2:020, CPE determines college readiness indicators. Each year CPE staff work with institutional representatives to determine which assessments should be accepted as statewide college readiness indicators and which benchmark scores should determine readiness. Circumstances surrounding the COVID-19 pandemic have made the administration of the standardized tests listed on the College Readiness Indicators more difficult, and even impossible, in some instances. Because of this unusual situation, institutions have been permitted to implement their own methodologies to determination readiness and placement during the 2020-21 academic year. CPE staff will work with institutional representatives to determine college readiness indicators for the 2021-22 academic year, and those recommendations will be brought to the ASI Committee in the near future.

Online Portal

CPE is developing a new online portal system that currently consists of four major components – degree plans, a tool that will help students optimize these degree plans, transfer course equivalencies, and cross-institutional degree plans for students who start at one institution and finish at another. Focus groups will begin meeting in the next few weeks to provide feedback. Each group will consist of chief academic officers, advisors, students, and members of other key constituent groups. Staff anticipate providing a demonstration of the system at the next ASI meeting.

Conversations with Campus Personnel

CPE is hosting a series of statewide, virtual information-sharing sessions for groups of campus professionals. In these unprecedented times, institutions and their staff are making daily adjustments and practicing an incredible amount of flexibility. As things

continue to change and evolve in relation to COVID-19, we feel that it is important to connect professionals to investigate solutions together. Session topics include academic advising, career services, military student services, mental health services, admissions and recruitment, residence life, and student activities.

Online Learning

The rapid transition to remote learning was challenging for faculty, staff and students. CPE staff convened a virtual meeting of teaching and learning center directors and distance learning coordinators to talk about their experiences during the past semester. From this conversation, it became clear that a statewide repository of guidelines on captioning, tutoring and professional development would be helpful for public institutions, and CPE will take the lead on creating this repository. This group will convene again in mid-June to discuss lessons learned from summer courses and best practices/strategies for Fall 2020.

Kentucky Virtual Library (KYVL)

The Kentucky Virtual Library (KYVL), a unit within CPE, serves as the state's hub for online research resources. It is a consortium of nearly 300 Kentucky libraries and institutions that makes those resources available at a fraction of the retail cost. Membership in the KYVL is available at an annual fee. When COVID-19 began to require school closures, CPE staff quickly made adjustments in mid-March to make the databases available to non-member Kentucky school districts and public libraries through the end of the school year. Private schools were also permitted to request access. Access for non-member schools and libraries will remain available through June 30, 2020.

Program Approval Policy

CPE staff are working with institutional representatives to streamline the current program approval process and align it more closely with the requirements of the SACSCOC substantive change process. Staff will bring proposed policy changes for consideration to the next ASI Committee meeting.

TITLE: Agency Updates: Research Agenda

DESCRIPTION: CPE staff will present a preview of what to expect from CPE's Data, Research and Advanced Analytics unit for the 2020-21 academic year.

PRESENTERS: David M Mahan, Ph.D., CPE's Associate Vice President, Data, Research and Advanced Analytics

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CPE RESEARCH AGENDA – HIGHLIGHTS FOR 2020-21

January/February 2020

- Return on Investment (ROI)[2]
- Presidents' presentation of campus scorecards to CPE[4]

March/April 2020

- EMSI engineers research[1]
- Progress Report[2] and campus scorecard dashboard[4]

May/June 2020

- EMSI healthcare[1]
- KY Academic Program Outcomes Report (KAPOR) with KYSTATS[*4*]
- Dual enrollment research, 4-year public universities[1,3,4]
- In-state and out-of-state college going rate with KYSTATS, high school feedback report[3,4]
- Coleridge research conclusions (bordering states' share of data) with KYSTATS[1]

July/August 2020

- EMSI sector analysis TBD[1]
- College readiness measures evaluation[1]
- KY 60x30 rebrand and establishment of additional targets[2,*4*]
- Work group for 2021-25 Strategic Agenda (workforce metrics, outcome measures, experiential learning)[2,4]
- Dual enrollment research 2.0, KY public universities and KCTCS[1]

Sept/Oct 2020

- CPE and UK Martin School, assessment of sub-associate credentials [1,2,3]
- Student success modeling using micro-grants, UK, WKU unmet need strategy[1]
- Coleridge research conclusions (bordering states share of data) with KYSTATS[1]

November/December 2020

- ROI 2.0 with KYSTATS (by campus, geography, demographic)[2]
- Credential production, 60x30 update[2]
- CPE fall enrollment, graduation rates and out-of-state completions[2,4]
- CPE and UK Martin School, assessment of sub-associate credentials[1,2,3]

January/February 2021

- Research KY online delivery offerings comparing KY to other states[2,4]
- Presidents' presentation of campus scorecards to CPE[4]
- CPE and UK Martin School, assessment of sub-associate credentials[1,2,3]

March/April 2021

- Progress report, final assessment of strategic agenda 2016-21[2,4]
- National Student Clearinghouse (NSC) KY Completion Rates[3]
- UK Martin School, assessment of sub-associate credentials[1,2,3]

May/June/July/August 2021

- 2021-25 strategic agenda, update campus scorecards with new measures[2,4]
- CPE and UK Martin School, assessment of sub-associate credentials[1,2,3]
- Evaluation of KY state aid (KEES, CAP, KTG) with KYSTATS, KHEAA[1]
- Evaluation of co-requisite model implementation[1]

Notes

- *Research manuscript[1]*
- *White paper[2]*
- *Research brief[3]*
- *Data update/interactive dashboard CPE Data Center[4]*