



Tennessee Higher Education Commission

Post-Approval Monitoring Report

November 2023

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INTRODUCTION

Post-approval monitoring is stipulated in academic polices A1.0 – New Academic Programs: Approval Process and A1.6 – Expedited Academic Programs: Approval Process. The annual review evaluates fidelity of recently approved academic program implementation and monitors progress towards meeting the implementation goals articulated in the program proposal during the approval process.

Post-approval monitoring extends for three years after approval for associate degrees and certificate programs; five years for bachelor's and master's degrees; and seven years for doctoral programs. The post-approval monitoring process can be extended when additional time is needed for approved programs to demonstrate success in meeting program benchmarks. After a program has completed post-approval monitoring, it is evaluated via Quality Assurance Funding (QAF).

Traditionally, institutions submit one of four types of reports while programs are in post-approval monitoring: implementation, standard, productivity, or summative. Implementation reports cover action between commission approval and the enrollment of the first students, standard reports describe progress from implementation to the final year of the PAM cycle, summative reports describe the final year of reporting when programs anticipate leaving post-approval monitoring, and productivity reports provide corrective plans for those programs which fail to meet enrollment or graduation projections. These reports have focused primarily on the attainment of the enrollment and graduation metrics established during the new program approval process and approved by the commission.

As part of a reconceptualization of post-approval monitoring, and in consultation with a taskforce comprised of institutional stakeholders, this year's post-approval monitoring report only required submissions for programs in the final year of monitoring (summative report) and those in productivity monitoring. Furthermore, institutions were given an option to submit a traditional report based on enrollment and graduation metrics or to pilot the new metrics proposed by the task force. The pilot report and associated metrics contain both qualitative and quantitative measures to present a more holistic evaluation of the viability of the academic programs. The new metrics are grouped into four key areas: programmatic alignment; student success and outcomes; program efficiency; and workforce alignment and demand. For each area, institutions were able to select between several measures, each identified by the taskforce as valuable evaluation metrics.

Table 1 lists the academic programs that submitted post-approval monitoring reports for the 2022-23 reporting cycle along with the type of report submitted. Reports are organized by pilot reports by institution followed by traditional reports by institution. Please note, not all institutions had programs that required reporting for this reporting cycle.

Table 1 - 2022-23 Post-Approval Monitoring Reports

Institution	Academic Program	Implementation Date	Monitoring Year	2023 Report	Version
PILOT REPORTS					
Austin Peay State University	Aviation Science, BS	2018	5	Summative	Pilot
Middle Tennessee State University	Fermentation Science, BS	2017	6	Productivity	Pilot
Chattanooga State Community College	Nuclear Medicine Technology, AAS	2017	6	Summative	Pilot
Chattanooga State Community College	Paramedic, AAS	2016	7	Productivity	Pilot
Columbia State Community College	Anesthesia Technology, AAS	2017	6	Summative	Pilot
Dyersburg State Community College	Health Sciences, AAS	2017	6	Summative	Pilot
Motlow State Community College	Entrepreneurship, AAS	2020	3	Summative	Traditional
Motlow State Community College	Fine Arts, AFA	2017	6	Summative	Pilot
Nashville State Community College	Fine Arts, AFA	2012	11	Productivity	Pilot
Nashville State Community College	Hospitality Management, AAS	2017	6	Summative	Pilot
Nashville State Community College	Paralegal Studies, Certificate	2020	3	Summative	Pilot
Nashville State Community College	Retail Management, Certificate	2017	6	Summative	Pilot
Roane State Community College	Financial Services, AAS	2014	9	Summative	Pilot
Roane State Community College	Medical Informatics, AAS	2015	8	Productivity	Pilot
Southwest Tennessee Community College	Health Sciences, AAS	2015	8	Productivity	Pilot
Southwest Tennessee Community College	Fine Arts, AFA	2019	4	Productivity	Pilot
Southwest Tennessee Community College	Funeral Services Education, AAS	2019	4	Productivity	Pilot

Institution	Academic Program	Implementation Date	Monitoring Year	2023 Report	Version
TRADITIONAL REPORTS					
Austin Peay State University	Engineering Physics, BS	2017	6	Productivity	Traditional
East Tennessee State University	Rehabilitative Health Sciences, BS	2018	5	Summative	Traditional
Joint Program – Tennessee Technological University and East Tennessee State University	Engineering, BSE	2016	7	Productivity	Traditional
Middle Tennessee State University	Africana Studies, BA/ BS	2017	6	Productivity	Traditional
Middle Tennessee State University	Dance, BS	2017	6	Productivity	Traditional
Middle Tennessee State University	Religious Studies, BA/BS	2017	6	Productivity	Traditional
Tennessee Technological University	Professional Science Masters, PSM	2013	10	Productivity	Traditional
University of Memphis	Commercial Aviation, BS	2018	5	Summative	Traditional
University of Tennessee, Chattanooga	Chronic Disease and Prevention, MPH	2018	5	Summative	Traditional
University of Tennessee, Chattanooga	Mechatronics Engineering, BAS	2018	5	Summative	Traditional
University of Tennessee, Knoxville	Entomology, Plant Pathology, and Nematology, PhD	2015	8	Productivity	Traditional
Cleveland State Community College	Fine Arts, AFA*	2013	10	Productivity	Traditional
Cleveland State Community College	Law Enforcement, AAS	2017	6	Summative	Traditional
Cleveland State Community College	Medical Informatics, AAS*	2014	9	Summative	Traditional
Cleveland State Community College	Fine Arts, AFA*	2013	10	Productivity	Traditional
Cleveland State Community College	Paramedic, AAS	2015	8	Productivity	Traditional
Columbia State Community College	Civil and Construction Engineering Technology, AAS*	2020	3	Summative	Traditional
Columbia State Community College	Fire Science, AAS*	2019	4	Productivity	Traditional
Jackson State Community College	Respiratory Care, AAS	2018	5	Productivity	Traditional

Institution	Academic Program	Implementation Date	Monitoring Year	2023 Report	Version
Motlow State Community College	Medical Laboratory Technology, AAS	2017	6	Summative	Traditional
Motlow State Community College	Paramedic, AAS	2014	9	Summative	Traditional
Pellissippi State Community College	Architectural Design Technology, AAS	2020	3	Summative	Traditional
Pellissippi State Community College	Water Quality Technology, AAS	2019	4	Productivity	Traditional

**Planned for termination or phase-out*

AUSTIN PEAY STATE UNIVERSITY

Aviation Science, Bachelor of Science (BS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		x
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>The Tennessee Higher Education Commission has approved and supported the Aviation Science degree program, concentration rotor-wing at Austin Peay State University because of its support in furthering the state master plan to support the state's Drive to 55 initiative. This degree program is unique and serves the region around Clarksville, and the state of TN very well due to the high interest in this degree plan and careers tied to this degree program. This program serves a diverse group of non-traditional, traditional, and military-affiliated students, focused on degree attainment, as well as FAA certification of five unique pilot certifications which are very closely tied to career readiness. This degree program also supports Austin Peay State University's mission of being, " ... a mission-driven, community-minded institution that provides transformational experiences through innovative, creative and scholarly activities. We welcome and inspire an inclusive community of learners to make a positive impact regionally and globally." Students that graduate from this degree program are provided a transformative experience by being the state's only degree program in aviation with a concentration specific to rotor wing. These students will be ready for careers in a field where there is a great deal of pilot shortage both regionally, and nationally. In fact, Boeing, one of the largest manufacturers in the industry has estimated that by 2038 there will be a shortage of 61,000 helicopter pilots worldwide, including expected retirements, with an annual growth rate of 6.24% in the period between 2022 – 2029. Austin Peay has fully embraced this program as one of the most unique degree programs to address current and future critical need of pilots. The University and the state have shown its support through purchasing helicopters to increase the fleet as the program has increased its student enrollment and the state department of transportation has granted support through a grant to purchase our advanced aviation training device.</p>				

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x
Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

We have had ten graduates from this program since December 2022. Seven graduated in the first cohort in December 2022 and then three additional graduates in August 2023. All but one are currently employed, and the last graduate in August that is not currently employed is in the process of waiting on a contract. They have had many different jobs offered, some include working as flight instructors at APSU, but the majority include pilot careers in tourism industry in LA and in South Dakota and others are instructing in other flight institutions. Since the degree program itself includes independent certification by the FAA at each of the five levels of certification, a student is assessed by an external well qualified FAA pilot at multiple points throughout their degree progression. At every level of the five certifications there is an FAA knowledge test and an FAA flight test. Students must pass these before progression to the next level of the degree program. Assessment is often and at multipole levels by a highly qualified external body, as required by the FAA. This program and the facility also requires annual on-site inspections by the FAA to be certain all of our practices and flight facility are up to code and operating under the approved FAA standards. Our NSSE reporting does not permit us to single out one degree program for our aviation students response, however, according to our 2021 NSSE surveys, the percentage of seniors that rated their overall experience as "excellent" or "good" was 81%. The percentage of seniors that would "definitely" or "probably" attend APSU again was also 81%.

Program Efficiency				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		x
Retention rates		quantitative		
Graduates		quantitative		x
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The enrollment for aviation has increased substantially since its first students joined the program in 2018. In 2018 there were three enrolled, the next year was 14, then 30, then 37 and for 2022 there were 53 enrolled. As previously mentioned in December 2022 we graduated our first cohort of 7 students followed by three more in August of 2023.

Workforce Alignment and Demand				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		x
Community outreach	partnerships, etc.	both		

Employment rate upon graduation		quantitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>As mentioned previously 9 of the ten students (90%), have gainful employment that have graduated from the Aviation Science program and one of our most recent graduates is currently waiting on a contract. The demand in the region as well as nationally can best be summarized by a recent study done by Boeing. Boeing, one of the largest manufacturers in the industry has estimated that by 2038 there will be a shortage of 61,000 helicopter pilots worldwide, including expected retirements, with an annual growth rate of 6.24% in the period between 2022 – 2029. Since this degree program so closely ties all of its assessments and progression to the FAA requirements, which are also what is required for gainful employment in this career, there is a clear indication of career readiness upon completion of this degree program.</p>				
Are there other considerations not outlined above?				
<p>This program is not meant to be a high enrolled program and will only function as a cohort program. Retention and matriculation may not be as strong as some programs due to the additional cost and requirements by the FAA, however, there is a very strong retention rate after the sophomore year to degree completion. In addition, during Covid, due to the many illnesses and precautions that were needed to be taken, some flight labs were slightly delayed and there are still some students that are matriculating through the program but not with their original cohort. The goal for this program is to have a cohort size of 25 starting as freshmen each year. This limited size is necessary due to the constraints of available flight instructors, helicopters, and other considerations such as weather.</p>				

MIDDLE TENNESSEE STATE UNIVERSITY

Fermentation Science, Bachelor of Science (BS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		x
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>Alignment with the State master plan: The Tennessee Higher Education Commission's (THEC) 2020 master plan "Enabling the Competitive Edge: Tennessee Higher Education in the New Economy, 2015-2025" includes in its beginning statement: "This document is about the role higher education will play in the future of Tennessee's economy. As emerging technologies have created a pace of change faster than at any time in history, navigating this challenge requires the full commitment of our colleges and universities." The B.S. in Fermentation Science is fully committed to helping new students and working adults increase their educational level and quality of life while simultaneously building the state's economic prosperity by providing a better educated and trained work force. This plan was published at the same time that Tennessee was launching the Drive to 55 with a goal of 55% of Tennesseans would hold a postsecondary degree by 2025. The B.S. in Fermentation Science is contributing to all three areas of the THEC Master Plan that focus on critical constituencies served by public higher education in Tennessee: Student Success: All Fermentation Science majors are assigned an academic advisor as well as a faculty mentor and are encouraged to meet with their advisors and mentors regularly to help the students be successful academically and prepared for their career choiced. The Fermentation Science degree program includes several chemistry, biology, and applied science courses for completion of the degree program. The MTSU College of Basic & Applied Sciences offers free tutoring to students enrolled in most of the science courses that are completed by the Fermentation Science majors. Since the beginning of the program, MTSU has graduated a total of 27 students and retention rates are currently above 75%. Fermentation Science majors are required to complete an internship course and research course for credit as part of the program degree requirements. These requirements have helped students gain practical experience in the workforce and also have exposure to research in the discipline. Students have presented research posters on</p>				

campus during Scholar's Week and at the Tennessee Academy of Science. In addition, MTSU Fermentation Science graduates are successfully hired upon graduation into discipline specific jobs – often with multiple job offers.

Family Prosperity: The B.S. in Fermentation Science is fostering the growth of existing businesses and attracting new high paying industries to the state. Graduates of this program are being hired into companies such as Lallemand, Inc. that had previously not recruited from MTSU and faculty members are being consulted on a regular basis to advise new companies (example: House of Mustaine, LLC) moving into Tennessee. The B.S. in Fermentation Science addresses both the current, pressing needs of local industry and creates new opportunities for industry. Recently, the program director completed a 2-year research project funded by an international company with physical locations in Memphis and Clarksville. The project was directed to MTSU solely based on the existence of the Fermentation Science degree program. The Fermentation Science program requires extensive hands-on training as well as a significant internship with a commercial operation. This is accomplished by utilizing local, national, and international industrial facilities, at no cost to Tennessee.

The Future Workforce: MTSU's School of Agriculture has a long-standing relationship with Tennessee's Department of Agriculture as well as the state's food industry, particularly the food processing industry. Courses in Fermentation Science are taught in partnership with local industry, and hands-on training sessions at industry sites as well as internships with industry are scheduled to accommodate working professionals as well as traditional students. In addition, MTSU has established articulation agreements with Motlow State and Columbia State Community Colleges that allows students graduating from these community colleges with an Associate's of Applied Science degree to attend MTSU and pursue a B.S. in Fermentation Science degree without additional prerequisites for admission to junior and senior level courses. Finally, to date, two graduates have been hired by the Tennessee Department of Agriculture to work at the state-level.

Alignment with the institutional mission and strategic plan:

The MTSU mission states, "...the university is committed to preparing students to thrive in their chosen professions and a changing global society." The B.S. in Fermentation Science is a direct reflection of that "changing global society," especially as exhibited in the United States and Tennessee, specifically. Fermented foods have been and continue to be staple commodities in almost every society, but understanding of the nutritional and long-term health value of fermented foods is now being translated into increasing demand for custom and specialized fermented foods. Fermentation is now understood to be an ideal vehicle for the production of highly nutritious and long-term stable foods with unique flavors, textures and aromas. Tennessee is home to a large and diverse community of food processors; the most significant growth over the last 10–15 years has been in the fermented foods segment of this vitally important industry. Fermented food manufacturers of every type need college graduates with specialized training who can enter the workforce ready to sustain and advance the industry.

Further, this proposed program achieves many of the purposes listed as part of the mission of the College of Basic and Applied Sciences (CBAS) and the School of Agriculture (AGRI):

CBAS Mission: Provide "hands-on" experience with state-of-the-art materials and equipment.

The School of Agriculture incorporates hands-on teaching and learning opportunities into almost every course offered. Industry advisors, in the form of an advisory board, have repeatedly reiterated the value of the hands-on education practices employed by the MTSU School of Agriculture. Students have enjoyed the opportunity to learn with, practice on and apply their skills with the latest technologies and perhaps most importantly, to participate in research being conducted by the faculty.

AGRI Mission:

The School of Agriculture mission statement: "Teaching, research, and public service are fundamental to the mission of the School of Agriculture (AGRI). We provide a student-centered, experiential education to all students in AGRI through integration of academic rigor, research, laboratory, and real-world experiences. We use our collective experience, knowledge, and resources to address challenges and serve agriculture industries locally, regionally, nationally, and internationally".

The Fermentation Science program includes all components listed in the AGRI mission statement. The undergraduate program is rigorous (8 biology and chemistry courses required; 7 fermentation science specialized courses required). Students complete a research project and an internship as part of their degree requirements. Students use the fermentation science teaching and research labs to gain real-world experience working with modern equipment. The fermentation science program has worked with local industries as well as industries in other states and countries for student internships, research projects, and full-time jobs.

Support needed by other programs:

The B.S. Fermentation Science program provides graduates who wish to pursue graduate education via the M.S. in Professional Science (MSPS) degree program at MTSU. Most graduates choose to pursue the Fermentation Science emphasis within the MSPS but some have chosen to pursue other emphases (e.g., Biotechnology). Students majoring in Nutrition and Food Science, Leisure and Sport Management, and Tourism and Hospitality Management also take selected courses offered through the School of Agriculture and Fermentation Science degree program as required elective courses in their selected majors. Specific examples include:

Tourism and Hospitality Management majors: FERM 2500 Wine Appreciation is an elective course.

Nutrition and Food Science, Food Industry Concentration majors: AGRI 3810 Milk Processing and Marketing, AGRI 4200 Fruit and Vegetable Marketing, AGRI 4810 The Food Industry, AGRI 4820 Principles of Food Processing, AGRI 4830 Food Quality Control, FERM 1000 Introduction to Fermentation Science, and FERM 3700 Consumer Motivation and Sensory Evaluation of Fermented Foods are elective courses for this major.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x
Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		

Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				x

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job placement/enrollment in the next academic program:

Since its founding, 100% of graduates of the BS Fermentation Science degree program have landed jobs upon graduation and to date, only 2 of 28 (7.1%) have taken positions outside Tennessee. One graduate elected to pursue watchmaking as a career after completing his degree, another entered active military service, and a third entered a PhD program at Clemson University. To date, 5 BS graduates (17.9%) have entered the MTSU MSPS Fermentation Science degree program upon graduation.

Assessment and program evaluation measures:

There is no standard field test for the Fermentation Science degree, as noted in the external evaluation of the program, which was conducted in the spring, 2023 term. However, program success can be measured by the ability of graduates to secure employment in the field upon graduation, comments received from companies who offer students internships, and reflections from companies which have employed MTSU graduates. During the external review, a reviewer interviewed several current students and reported, "It was clear during the site visit that students are engaging and excelling at fermentation research. This is a gem of the program." and "The student experience appears to be a positive aspect of the program." In addition, it was noted, "The program has enjoyed moderately strong enrolments from its inception and was not as negatively affected during the pandemic as might have been expected. It is not a large program and based on enrollments in other universities probably should not be expected to be a large program." Comments and feedback received from employers and internship sponsors have been consistently positive. The most commonly cited attribute mentioned by these employers is the level of preparation of the students and graduates when they arrive at their place of employment or internship site. Equally important, many of the students are offered positions upon graduation by the companies they intern with. Willingness to employ a student after successful completion of an internship is a highly valued measure of program success.

Student/graduate satisfaction:

All graduating students are interviewed by the program director prior to graduation to assess their satisfaction with the program. To date, no negative comments have been received. Most comments made reflect significant satisfaction with the program and recognition that the program taught them much more than they expected to learn. Many reflect on their disinterest in research upon arrival and their reversal of attitude after completion of the program. An additional indicator of student interest and satisfaction is the number of students who have chosen to pursue the degree who reside out of state. Thus far, students from Maryland, Virginia, Kentucky, Ohio, Georgia and South Carolina have come to MTSU to enroll in the program. Six out of 8 graduating seniors completed the "Graduating Senior Survey" during the 2022-23 academic year (75% response rate) and data was reported on the Power BI dashboard. There were 2 questions asked:

If you could start college again would you enroll at MTSU? 83.3% of these students said YES.
 If you could change your major again, would ? 100% of the Fermentation Science graduates said "Yes".

Other - Study Abroad:

Study abroad courses have been offered for undergraduate students enrolled in the Fermentation Science program. To date, 3 courses have been offered and 18 students have completed study abroad Fermentation Science courses:
 AGRI 4190 International Agriculture: Argentina will be offered in the Summer 2024 FERM 4800 (EXL) International Fermented Foods: Italy, 7 students, Summer 2022 FERM 3200 (EXL) International Wine Industry: Argentina, 4 students, Spring 2019
 FERM 4800 International Fermented Foods: Germany, France, and Switzerland, 7 students, Summer 2018

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	x
Costs/revenue		quantitative		
Enrollment		quantitative		
Retention rates		quantitative		x
Graduates		quantitative		x
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		x
Faculty productivity		both		x
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Cost per degree:

Cost of attendance at MTSU for an undergraduate degree program is comparable to other state funded universities in Tennessee and is often the most affordable. The average tuition cost for the 2022-23 academic year was \$9,592 (<https://www.mtsu.edu/tuition/>). The national average cost of in-state tuition is \$11,560, according to USNews.com. This rate is calculated based on a full-time schedule with 14 credit hours. Most students enrolling in the

undergraduate degree program are classified as “in-state” residents. A few out-of-state students have been attracted to MTSU due to the Academic Common Market program, which currently allows students from Alabama, Kentucky, Louisiana, and South Carolina to enroll in the Fermentation Science program at a reduced tuition rate that’s only slightly higher than in-state tuition rates. Previously, students have enrolled from Maryland, Georgia, and Ohio.

Retention Rates:

Retention rates for the Fermentation Science program compared to School of Agriculture data (5 undergraduate programs: animal science, agribusiness, plant & soil science, horse science, and fermentation science) are listed below. Fermentation Science retention rates were very good in 2018-19 and dropped during the COVID-19 pandemic; they are currently in the 70th percentile. Retention rates have improved during the past 2 years based on available data presented below. Data were obtained from MTSU Power BI Dashboard.

Fall-to-fall retention	AGRI	FERM
Fall 2021	82%	75.90%
Fall 2020	81.2	69.70%
fall 2019	86.3	88%
Fall 2018	80.7	85.20%
Fall 2017	69.2	69.20%

Graduates:

27 students have graduated from MTSU with a B.S. in Fermentation Science (7 graduates in 2018-19, 1 in 2019-2020, 8 in 2020-2021, 3 in 2021-22 and 8 in 2022-23).

External funding produced:

Since fall, 2017, MTSU Fermentation Science faculty have secured more than \$4 million in external grant funds. Examples of funding sources include USDA-NIFA, USDA Capacity Building Grant, Tennessee Department of Agriculture, Tennessee Wine and Grape Board, and private companies. External grant funds have helped improve facilities and purchase equipment for the Fermentation Science research and teaching laboratories.

Faculty productivity:

Since fall, 2017, MTSU Fermentation Science faculty members have published 40 peer reviewed research articles, 2 book chapters, and 12 research posters. Faculty members served on 8 Honors student thesis committees and have been engaged in peer reviewing of research articles (30+), university and public service, service to industry, and student research. One faculty member currently serves as a member of a doctoral committee for an MTSU student and another served as a doctoral committee member for two students at universities in South Korea.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		
Percentage of graduates working in the field		quantitative		x
Community outreach	partnerships, etc.	both		
Employment rate upon graduation		quantitative		x
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer demand:

The program director is notified of employment opportunities for graduates via phone calls and emails on a regular basis. Roughly once per month since August 2017, the program director has received notice of a full or part time job available for current students or graduates of the program. At present, several regional breweries and a local winery are looking for employees and there are no students or graduates of the program available to offer them; all are employed! Full time post-graduation employment opportunities have been received from companies as far away as New Jersey and Texas and part time opportunities abound in the immediate middle Tennessee region. Program interaction with the Tennessee Brewer’s Guild, the Tennessee Distiller’s Guild, and the Tennessee wine industry alone has resulted in demand for graduates we cannot meet.

Percentage of graduates working in the field:

Of the 28 graduates produced to date, only 2 do not currently work in the field (7.1%).

Employment rate upon graduation:

The employment rate upon graduation since program establishment is 100%.

Are there other considerations not outlined above?

The Covid pandemic had a significant impact on this program (as well as all of higher education) but in spite of it, enrollment remained steady or declined less than the overall MTSU rate. Marketing of this program has been minimal, which has not helped enrollment. The external reviewer noted, "It was understood during the site visit that administration would like to see the program exceed 40 students, which seems an attainable goal with an effective and appropriate marketing push. Conversations with administrators during the site visit and personal experience confirm that effective marketing of the fermentation science degree takes a careful and targeted approach due to the general populations lack of familiarity with fermentation." Forty majors is most likely a more attainable goal, considering that is no more than 4 more than the maximum enrollment seen since inception. A change of enrollment expectations is most likely due.

Industry interest in graduates of the program is significant and is national and international in scope. Officials at companies in Sioux Falls, South Dakota (Prairie Aquatech) and Totawa, New Jersey (Advanced Biotech) have reached out directly in search of graduates to hire, and graduates of the program have been hired to work coast to coast (Oregon, Kentucky, and North Carolina) as well as across all of Tennessee. One international company (Lallemand, Inc.) has already extended an employment offer to one a projected Fall 2024 graduates and they also created a position that did not previously exist to employ one of the MSPS graduates. Brown-Forman (Jack Daniels) reached out this semester to recruit students for their internship program, and students have completed internships as far away as California and Italy. With a very limited number of similar programs in existence in the United States, the growing demand for trained fermentation scientists, and the high quality of MTSU graduates, demand for graduates will only increase.

CHATTANOOGA STATE COMMUNITY COLLEGE

Nuclear Medicine Technology, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the Program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another Program	Alignment Statement	qualitative		X
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>METRIC: Alignment with state master plan for higher education: The Program currently serves students of all backgrounds, demographics, income levels, readiness, or circumstances and is committed to meeting student, workforce and community needs for education and training by offering three different pathways of entering the Program based on the student's educational level. Through innovative structure, the Program is able to develop technologists that have recently graduated high school and beginning their educational journey by offering the AAS degree, and also offer the Program to students with a degree that are initiating a career change by providing the one-year certificate Program.</p> <p>Founded in 1993, the Nuclear Medicine Technology Program (NMT Program) developed to meet the regional demand for technologists, originally only accepted radiologic technology students who met the prerequisite course requirements. In 2013, the Program had multiple requests from students in other allied health fields desiring to obtain their certificate in nuclear medicine. The Program met with the NMT Advisory Board and decided to adjust the Program's entrance requirements so other allied health students that held a degree could attend. At that time, the Program also created a pathway for BS students with patient care experience. In 2017, the Program evolved again and implemented the AAS to provide additional pathways for obtaining certification in nuclear medicine. The Program made all of these adjustments in admission and offerings, including adding the AAS degree, without any additional cost to the college.</p>				

During this innovative time, the Program began its evolvement to an online Program. The NMT Program was also the initial allied health certificate/degree obtainable online. The required NM courses originally began as a hybrid model and slowly transformed into the offering of today. Shortly thereafter, the CT and MRI Programs followed our online model.

Currently, the Program offers educational experiences to AAS and certificate students in a five state area: Alabama, Georgia, Kentucky, Tennessee, and West Virginia. Although the Program is online, the faculty must visit the students at the clinic site; therefore, the site must be within an acceptable driving distance.

METRIC: Alignment with ChSCC institutional mission and strategic plan:

The NMT Program supports the Mission statement of ChSCC by offering innovative learning opportunities and the piloting of innovative Program offerings.

At the request of the Society of Nuclear Medicine and Molecular Imaging Technologist Section (SNMMI-TS), the NMT Program was able to become the first allied health Program at Chattanooga State and only one of three in the USA that went global with their students in a pilot study abroad Program. ChSCC represented the AAS degree and certificate pathways on this three-school Program pilot. The other universities were NMT Programs from Regis University in Boston, and Indiana University in Indianapolis. Those institutions represented BS and MS degrees.

Since that time, the NMT Program has collaborated with the ChSCC radiologic technology Program in an interprofessional study abroad program. The students have had the opportunity to visit nuclear medicine departments in places such as London, England; Lisbon, Portugal; and Sydney, Australia. They have visited two different universities abroad, Newcastle University in Australia and **ESTeSL – Escola Superior de Tecnologia da Saúde de Lisboa, in Portugal**. **The students also** toured a nuclear reactor in Australia. The US has no medical isotope-producing reactor. Visiting a reactor of this type, can only be experienced abroad.

The NMT Program faculty also created a nuclear medicine specific scholarship to assist students unable to afford study abroad cost. Since 2018, the Fund has assisted over 10 ChSCC students with the ability to travel abroad.

METRIC: Program is needed to support another Program

Developed as an advanced technical certificate to support radiologic technologist graduates with the opportunity to further their education by attending the NMT certificate Program, the Program currently has the ability to offer both an advanced certificate and an AAS degree. The Program is open to all of the patient care related AAS nursing and allied health graduates at ChSCC. The Program has also accepted AAS degree graduates with a concentration in Radiation Protection from the Engineering and Information Technologies Division.

The NMT Program also has articulation agreements with Middle Tennessee State University and Bluefield State College in WV. The NMT Program is the 4th year of a BS degree in Imaging from each of those affiliates.

In addition to accepting students from other Programs offered at ChSCC, the Program is also a pathway for a student to continue education in CT, MRI, Diagnostic Sonography or Cardiovascular Imaging. ChSCC offers all four modalities.

All pathways offered by the Program require no additional funding to administer.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic Program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	X
Assessment and Program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		X
Foundational skills	Programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

METRIC: Job placement or enrollment in the next academic Program

Job Placement

Job placement has been consistently high. There is a nationwide shortage and urgent need for nuclear medicine technologists. Students are able to graduate and receive sign on bonuses as high as \$15,000.

Because of the dire need for nuclear medicine technologists, the SNMMI-TS has created a specific Workforce Pipeline Taskforce to research ways that the Society can assist in meeting the workforce needs of the profession. There are currently only 67 accredited nuclear medicine Programs nationwide. The low number of accredited Programs is one cause of the shortage. Retiring technologists, technologists leaving during the worst

of the Covid-19 pandemic, continued fast growth in the field in therapy and imaging, lack of knowledge of the field of nuclear medicine technology, and the inability of any of the NMT Programs to accept large groups of students in one cohort are other reasons.

Statistics

2023 - 100%

2022 - 100%

2021 - 100%

2020 - 100%

2019 - 100%

2018 - 85.7%

2017—100%

For 2018, two students did not immediately obtain employment--one was not seeking employment by choice and the other graduate chose to delay employment until a specific facility was able to hire. All students from this year are currently working.

Enrollment

Enrollment of the AAS degree remains at lower level than expected at this time; however, the Program accepts 18 students each year with a combination of AAS and certificate students. Unfortunately, it is difficult for any nuclear medicine Program to accept large classes of students based on the size of the nuclear medicine departments and accrediting body, The Joint Review on Educational Programs in Nuclear Medicine Technology (JRCNMT), Standards for student/camera/certified technologist/number of procedures ratio.

32 = interviewed potential applicants

18 = accepted

15 = attended

9 = AAS

5 = Certificate

Admitting alternates, if an accepted student chooses to defer enrollment within a period that will allow an alternate to complete their vaccines, physical, drug screen and background check, is Program protocol. Due to students withdrawing their acceptance to the Program at an early stage, the Program typically has the opportunity to admit most of the qualified alternates. Unfortunately, students continue to withdraw at a point the Program is unable to accept another alternate. This is due to insufficient time to complete preclinical requirements before the Program begins.

One of the reasons enrollment is low in the AAS degree option is because the students compete for local clinical affiliates. Chattanooga can only host 7 local students. The Program is regional, but has had difficulty recruiting from a larger geographical area. Unfortunately, most students request Chattanooga, but the Program does not have the ability to place them. The Program has had two students relocate in order to enroll in the Program.

The AAS degree enhances overall enrollment of the Program without any additional cost to the Program by being able to pull from multiple populations. By having both pathways, the Program is able to maintain an enrollment at a higher head count.

METRIC: Assessment and Program evaluation measures

The Program performs an assessment of student success and outcomes annually by means of a number of methods. An annual evaluation of the PSLO's for the college, the JRCNMT Annual Report, and results of employer surveys are all utilized in assessing and evaluating student success.

Annual PSLO evaluation

Year	Number of PSLO	Target Met	Made Progress	Target Not Met
2017	5	5		0
2018	3	3		0
2019	3	2	1	0
2020	3	2	1	0
2021	3	2	1	0
2022	3		3	0
2023	3			

Annual report

The Program is required to submit an Annual Report in August each year. Since inception of the Program in 1993, 100% of the annual reports submitted to the JRCNMT were satisfactory. The data required by the JRCNMT includes employer and graduate surveys, job placement, national registry pass rate, course evaluations, PSLO evaluations, graduation rate, and student assessment of the Program.

Employer surveys

The benchmark for employer surveys is to receive nothing lower than a score of three, which is average, on the Likert scaled questions. The results of the survey for the years 2016 to 2017 had no scores less than a three. No employer chose below average as a student rating.

In an overall assessment of satisfaction with the preparation of the students for employment, the results revealed 65% were extremely satisfied, 30% satisfied, and 5% marginally satisfied. There were no responses to dissatisfied.

The marginally satisfied employers suggested the Program place more focus on Positron Emission Tomography (PET) and on medical billing and coding. Since those suggestions, the Program has increased educational opportunities on both topics.

METRIC: Student/graduate satisfaction

The Program has several benchmarks established for determining student and graduate satisfaction. Included in these benchmarks are course evaluations, end of Program surveys, and 6-month graduate surveys. The students also evaluate their assigned clinical affiliate at the end of each semester.

Course Evaluations

The benchmark on fall and spring course evaluations is to a score (4) or higher on the course survey questions. The results of course surveys from 2016-2023 demonstrate that consistently all courses receive a score of (4) or higher, with a very small percentage of lower scores, on every category. The consistent lowest scoring item was "navigating the web page" with 67.5% (5), 25% (4) and 7.5% (3) followed by "organization of the course" being effective with the same statistics amongst all courses.

The survey question "rate the overall quality of the course" in the courses from 2016 to 2023 had an average of:

Strongly agree 84.23%

Moderately agree 14.0%

Agree 0.73%

Moderately disagree 0.40%

Strongly disagree 0.63%

The Writing Research course continues to be unpopular with the students. However, in the discussion board at the beginning of the course, students state their opinion on performing research. Normally, 95% of the students inform the class that research projects are not something pleasant. Beginning the course with a negative attitude, makes it difficult to change the students' opinion on believing research can be a positive process with interesting outcomes.

End of Program survey

For the end of Program survey, the results are as expected. The results are all 4 or higher on a 5-point scale, except for the students scored lowest in preparation in writing research. The score is 3.91 on the 5-point scale. A majority of the students consistently start the semester with a negative attitude toward that particular course because they dislike research projects. In addition, the students do not enter the course

academically prepared to perform formal research. The course assists the student in creating a research paper in multiple steps, so it is not overwhelming. However, it is still difficult to overcome a negative attitude.

Clinical Affiliate Evaluations

Students have the opportunity to evaluate their clinical facility at the end of each semester. The student evaluation of the clinical site benchmark is to obtain a rating of a minimum total of 3.0 or higher on each item on the Student Site Evaluation Survey. The survey has four categories: Clinic Course, Personnel, Clinical Affiliate, and Personal Performance. All items within those categories requesting a response received a score of 3.7 or higher from 2016 to 2023. The two items that received the 3.7 score were Time Management, located within the Personal Performance category, and Number of Clinical Procedures, located within the Clinical Affiliate category. The lower score on number of clinical procedures more than likely were due to responses from students assigned at the Program's lower patient volume sites. The students do have the opportunity to rotate to higher volume sites during the Program to compensate for performing clinical time at lower volume facilities. Time management is something the student will learn, as they become more familiar with the field of nuclear medicine.

Graduate Surveys

The graduate survey expectation is to obtain a score of (2) or higher on the following statements from 2016 to 2023:

Overall assessment of the basic professional preparation for employment that was received at ChSCC:
73.3% were extremely satisfied (1) and 26.7% were satisfied (2). There were no scores lower than a (2)

Indicate your overall assessment of the Program:

80% were extremely satisfied (1) and 20% were satisfied (2). There were no scores lower than a (2)

The student survey results came back relatively mixed on what areas of didactic in instruction would have prepared them better; however, the Clinical Procedures I, II, III were selected 56.7% of the other options. Oddly enough, when asked where they received the most beneficial instruction, the graduates also chose Clinical Procedures I, II, and III. All faculty, physicians, staff nuclear medicine technologists, as well as fellow students all had a positive score of 96.7% to 100% on the individual ratings.

In the section open to comments, the students suggested more focus on PET and EKG. Since then, we have incorporated more information on those topics in our didactic lectures.

METRIC: Licensure/certification pass rate

2018 (certificate only) (100% NMTCB, 92.9% ARRT)

2019 (certificate only) (NMTCB 86.7%, ARRT 92.86%)

2020 (certificate only) (NMTCB 100%, ARRT 100%)

2021 AAS (100% on NMTCB, ARRT 66%) (This was the first year of the Covid-19 pandemic. Registry pass rates were down nationwide amongst all NMT Programs.)

2022 AAS (NMTCB 100%, ARRT 100%)

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		X
Faculty productivity		both		X
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

METRICS: Enrollment and Graduates

Enrollment						
Year	AAS	Certificate	Total	AAS Graduated	Certificate Graduated	Total
Fall 2017	0	16	16	0	14	14
Fall 2018	0	16	16	0	14	14
Fall 2019	0	16	16	0	15	15
Fall 2020	6	9	15	4	9	13
Fall 2021	5	10	15	4	10	14
Fall 2022	6	8	14	6	8	14
Fall 2023	9	5	15			

METRIC: Retention Rates

The retention rate overall for AAS degree students, since degree inception is 82.3%

The retention rate including certificates since 2017 is 91.3%

On average, one student per year will withdraw from the Program for a multitude of reasons. It is not limited to failing grades. This has been the pattern since the inception of the Program in 1993.

METRIC: Amount of external funding

The SNMMI-TS provided \$15,000 to the Foundation to be used for the following:

Purchase of supplies, equipment, software and services related to curricular and instructional support for the Nuclear Medicine Technology Program.

Support of Chattanooga State student, instructor and staff professional development, (including travel, lodging, and meals related to the event).

To help fund faculty salaries for the Nuclear Medicine Technology Program.

Support of speakers' fees and related expenses.

Subsidizing Chattanooga State student enrichment opportunities including outreach events. However, no student scholarships will be provided by this fund.

Purchase of donor, student, faculty and staff recognition pieces. Provided goods or services provided are insubstantial and are token exceptions as defined by the I.R.S. (Reference IRS Publication 1771)

General support of Program related activities.

The faculty has also received physical donations of items such as centrifuges, a Lineator, a dose calibrator, thyroid phantom, disposable supplies like gloves, IV catheters, and syringes, as well as two mock Mo99m/Tc99m generators.

The faculty donate \$1200 annually to the Chattanooga State Foundation towards the Annette Dotson Nuclear Medicine Scholarship. The Scholarship, named in honor of a nuclear medicine student that passed away during the Program, assists students who are unable to afford study abroad by providing financial assistance.

METRIC: Faculty Productivity

The two full-time Program faculty have no set formula to divide didactic, accreditation, and clinical workload into productivity numbers. Required duties to maintain Program and educate NMT students is based on personal and professional strengths. Full-time faculty have been satisfied with this process for 20 years and work well together as a proficient team. The Program is 39 NUCM specific credits for a certificate and 41 NUCM specific credits for an AAS. The full-time faculty instruct 90% of the Program, and routinely assist the two adjunct instructors in their courses.

The Program director (PD) and clinical coordinator (CC) are the only full-time faculty and both share the duties of maintaining current syllabi, instruction, evaluations, grading, and tutoring via WEBEX or in person. The faculty tutor and conference with students on evenings and on weekends because the NMT students are in clinic during the day. The students have faculty members' cell phone numbers and are able to contact them at any time. Each faculty member is designated to teach their specialty topic within each course—i.e. module. Both the PD and CC travel to

clinic sites, sometimes 6.5 hours away in the five state coverage area. In order to save money on the budget, the visits sometimes are 15 hours in one day to avoid an overnight.

The NMT Program employs two adjunct faculty—a radiopharmacist for a 2 credit Radiopharmacology course and 3 credit Computed Tomography course taught by an NM/CT/MRI/PET certified instructor. The PD and CC assist in these courses, as needed. The Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) is impressed with the fact that a radiopharmacist teaches our Radiopharmacology course. Our students consistently score high on the Radiopharmacy sections of both national registries. The students repeatedly state that the CT course appropriately prepares them for the CT centered questions on their registry exams.

In the NMT Program full-time faculty, distribute duties required to maintain accreditation and continue Program function. Both faculty attend on site or complete orientations at the various affiliates over the five state region. Both faculty advise, register students, and hold synchronous online information sessions. Both full-time faculty review transcripts for completion of prerequisites, to ensure the compliance with the JRCNMT Standards. Both assist with Program orientations each semester.

Both the PD and the CC are involved in multiple campus committees and are dedicated to student and college success.

In addition, to the above listed workload, the CC:

provides orientation for new affiliate education supervisors

coordinates student facility orientations through facilities and TCPS

creates Radiopharmacy, PET, and out rotation schedules

collects and reviews both Radiation Therapy and Nuclear Medicine dosimeter badges

manages all lab equipment inventory and provides general care

schedules student interviews

provides clinic site data for self-study

notifies PD of any clinic changes—decreasing/increasing patient numbers, new cameras, or change in staff

participates in a robust high school recruiting/marketing effort by attending high school career and college fairs, as well as presenting to numerous high school classes throughout the Chattanooga State service area.

presents to numerous radiologic technology Programs, as both a community service and a recruiting Program

reviews Trajecsyst student records

updates Trajecsyst for students and affiliate educational supervisors

coordinates students attending the registry review session at Nuclear Medicine Technologist of Tennessee annual meeting each year (travel, hotel, KOFC, room assignments, etc)

advisor for nuclear medicine student organization

attends SGA meetings with students

assists with Oktoberfest booth with students—theme, props, food

In addition to traveling and teaching, the PD

creates annual reports for the JRCNMT
 creates a self-study every 7-10 years
 collects and maintains records of registry exam pass/fail rates
 distributes and analyzes graduate and employer surveys
 updates JRCNMT of any affiliated educational supervisor changes
 attends Program Director Meetings, Academic Affairs Meetings, Faculty Council, Faculty Senate, as well as any special called meetings.
 initiates updates of the Allied Health Handbook yearly, as well as the Program handbook
 schedules Advisory Committee Meetings annually and sends newsletters the semesters that an Advisory Committee Meeting is not held
 completes new affiliate applications to add affiliates, where they are required, to meet student needs
 submits and maintains a balanced budget
 establishes connections between students and Truescreen/My Record Tracker/ACEMAPP
 reviews health, immunizations, background check and drug screen records for compliance from students
 completes CC's supervisor evaluation and serves on College peer committees
 updates the two NMT Webpages, as necessary.
 student review and submission of abstracts and posters for the State and National meetings
 presents to radiologic technology Programs, as both a community service and a recruiting Program
 inventories and orders disposable lab supplies
 updates Abbott monitor yearly
 attends SGA meetings with students
 advisor for nuclear medicine student organization
 assists with student registry review session at SECSNMMI annual meeting

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold.	X
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		X
Community outreach	partnerships, etc.	both		X
Employment rate upon graduation		quantitative		X

Other

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

METRIC: Student Demand

US News rated the profession of a nuclear medicine technologist #28 of the best jobs in America in 2021. The SNMMI-TS has an initiative to inform others on the field of nuclear medicine. As awareness of the field occurs, increased student demand is expected.

The Program hosts online synchronous information sessions 4-5 times per year, as well as offers an online asynchronous information session opportunity for those unable to attend a live session. For the synchronous information sessions, on average 40 people request an invitation to attend. This equates to 160-200 potential students being interested in obtaining more Program information annually.

Each year, the Program receives on average 32 individual applications. This number can fluctuate as high as 45 and to as low as 20. Since the inception of the AAS degree, the number of applications received has increased.

METRIC: Employer demand—Need information from SNMMI

The faculty receive emails and phone calls weekly from employers seeking graduates to fill positions. Employers and recruiters have asked to attend lectures and speak to the students about their companies and employment opportunities. The job market is in such a crisis right now, the SNMMI-TS created a Workforce Pipeline Taskforce to evaluate what the society could do to assist with the shortage.

Although the US Bureau of Labor Statistics only predicts 2% growth in 2021 to 2031, this is not representative of the workforce shortage at this time. It is also not a good representation of growth. This is because of the explosion of new radiopharmaceuticals and therapy agents in the last year that the Bureau did not predict; this statistic needs evaluated for 2023. Theranostics is the future of nuclear medicine and it is evolving at a fast rate.

(See Appendix A—Letter from SNMMI)

The results of the 2023 SNMMI Pipeline Study, to be published 2023/2024, concluded that the field of Nuclear Medicine was not currently adequately equipped to handle the significant projected increase in Nuclear Medicine and Therapy volume over the next 5-10 years. Specifically:

- 2/3 physicians think both theranostics and therapy will increase by >10% in the next years at their facility
- >½ Scientists see therapy increasing by >10% at their facility in the next 5 years
- Facilities are aiming and will need to bolster their workforce by increasing hiring across all personnel categories over the next five years (physicians, scientists and technologists).

20% of physicians, 30% of scientists, and 35% of technologists plan to retire within 5 years.

Industry/companies are now hiring technologists at a significant rate to compensate for the development of new radiopharmaceutical therapies and hardware for imaging.

Decline in the number of nuclear medicine technologists entering the field

Number of Nuclear Medicine Technologist Programs have decreased by 1/3 in the past 10 years; from 97 programmatically accredited programs in 2012 to 68 in 2023.

Number of nuclear medicine technologists sitting for the Nuclear Medicine Technologist Certification Board (NMTCB) has decreased by almost 50% in the last 10 years; from 1,028 in 2012 to 572 in 2022.

Total number of certified nuclear medicine technologists (CNMT) has decreased by over 2,000 individuals in the last 10-years: from 23,667 in 2012 to 21,747 in 2023.

Nuclear Medicine Technology Programs average about 16 applicants with an acceptance rate of about 50% (or 8-9 students).

In forecasting the projected number of NMT students entering the field each year – if all 68 programs accept at least eight students, and there is no attrition during the year, this would result in 544 individuals sitting for the boards and entering the field as a nuclear medicine technologist.

This forecasting is based on data that we know not to be true (ex. all programs accepting at least 8 students & no attrition). However, the result is clear – there are simply not enough nuclear medicine technologists entering the field to compensate for the significant growth and increased demand patients have for personalized medicine – which in short will lead to patient access issues, decreased in quality of medicine provided in the USA, and a threat to molecular imaging and therapy.

According to a 2018 Workforce Projections Study by Health Resources & Services Administration (HRSA), over the next decade, the demand for NMTs will grow by approximately 37%. This means that the increase in demand for NMT services, combined with the previously discussed decline in available Nuclear Medicine Technologists, will result in a roughly 15 to 25% shortage of technologists by 2030.

As it currently stands, thirteen (13) states do NOT have Nuclear Medicine Technology programmatically accredited programs. The lack of pipelines in the thirteen states without a program has caused an increased need for the remaining nuclear medicine technologist programs to graduate more students. However, this has not been the case.

There are far too many nuclear medicine technologist positions open around the country, which has caused institutions to offer hiring bonuses, as well as referral bonuses.

METRIC: Percentage of graduates working in the field

An online survey sent to previous graduates from 2017 to 2023 revealed that 93.55% are still working in the field of nuclear medicine and 3.23% state they are no longer working in nuclear medicine, but did not list current career. 3.23% of surveyed graduates stated they are no longer working in nuclear medicine, but are working in careers such as mammography or clinical research.

METRIC: Community outreach

Both faculty serve the profession by chairing outside professional committees at the national, regional, and state level. One faculty member was President of the SNMMI-TS and the other was Secretary. Both have held the position of president at the state level, and one at the regional level.

All faculty, including adjunct, believe in giving back to the profession and setting a good example for students to follow. The hours that the faculty have volunteered at in the professional, community has not only benefited them personally, but their active role has also benefited the

Program. Selected, as part of the SNMMI-TS study abroad pilot Program, was an example of the benefits of volunteering in professional organizations.

Faculty involvement at the national, regional, and state level promotes the college, as well as identifies any changes in the field that need distributed to the students. Both are also JRCNMT site visitors. The CC speaks internationally at nuclear medicine society meetings representing Chattanooga State at the international level—Japan, Africa, Australia, at this writing.

Last year, the faculty of the Program collaborated with other allied health faculty and visited high schools in a 5 county area with their “Roadshow”. Several of the visits were in underserved areas. The “Roadshow” created to provide the opportunity to inform students about the nursing and allied health Programs offered at ChSCC, including nuclear medicine, has been an outstanding promotional activity. High schools are now contacting the faculty members to bring the “Roadshow” to their schools. The catalyst of this is the reputation of the quality of the Program the faculty offer. The faculty are focusing on reaching regionally further out for the upcoming year.

The Program is looking forward to seeing an increase in students, and seeing if the “Roadshow” met its goals and objectives. The first opportunity to examine the efforts of the faculty will be spring of 2024 during application review. However, only “college ready” students will meet the 2024 potential increase date. The Program anticipates the true enrollment indicator will actually be Spring of 2025 during applications review for Fall 2025 enrollment.

The Program faculty also present lectures on the field of nuclear medicine at colleges in its service area to recruit radiologic technologists into the Program.

One faculty member will be serving on the Tyner High School Board this year. Tyner’s largest Future Ready Academy is the Health Science Academy. Participating on the Board will allow ChSCC to have input to what is necessary for Tyner students to be successful in nursing and allied health Programs, as well as to learn more about what the community needs from ChSCC.

METRIC: Employment rate upon graduation

Graduate Employment Statistics

- 2023 - 100%
- 2022 - 100%
- 2021 - 100%
- 2020 - 100%
- 2019 - 100%
- 2018 - 85.7%
- 2017—100%

Are there other considerations not outlined above?

The faculty would like to reiterate that by offering the AAS there is no additional cost to the college. The Program uses no additional faculty or resources to teach both the AAS and Certificate students. The AAS is only one pathway some students may elect to enroll in to suit their educational goals. Students prefer having choices, and the Program offers many.

Faculty is concerned with enrollment, as is shown by how the Program continually evolves to allow additional entrance pathways, recruiting and forward thinking, and with options such as the possibility of dual enrollment in the future.

The Program has an active advisory committee that supports the Program heavily with donations of supplies, volunteering to create specialty lectures, and recruitment of students. Some facilities fund a student's NMT education with a commitment to work at their facility upon graduation. One to two students per year receive scholarships from a clinical affiliate.

The faculty remain committed to the Program and evolving to meet expected goals.

Optional: Provide a narrative concerning the health of the Program.

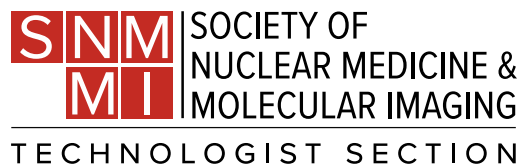
The nuclear medicine Program continues to have an excellent reputation in the community. Application numbers have been increasing for the Program with the assistance of the AAS degree option. The Program needs both the certificate and AAS option in order to maintain an overall enrollment of 14 or higher, with no additional cost for offering both options.

The Program continues to be forward thinking, and is now discussing the possibility of dual enrollment with Hamilton County High Schools. This will increase the AAS degree enrollment.

The Program is able to allow radiologic technology students, who previously only qualified for the certificate Program, the opportunity to become an AAS student by awarding PLA credit for two courses based on their experience in healthcare.

Due to the workforce shortage, the Program should remain relative and viable for the foreseen future. There is proof of a community need, as the Program continues to have 100% job placement with students receiving sign on bonuses as high as \$15,000.

The Program continues to evolve in order to increase quality, enrollment, and meet student and community needs. When the Program enacts change, cost is a variable in the planning. The changes always require no additional funding from the college.



September 2023

Dusty York, MAEd, CNMT, PET, RT(N)(CT), FSNMMI-TS
Clinical Coordinator
Nuclear Medicine Technology AAS Program
Chattanooga State Community College
4501 Amnicola Highway
Chattanooga, TN 37406

Dear Chattanooga State Administration and Others,

There have been 16 new imaging and therapeutic agents approved in the last ten years; that is more than double the number that has been approved in the 10 years prior! What an excellent time for Molecular Imaging...PET diagnostic services are growing in many institutions at a double-digit rate, theranostics for noninvasive cancer treatment has finally launched with the therapy pipeline flowing with gold, and financial projections from the industry showing stratospheric growth in nuclear medicine, PET, and therapy over the next decade. It is a great time...with one small problem, where are all the Nuclear Medicine Technologists (NMTs), those who perform the imaging exams and administer the therapy doses?

The 2023 SNMMI Pipeline Study concluded that the field of Nuclear Medicine was not currently adequately equipped to handle the significant projected increase in Nuclear Medicine and Therapy volume over the next 5-10 years. Specifically, two-thirds of physicians think both theranostics and therapy will increase by >10% in the next years at their facility. More than half of Scientists see therapy increasing by >10% at their facility in the next 5 years. In addition, the study also determined that facilities are aiming and will need to bolster their workforce by increasing hiring across all personnel categories over the next five years (physicians, scientists and technologists). Despite the anticipated growth within the field, about 20% of physicians, 30% of scientists, and 35% of technologists plan to retire within 5 years. Moreover, industry/companies are now hiring technologists at a significant rate to compensate for the development of new radiopharmaceutical therapies and hardware for imaging. The SNMMI plans to publish the findings of this study in 2023/2024.

The crisis that is facing the field of Nuclear Medicine is outlined most significantly in assessing the decline in the number of nuclear medicine technologists entering the field. The number of Nuclear Medicine Technologist Programs have decreased by 1/3 in the past 10 years; from 97 programmatically accredited programs in 2012 to 68 in 2023. In addition, the number of nuclear medicine technologists sitting for the Nuclear Medicine Technologist Certification Board (NMTCB) has

decreased by almost 50% in the last 10 years; from 1,028 in 2012 to 572 in 2022. Finally, the total number of certified nuclear medicine technologists (CNMT) has decreased by over 2,000 individuals in the last 10-years: from 23,667 in 2012 to 21,747 in 2023. Moreover, the SNMMI pipeline study reported that Nuclear Medicine Technology Programs average about 16 applicants with an acceptance rate of about 50% (or 8-9 students). In forecasting the projected number of NMT student entering the field each year – if all 68 programs accept at least eight students, and there is no attrition during the year, this would only result in 544 individuals sitting for the boards and entering the field as a clinical nuclear medicine technologist. This forecasting is based on data the SNMMI knows not to be true (ex. all programs accepting at least 8 students & no attrition). However, the result is clear – there is simply not enough nuclear medicine technologists entering the field to compensate for the significant growth and increased demand patients have for personalized medicine – which in short will lead to patient access issues, decreased in quality of medicine provided in the USA, and a threat to molecular imaging and therapy.

Why is this a perfect storm and one with which hospital leaders are very much concerned with? According to a 2018 Workforce Projections Study by Health Resources & Services Administration (HRSA), over the next decade, the demand for NMTs will grow by approximately 37%. This means that the increase in demand for NMT services, combined with the previously discussed decline in available Nuclear Medicine Technologists, will result in a roughly 15 to 25% shortage of technologists by 2030.

Over the past decade, and really the past three years there has been a paradigm shift in the way education is received and the individuals pursuing higher education. While almost every field is still hemorrhaging from the coronavirus pandemic, the medical and education fields were, by far, hit the worst and have yet to see any type of significant recover. As it currently stands, thirteen (13) states do NOT have Nuclear Medicine Technology programmatically accredited programs. The lack of pipelines in the thirteen states without a program has caused an increased need for the remaining nuclear medicine technologist programs to graduate more students. However, this has not been the case. There are far too many nuclear medicine technologist positions open around the country, which has caused institutions to offer hiring bonuses, as well as referral bonuses.

Over the last two-years, the SNMMI and SNMMI-Technologist Section have invested significant financial and human resources into the study of the critical challenges with the workforce pipeline in the field and with developing resources and outreach to manifest additional interest in Nuclear Medicine (Technology). These efforts have been in the form of an on-site recruitment program for High School students during the 2023 Annual Meeting in Chicago, a Student Leadership Academy for current NMT students – providing a pathway for them to garner leadership skills needed once they graduate and new Jobs of Tomorrow docuseries whereby six (6) different topics will be featured in 30-minute videos that will be available on streaming platforms (Netflix, Apple TV, Roku, etc.). These efforts were identified not only by the Leadership of the SNMMI and SNMMI-TS but by the Industry partners who are, in-part, funding these Pipeline efforts. While these are only a few of the new initiatives the SNMMI is working on, they are outlined to illustrate the significance the SNMMI believes the pipeline will play into the continued expansion and growth of the field. Nuclear Medicine is truly at the forefront of medicine, allowing for precise decision making and personalized medicine for patients who so desperately need it – and their lives are now improved as a result!

The SNMMI-TS urges existing nuclear medicine technology programs and administration to continue to support the unprecedented growth of the profession in two main ways—administration to continue to support the programs and programs accept high quality students into the Nuclear Medicine Technology Programs. The need is great and the demand is strong – the profession needs NMT programs to help ensure that there are qualified Nuclear Medicine Technologist Students who are in the pipeline to help fend off the NMT employment crisis that is on the cusp of occurring. The SNMMI would like to thank and congratulate the leadership of Chattanooga State Community College for their vision in ensuring that their contribution to the future of personalized, precision medicine is at the forefront of their strategic decisions. The Chattanooga State Community College Nuclear Medicine Technology Program and other NMT programs are key to this envisioned future. If

Chattanooga State administration, or other appropriate leadership, is interested in discussing the future of Nuclear Medicine and Molecular Imaging any further, the Society is happy to arrange a mutually agreeable time to discuss this with any leadership representative(s). The SNMMI can provide direct insight on how important the College's Nuclear Medicine Technology Program is for the future of the field.

Sincerely,

Dmitry Beyder, MPA, CNMT
SNMMI-TS President

Paramedic, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
The Ability of a licensed paramedic to obtain an AAS degree aligns with the governor’s vision of an educated workforce as well as TBR and Chattanooga State’s plan to graduate and place educated (trained) people in the workforce. The Governor has challenged TBR institutions to provide an avenue for Tennessee residents to become the well trained workforce desired and needed for the state to continue to be a leader in this area. CHSCC president has challenged the college to graduate individuals prepared with either a certificate or degree to meet the needs of the local workforce.				
Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		
Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		x

Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Since the inception of this degree our records indicate that 74 (102 of 191) of EMT students enroll in the AEMT program. Since the pandemic years 69% of the AEMT students (25 of 36) progress to the paramedic program. Based on the data presented on page nine it would appear that 100% of paramedic certificate graduates enroll in the degree program (60/60). We know this not to be the actual case however as we have observed a trend that sees many graduates of the paramedic certificate wait 1-2 years before enrolling in the degree program. In the early years of the degree we had many returning students enroll hoping to earn their degree.

We send student surveys annually in an effort to improve our delivery and teaching. The return rate of these surveys are unfortunately low but those returned indicate satisfaction in the program.

For the students involved in this degree the licensure rate is 100%. Students must be a licensed paramedic to gain the opportunity to complete this degree.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		x
Retention rates		quantitative		x
Graduates		quantitative		x
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		x

Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Early enrollment was slightly higher as students were looking for an avenue to complete a degree. Retention numbers and graduation numbers are lower as everyone of the students in this program are working full time and it may take several years to complete the additional work required to earn the degree. We have recently received news that two local EMS agencies are now offering scholarships to their employees to assist them in the initial training with the encouragement to continue to the degree. Two further scholarships have been recently created and are rolling out this fall. These will be ongoing, one funded by a local business owned by a graduate and the other by a local service group. Another ongoing scholarship is being offered by the regional Director’s association. (see page 9 for data)

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		x
Community outreach	partnerships, etc.	both		x
Employment rate upon graduation		quantitative		x
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The program feeds students into the degree. The rate has been slower than we had hoped and anticipated but I believe will continue to grow.

100% of our graduates are working in the EMS field at some level.

As stated in another section we have seen financial support to assist students increase from a variety of sources. We have begun a dual enrollment - program with two area high schools, (grant funded) with two more interested in the program, with the long-term goal of earning the degree.

100% of our graduates are employed in the EMS field.

Are there other considerations not outlined above?

The recent pandemic has highlighted a shortage of qualified individuals in EMS. It has also highlighted the risks that are taken daily by the people who choose to operate within this industry. It has placed not only an emotional strain on the practitioners, but also a time strain. Many who would like to continue their educational pursuits find themselves devoid of the time and sometimes the energy to move forward.

Optional: Provide a narrative concerning the health of the program.

I am seeing continued interest in the program. I would hope to see the continuation of the program as an avenue for the completion of a degree. More and more individuals are understanding that upward mobility in this industry will require more education. Many who wish no upward mobility but simply to be a better provider are understanding that the degree will make them a better-rounded provider. This will ultimately result in better patient care and patient centered experiences.

COLUMBIA STATE COMMUNITY COLLEGE

Anesthesia Technology, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>Alignment with state master plan for higher education: Columbia State's Anesthesia Technology program is aligned with <i>Enabling the Competitive Edge: Tennessee Higher Education in the New Economy – Master Plan Update 2020</i> in the following ways:</p> <p>Enduring Community Ties – When Vanderbilt University Medical Center (VUMC) experienced a challenge in recruiting anesthesia technologists they reached out to Columbia State hoping to create a partnership to guide the curriculum development for a program that did not exist in Tennessee or in our region. VUMC was already familiar the quality of Columbia State students and the service provided by Columbia State when working with VUMC as a clinical affiliate for multiple Columbia State Health Science programs. This new partnership was unique in that VUMC bypassed intuitions within closer proximity to request this program. At the time of this request there were only three accredited programs in the United States. Today, the partnership between VUMC and Columbia State continues as. VUMC is one of the clinical partners in this program and VUMC staff serve on the Anesthesia Technology advisory committee.</p> <p>Access to Higher Education – The addition of this program provided another option for the over ##### students majoring in a Pre-Allied Health Science track at Columbia State. Due to clinical site constraints the college could not expand existing programs. This program offers another path to an A.A.S. degree in a high demand, high pay career field. This program is offered as an evening program. It is the only Health Science A.A.S. degree program offered in the evening.</p> <p>Completion – Columbia State employs College Success Advisors to work with students from admission to on-track for completion of 24 semester hours. As soon as students are accepted into the Anesthesia Technology program they are reassigned to the program director for advising.</p>				

Cohort and Prescribed Scheduling – The Anesthesia Technology program is offered as a cohort-block scheduled program. Students can attend two (or more) semesters at Columbia State completing general education courses prior to formal program entry. Students take an Intro to Anesthesia Technology program course in the Spring semester prior to starting the program. This gives students an opportunity to determine if this career path is a good fit prior to entering the program. The program director teaches the Intro course and is accessible for academic advising during the competitive admission process.

Affordability – Columbia State students benefit from the merit-based, need-based, TN Promise, and TN Reconnect programs. Students in this program have access to all of the financial aid programs. One challenge for this program is that graduates are not required to hold licensure/certification to be employed as an Anesthesia Technologist. The program sought funding to cover exam costs beginning in Spring 2022. This is an example of the efforts to of the program director to reduce costs for students.

Alignment with institutional mission and strategic plan: Columbia State Community College awards two-year degrees in Anesthesia Technology. This degree program is a result of leaders in the healthcare industry approaching Columbia State officials to request a meeting to discuss their need for credentialed Anesthesia Technologists. Columbia State’s mission is to enhance the lives of citizens and the communities of southern middle Tennessee through teaching, learning and student success. The mission of the Anesthesia Technology program at Columbia State is to graduate knowledgeable, skilled and competent professionals who will enter the workforce and positively affect healthcare and raise the standards of patient care by providing a safe anesthetic environment. Borne out of community processes to develop the 2020-2030 Strategic Plan for Columbia State, three goals and their planned strategies directly support the Anesthesia Technology program. Goal 3 Serve the Community states, “Columbia State will actively participate in the development and growth of the service area and the community’s first choice for partnerships,” and has a planned strategy 3.1 to “Create/adopt educational pathways that lead to employment in the community using active industry participation to generate industry-specific programs that include certificates, degrees, and industry certifications.” Similarly, planned strategy 3.5 states, “Develop and offer in-demand, innovative, and responsive technical and educational training (credit and non-credit) programs for service area recognition as the go-to place for employees, worker training, and professional development.” Furthermore, Goal 1 One College states, “Columbia State will function as one college to provide a consistent and successful student experience,” and has a planned strategy 1.8 to “Create a collegial environment with a culture of individual accountability advancing economic and social opportunities.” For the past three years, 17 program graduates have all been offered a \$10,000 signing bonus for employment. Not only do program graduates find employment almost immediately upon graduation but they are also given significant financial incentive to be placed into the field they studied. The Columbia State Community College mission, strategic plan, and the mission and goals of the Anesthesia Technology program are clearly aligned.

The core courses for the program are delivered on the Williamson County Campus located in Franklin, TN. There are only eleven accredited programs in the United States including one in the neighboring state of North Carolina. This program does not only serve a local need but a regional need. This program is a competitive admissions program attractive to both traditional and non-traditional students. The program prepares graduates for eligibility for the certification exam administered by the American Society of Anesthesia Technologists and Technicians (ASATT). However, employers only require degreed students and not those that have earned certification.

Of important note, initial program accreditation for Columbia State’s Anesthesia Technology program was awarded in May 2022. Anesthesia Technologists are required to complete their associate in anesthesia technology or receive a certificate of completion from an accredited or approved program. Although there is a high demand for nurses and physicians, there is also a fast-growing need for anesthesia technologists. According to the US

Bureau of Labor Statistics, surgical technologist jobs (a general term for all occupations who assist in surgical operations) are projected to rise in the United States by nine (9) percent between 2018 and 2028; faster than the expected national average for all careers during the same time range. In Tennessee alone, the projected growth for surgical technologists is 18% from 2020 to 2030, according to Projections Central (a workforce product funded by the U.S. Department of Labor's Employment and Training Administration).

This program is crucial to fulfilling the educational and training needs of the people within the college's service area in the healthcare workforce. In addition to the strategic goals listed above, Goal 3.4 of the college's strategic plan states, "Assess needs and increase partnerships with business/industry to ensure graduates will be valuable members of the community's workforce." This program continually strives to meet a critical need and demand in local and regional health care industries. The college currently partners with Vanderbilt University where they provide clinical experiences and rotations to program students. Maury Regional Medical System and Williamson Medical Center both have an expressed interest in partnering with the Anesthesia Technology program. The healthcare partners are committed to serving as clinical training sites for students in the program, providing a medical advisor to the program, and/or serving in an advisory capacity for program growth and development.

College Goal 1 – One College: Columbia State will function as one college to provide a consistent and successful student experience.

Planned Strategy 1.1 Provide a high level of customer service and effective communication through the complete student lifecycle from recruitment to graduation: Direct outreach is planned to students who apply to Nursing and Radiologic Technology in Fall 2022 and are not selected for Spring 2023 or Fall 2023 admission, respectively. Those students have the option of taking Intro to Anesthesia Technology during Spring 2023 if they are open to other career paths.

Specific advisors have been educated on entry level requirements and the application process needed by students for acceptance into the Anesthesia Technology program. Ongoing training for advisors will continue as needed.

Info sessions were recorded in short clips to market the Anesthesia Technology program to perspective students via social networking and email. This effort was part of a grant funded project for creating promotional videos for high pay/high demand careers such as Anesthesia Technology. As a result, this career video is used for recruitment and is available on the program website at <https://www.columbiastate.edu/academics/health-sciences-division/anesthesia-technology/index.html>.

Planned Strategy 1.4 Maintain modern facilities, security, and technologies to support effective college operations in a safe, student-ready environment: Columbia State has worked to improve the learning environment for the students enrolled in Anesthesia Technology (ANES) over the past 6 years. In the early years of the program, lab space was shared with Nursing. As the program grew, a new space opened in a very large storage area that was suitable for a lab and the program was moved. This was not the final solution as a new building was being requested in 2021 that would eventually create a new space. In fall of 2023, ANES was moved into a newly remodeled classroom/lab built to the programs needs with space for 24 students and over \$100,000 of new equipment. Today, ANES occupies nearly 1,800 square feet of dedicated space with a state of the arts simulation lab.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	X
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		X
Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job placement or enrollment in the next academic program: Job placement numbers for program graduates are provided in table below.

Year	Number of Graduates	Number Employed / Number Actively Seeking = Job Placement %
2019	3	2 / 3 = 67%
2020	7	2 / 2 = 100%
2021	5	5 / 5 = 100% (5 offered \$10,000 signing bonus)
2022	7	6 / 7 = 86% (all offered \$10,000 signing bonus)
2023	8	6 / 8 = 75% (all offered \$10,000 signing bonus)

Assessment and program evaluation measures: The 2022-2023 academic year was the first year that the Anesthesia Technology program officially used Student Learning Outcomes to measure student learning and success. The Assessment methods used include a simulation laboratory and clinical skills check off and the evaluation methods include evaluation by the program director/instructor and a skill check evaluation report. For the first year of implementation, all students met or exceeded the benchmark for the overall assessment. An indirect measure is exit exam scores.

Student/graduate satisfaction: A survey is sent to anesthesia technology graduates that meet the CoA-ATE requirements. It is focused on job placement and of the anonymous surveys returned, the response is positive.

Graduate surveys sent

Graduation year	2021	2020
Graduation surveys sent	5	7
Graduation surveys returned	4	2
Total graduates	5	7

Cognitive results - graduate response

Graduation year	2021	2020
#Positive items	3	3
#Negative items	0	0

Psychomotor - graduate response

Graduation year	2021	2020
#Positive items	5	6
#Negative items	1	0

Affective - graduate response

Graduation year	2021	2020
#Positive items	2	2
#Negative items	0	0

Employers Survey

Graduation year	2021	2020
Total employed graduates	5	3

Employer surveys sent	5	3
Employer surveys returned	5	2

Employers survey results - cognitive

Graduation year	2021	2020
#Positive items	2	2
#Negative items	0	0

Employers survey results - psychomotor

Graduation year	2021	2020
#Positive items	2	2
#Negative items	0	0

Employer results - Affective

Graduation year	2021	2020
#Positive items	6	6
#Negative items	0	0

Licensure/Certification pass rate: Licensure/Certification is not required for graduates to be hired or employed as a Anesthesia Technologist. However, the program has sought funding to cover exam costs for students beginning with Spring 2022. As apparent with success rates below, more students were given the opportunity to sit for the National Certification Exam (NCE).

Licensure/Certification pass rates

2020: 0 out of 1 passed first attempt

2021: 0 out of 2 passed first attempt; 2 out of 5 passed subsequent attempt

2022: 6 out of 6 passed first attempt

Three-year average: 6 out of 9 passed on first attempt for a pass rate of 67%.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X

Student credit hour production		quantitative		X
Student credits to faculty FTE ratio		quantitative		X
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment and Graduation:

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	10	0	0%	2017-18	0	0	--
Fall 2018	20	5	25%	2018-19	5	3	60%
Fall 2019	25	9	36%	2019-20	8	7	88%
Fall 2020	15	25	166%	2020-21	4	5	125%
Fall 2021	26	24	92%	2021-22	12	7	58%
Fall 2022	26	28	112%	2022-23	10	8	80%
Fall 2023	26	28	108%	2023-24	13		

This is a 1+1 program. Students declare the Pre-Allied Health Anesthesia Technology (AS) track during the first year while completing general education requirements for program admission and change to the Anesthesia Technology (AAS) major when they are officially accepted into the Anesthesia Technology courses. Projected enrollments include the total number of students enrolled at Columbia State due to the Pre-Allied Health track for Anesthesia Technology. The projected enrollment listed above is the total number of Pre-Allied Health Anesthesia Technology (AS) students plus the Anesthesia Technology (AAS) majors. Actual enrollments initially reported above from THEC for Fall 2018 and 2018 only include the students accepted and taking Anesthesia Technology courses in the second year. Percent attainment will not be 100% percent because this does not match the original goal reported.

Enrollment: For Fall 2022 there were 8 actual majors in Anesthesia Technology (AAS) and 20 Pre-Allied Health Anesthesia Technology (AS) students. The total (28) is slightly above the projected (26) enrollment. Students in this program attend classes on campus and also attend many clinical hours at a hospital.

During the Spring 2023 semester, 11 students were enrolled in the Intro to Anesthesia Technology class which is the required prerequisite for majors to start the program in the Summer of 2023. Nine (9) students began the major cohort classes during Summer 2023 by completing two subsequent Anesthesia Tech courses. This program continues to grow. At this time, there are 17 Pre-Allied Health Anesthesia Technology (AS) students enrolled for the Fall 2023 term.

Retention Rates: Of the ten majors from Fall 2022, eight continued to the Spring 2023 and eight completed graduation requirements. Graduation for 2021-22 includes number of students awarded the A.A.S. in Anesthesia Technology in the Summer 2022, Fall 2022, and Spring 2023. Eight students graduated during this timeframe.

The program continues to work collaboratively with Medical Terminology and Chemistry faculty/mentors to address student retention of information with the purpose of improving assessment data and clinical narration data. There are also ongoing efforts to encourage/incentivize pre-ANES students to seek out additional tutelage for Chemistry and Biology courses.

The high impact practice of clinical rotation, observation and narration was included into the curriculum with a goal of improving student retention and success.

Ongoing efforts to improve retention and withdrawal rates:

Students in the program are required to attend an exit meeting with the instructor before withdrawing from the courses/program.

The program director provides students with constructive feedback on a daily basis.

Faculty teaching the Medical Terminology and Chemistry courses required for Anesthesia Tech are given a list of students in the program and are encouraged to notify the program director of early signs of low/nonperformance.

Student credit hour production: The following table shows total student credit hour production per term for 2022-2023 academic year.

Term	Credit Hours
Pre-admission	325
Summer 2022	121
Fall 2022	160
Spring 2023	119
Total:	725

Student credits to faculty FTE ratio: The program director teaches all student credit hours in the program.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	X
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		X
Community outreach	partnerships, etc.	both		X
Employment rate upon graduation		quantitative		X
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Community Outreach: Recruitment of qualified students for entry into program continues to be a challenge. ANES participated in MASH 2022 and will participate in other such activities for recruitment. The program director has partnered with the department of Diversity, Equity and Inclusion at Vanderbilt and have done a few community career events with youth advocacy programs. Advertising has been with key stakeholders-local associations of anesthesiologists and registered nurse anesthetists to help educate the local community that the program continues to be offered. The program director and students have also attended a few High School and 8th grade events at local educational agencies including Culleoka Unit School and Franklin Special School District. Direct outreach was planned to students who applied to Nursing in August 2022 but were not admitted for a January 2023 program start. This allowed those students the option of taking Intro to Anesthesia Technology during Spring 2023 if considering other career paths. Program officials plan to participate in more recruiting opportunities in the year to come such as:
 Creation of career video used for recruitment and available on the program website at <https://www.columbiastate.edu/academics/health-sciences-division/anesthesia-technology/index.html>.
 Use of Navigate (CRM) for information dispersion to Health Sciences students
 Fall 2023 – contact students who applied to Nursing but are selected for program admission for a January 2024 program start. This allows those students the option of taking Intro to Anesthesia Technology during Spring 2024 if considering other career paths.

Employer Demand: There has been an increased interest from community stakeholders for qualified anesthesia techs. Community stakeholders actively recruit from our pool of quality anesthesia technology candidates.

List of employers where Anesthesia Technology graduates have been placed:

Vanderbilt University Medical Center
Monroe Carell Jr. Children's Hospital at Vanderbilt
Williamson Medical Center
St. Thomas West

Other hospitals that have reached out seeking graduates:

Methodist Le Bonheur Healthcare, Memphis
St. Thomas Rutherford
New Hanover Regional, Wilmington, NC

Local need/demand for Anesthesia Technology graduates.

Vanderbilt University Medical Center – 20+
Monroe Carell Jr. Children's Hospital at Vanderbilt – 3+
Williamson Medical Center – 1+
St. Thomas West – 2+

Out of the five (5) graduates in May 2021, four of them accepted positions in the field that included a \$10,000 sign-on bonus. Job placement numbers for program graduates are provided in table below. All graduates employed were placed into the field, resulting in 100% of graduates working in the field.

Year	Number of Graduates	Number Employed / Number Actively Seeking = Job Placement %
2019	3	2 / 3 = 67%
2020	7	2 / 2 = 100%
2021	5	5 / 5 = 100% (5 offered \$10,000 signing bonus)
2022	7	6 / 7 = 86% (all offered \$10,000 signing bonus)
2023	8	6 / 8 = 75% (all offered \$10,000 signing bonus)

Are there other considerations not outlined above?

Challenges: Recruitment of qualified students for entry into the Anesthesia Technology program continues to be a challenge. While the enrollment numbers for students admitted into Anesthesia Technology courses remain steady or low, the overall number of students declaring Pre-Anesthesia Technology under University Parallel seems to grow. This is due in significant part to students not being able to achieve minimum course requirements for acceptance into the program. Ongoing and new strategies for improvement are being employed (for more information, refer to sections on Student Recruitment and Retention). Current collaborative efforts with College Success Advisors exist to assist students in completing General Chemistry 1 and both Anatomy and Physiology 1 & 2. Furthermore, students being ineligible for BIOL 2010 during their first fall term are automatically placed into a three-year plan thus, resulting in diminishing rates for program admission and degree completion.

Clinical sites pose restrictions and limitations to their meeting accreditation requirements for supervision of students needing to satisfy clinical hours. Eligible clinical sites can only permit a limited number of students in the facility so having a few sites that cannot participate deems a challenging aspect for students meeting graduation requirements on time. At this time, Vanderbilt is the only clinical site being used. This sometimes poses transportation issues for students traveling from southern middle Tennessee. The program director works with students as much as possible giving time extensions so that students can complete course work and clinical when reliable transportation is attained.

Other issues that have arisen during the previous two graduating classes are acceptable behavior and professionalism of students. Class of 22- one student reported for clinical and then could not be located until end of scheduled time.

Class of 23- this was an exceptional class of issues as their last two years of high school where during COVID. They were very socially immature and required an extensive amount of supervision both in clinical and class.

A "click" of 4 students banded together and started to pick on another student.

We had bouts of crying and temper tantrums when they didn't get the assignment of their choice.

One student began to aggressively flirt with a staff member.

Another student openly discussed their sessions with their psychiatrist.

Optional: Provide a narrative concerning the health of the program.

Overall, the Anesthesia Technology program is trending in an upward direction. Substantial work has been put into spreading the word about the field and to educate potential students on the benefits of a career in anesthesia technology. Educational awareness is being provided for both the potential student as well as the stakeholders and potential employers so they understand the value in our graduating students.

The growth may be slow but that is a good thing to provide consistent and quality-based education opportunities for students.

Currently, we are taking steps to build a "bridge program" that will offer current certified anesthesia techs the opportunity to sit for the certified anesthesia technologist program. ASATT is finalizing requirements for CAAHEP approved programs.

The recent addition of a fourth building on Columbia State's Williamson campus has now provided a designated space for the Anesthesia Technology program beginning with the Fall 2023 term and will allow for more continuity and ownership of the program and its value to the college.

We look forward to more outreach and recruitment opportunities in the year to come.

DYERSBURG STATE COMMUNITY COLLEGE

Health Sciences, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Alignment with state master plan for higher education:

The Tennessee Higher Education Commission adopted the Master Plan for Tennessee Postsecondary Education 2015-2025 in 2015. The Plan is divided into three sub-sections: Student Success, Family Prosperity and The Future Workforce. The Master Plan supports the Drive to 55 initiative. The Drive to 55 goal is that 55% of Tennesseans will hold a post-secondary credential by 2025. Implementation of the Associate of Applied Science degree in Health Sciences offers high school dual enrollment students a tuition paid path to earning embedded certificates such as those associated with the Healthcare Technician certificate. High school students are able to use the TSAC dual enrollment grant, first-time freshmen use Tennessee Promise, and adult students can use Tennessee Reconnect to cover tuition resulting in an affordable degree path leading to a career in the workforce.

Alignment with institutional mission and strategic plan:

The mission of Dyersburg State Community College is to be an open-access higher education institution that seeks to provide high quality educational opportunities through its excellent technical and transfer degree programs, certificates, and workforce development initiatives. The college focuses on the following to execute the mission: opportunity, student success and exceptional student service, academic excellence and innovation, integrity, unity and compassion, and impactful communication. Dyersburg State Community College's strategic plan revolves around five major focus areas: Support Student Success, Promote Academic Excellence, Cultivate Community and Workforce Development, Strengthen Campus Culture and Prioritize Access and Equity.

A student can apply certificate hours toward the AAS in Health Sciences if they earn a certificate in the following: Advanced Emergency Medical Technician, Emergency Medical Technician, Electronic Health Record, Healthcare Technician, Medical Coding or Paramedic. The AAS in Health Sciences degree pathway provides an opportunity for students to have a choice in the pathway to earning the Associate of Applied Science in Health Sciences. The included certificates are in areas with nationally recognized certification exams which prepares students to enter the workforce while completing the Associate degree.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x
Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job Placement: Of the seven graduates in academic year 2022-2023, five are working in a Health Science field, one is continuing their education, and one is working outside of a Health Science field.

Assessment and program evaluation measures: The Health Sciences program is exempt from major field-testing requirements for low-productivity and for being a multi-disciplinary program.

Student/graduate satisfaction: Health Sciences students complete a satisfaction survey in the fall semester each year. The mean score for Health Sciences students was 3.85 compared to 3.37 for all other DSCC programs.

Foundational Skills: The Proficiency Profile Exam will be used to measure the general education assessment of Health Sciences graduates. The 2022-2023 average score for Health Sciences graduates was 431 compared to the national average of 436 and a DSCC overall average score of 440. If the lowest outlier score is removed, the average score of Health Sciences graduates is 435.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		x
Enrollment	Fall Enrollment-End of Term	quantitative		x
Retention rates	Fall to Spring (Argos: RETN0017-all AAS-H.S.)	quantitative		x
Graduates	Summer, Fall, Spring	quantitative		x
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Fall to Spring Retention

Year	% Retained
Fall 2022-Spring 2023	83%
Fall 2021-Spring 2022	77%
Fall 2020-Spring 2021	65%
Fall 2019-Spring 2020	68%
Fall 2018-Spring 2019	66%
Fall 2017-Spring 2018	67%

Enrollment and Graduates

Enrollment-End of Term				Graduates			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	20	3	15%	2017-18	0	0	--
Fall 2018	40	19	48%	2018-19	20	0	--
Fall 2019	40	127	318%	2019-20	20	4	20%
Fall 2020	50	84	168%	2020-21	10	5	50%
Fall 2021	60	53	88%	2021-22	15	5	33%
Fall 2022	70	47	81%	2022-23	20	7	35%
Fall 2023	70			2023-24	20		

The AAS, Health Sciences is a multi-disciplinary program with six embedded certificate pathways in health-related fields. The main “feeder” program/pathway is Healthcare Technician. The Healthcare Technician program has experienced significant enrollment increases in dual enrollment high schools. Dual enrollment students are encouraged to complete the AAS, Health Sciences after high school graduation since certificate hours can be applied to the AAS.

Costs/Revenues

Expenditures					Revenue	
Year	Projected One-Time	Actual One-Time	Projected Recurring	Actual Recurring	Projected Tuition Revenue	Actual Tuition Revenue
FY 17-18	\$0	\$0	\$36,300	\$0	\$52,000	\$11,680
FY 18-19	\$0	\$0	\$36,300	\$0	\$750,000	\$375,232
FY 19-20	\$0	\$0	\$36,000	\$0	\$800,000	\$391,272
FY 20-21	\$0	\$0	\$36,000	\$0	\$105,840	\$260,232
FY 21-22	\$0	\$0	\$36,000	\$0	\$158,760	\$167,409
FY 22-23	\$0	\$0	\$36,000	\$0	\$211,680	\$153,819
FY 23-24	\$0					

Since the AAS, Health Sciences is multi-disciplinary and consists of courses already being taught, no additional costs have been incurred as the result of this program.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		
Percentage of graduates working in the field		quantitative		x
Community outreach	partnerships, etc.	both		x
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand: According to the www.jobs4tn.gov site, there are 829 job openings in the DSCC service area for Medical Assistants, 341 job openings for Phlebotomists, 183 job openings for Emergency Medical Technicians, and 157 job openings for Paramedics. All of these jobs can be obtained by earning one of the technical certificates embedded in the Associate of Applied Science in Health Sciences degree.

Percentage of graduates working in the field: Seventy-one percent of the 2022-2023 A.A.S. in Health Sciences graduates are working in the field.

Community Outreach: The Associate of Applied Science Degree in Health Sciences allows students to obtain the Advanced Emergency Medical Certificate, Electronic Health Record Certificate, Emergency Medical Certificate, Healthcare Technician Certificate, Medical Coding Certificate and Paramedic Certificate. For students to obtain the hands-on knowledge and skills required of these certificates, DSCC has clinical partnership agreements with local hospitals, clinics, and facilities across West Tennessee. A few of those clinical agreements include: West Tennessee Healthcare (Dyersburg, Martin and Jackson), Baptist Memorial Healthcare (Union City, Tipton, Memphis), Regional One Medical Center, Baptist Ambulance, and Ambulance Service of Dyersburg. Without clinical partnership agreements, the programs could not exist. These agreements allow the students to develop a

relationship with the clinical sites. In return, the clinical sites express interest in employing students upon graduation and supporting the healthcare needs of the surrounding communities.

The embedded certificate programs also participate in Advisory Committee meetings which is a meeting of local employers and stakeholders from each field of study. For example, the Healthcare Technician advisory committee consists of DSCC stakeholders, Baptist Memorial Healthcare, West Tennessee Healthcare, Davita Dialysis, Lake County High School, Hometown Urgent Care, and Southgate Living Center.

Optional: Provide a narrative concerning the health of the program.

Increased demand for the certificates embedded in the Associate of Applied Science degree in Health Sciences should have a positive impact on future enrollment and completion of the A.A.S. program. For example, the Healthcare Technician program has grown from 15 students in Fall 2020 to 77 students in Fall 2023 which does not include non-degree seeking dual enrollment students enrolled in Healthcare Technician courses. A full-time Coordinator was recently hired to oversee and promote the Healthcare Technician program.

The fall to spring retention of Health Sciences students has increased from 67% to 83% since the program's inception. Fall to Fall retention has increased from 66% in the first year to 67% for Fall 2022 to Fall 2023.

MOTLOW STATE COMMUNITY COLLEGE

Entrepreneurship, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Alignment with State Master Plan for Higher Education: The AAS in Entrepreneurship program aligns with the state master plan to increase outreach to adults, specifically the unemployed/underemployed adults. As of Fall 2022, approximately 29% of the students enrolled in the program were adult students. As part of the program requirements, students must complete an internship or capstone project. This requirement ensures that students are exposed to industry and are prepared for workforce needs in the state. This exposure and preparation align with the state’s master plan for building the workforce with “skilled, credentialed Tennesseans.”

Alignment with the Institutional Mission and Strategic Plan: Motlow’s strategic plan includes a goal to increase access to high education through enrollment growth for all students and for targeted populations including Pell Eligible and Adults. The Fall 2022 enrollment for the AAS in Entrepreneurship program included 29% of the program’s total enrollment as adult students, and 56% of the program’s total enrollment were Pell Eligible. Additionally, Motlow’s strategic plan includes an overarching priority focused on community and workforce development. The AAS in Entrepreneurship is designed to prepare students to enter the workforce as skilled and credentialed graduates with workforce experience through the internship/capstone requirement. These goals and priorities are in alignment with the college’s mission statement which outlines the institution’s commitment to provide “degree and non-degree programs designed to develop immediate job-readiness skills and competencies; and public service, lifelong learning, and workforce development programs to promote personal enrichment and economic and community development.”

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		X
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Assessment and Program Evaluation Measures: Students in the AAS in Entrepreneurship program must complete the internship or capstone course prior to graduation. For the 2022-2023 academic year, 42 students completed these courses, and the overall success rate was 95.2%. Motlow determines success as a final course grade of C or higher. This data was extracted from the end of term files for both the Fall 2022 and Spring 2023 semesters. These courses require students to demonstrate mastery of the following program learning outcomes: 1) Learn initiative, self-direction, productivity, and accountability skills that are necessary to maintain their own business; 2) Develop decision-making and problem-solving skills; and 3) Obtain practical experience through the project capstone course or an experiential learning practicum. The success rates in ADMN 2390 and ADMN 2395 demonstrate successful evaluation of key assessment measures for students in this program. The college has also piloted a new major field assessment for this course to assess all graduates from the fall and spring semesters. This assessment tool was developed internally, and the pilot of this multiple-choice exam was conducted for Spring 2023 graduates with an average score of 90%. The assessment will be implemented for all 2023-2024 program graduates.

Student/Graduate Satisfaction: Student respondent results on the Community College Survey of Student Engagement (CCSSE) in Spring 2023 indicated that students meet or exceed their peer groups when responding to questions about critical thinking skills. Critical thinking and problem-

solving are part of the program learning outcomes for the AAS in Entrepreneurship program. On CCSSE items 5c-e and 11d-e, students met or exceeded the peer colleges' mean scores. When asked about the overall education experience at Motlow, student respondents' average score indicated a rating of "good" and scored consistently with its peer institutions. For the AAS in Entrepreneurship program, the departmental leadership plans to collaborate with Motlow's Office of Institutional Research and Effectiveness to develop stakeholder satisfaction surveys specifically for this program.

Foundational Skills: As part of the general education assessment of courses required for the AAS in Entrepreneurship, the college regularly monitors success rates. Students in the AAS in Entrepreneurship must complete ENGL 1010 and COMM 2025, as well as an economics course. For the 2022-2023 academic year, students enrolled in COMM 2025 had a course success rate of 82.4%, and students in ENGL 1010 had an overall success rate of 73.5%. For ECON 2100, the success rate was 81.6%, and the success rate in ECON 2200 was 83.4%. These percentages, which were calculated using end of course files, demonstrate continued success in the courses required for the AAS in Entrepreneurship program. Additionally, each of these courses is assessed in the general education assessment process. For ECON 2100, which was assessed in Fall 2022, the targeted goal was for students to score 70% or higher on the common assessment questions, and this goal was met for 4 of the 5 assessment questions. The same target of 70% was utilized for ECON 2200 which was assessed in Spring 2023, and all five assessment questions exceeded this goal. For COMM 2025, all learning outcomes exceeded the 70% goal for students to score in the "good" or "excellent" categories on the common rubric. Since the general education courses are assessed on a 2-year rotating basis, ENGL 1010 was last assessed in Fall 2021 and will be assessed in Fall 2023. While not general education courses, the AAS in Entrepreneurship program does require students to complete major core requirement courses. Those include ACCT 1010, ADMN 1313, BUSN 1305, BUSN 2380, and INFS 1010. In 2022-2023, the overall course success rates for these courses were as follows: ACCT 1010 – 79.4%; ADMN 1313 – 85.3%; BUSN 2380 – 86.5%; and INFS 1010 – 70.6%.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production		quantitative		X
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: The AAS in Entrepreneurship program saw an increase in the overall enrollment in Fall 2022. The college had originally projected that 45 students would be enrolled in the program in Fall 2022; however, the enrollment exceeded that amount with 48 students, which is 106% attainment of the projected goal. This number is also a significant increase from the Fall 2021 program enrollment number of 19. The Fall 2022 FTE for this program was 38.4 which is an increase from the Fall 2021 FTE of 25.6.

Retention Rate: For the AAS in Entrepreneurship program, the fall-to-fall retention rate for students in the program was 39.6% in Fall 2022. This is a decrease from Fall 2021 which included a rate of 47.1%. Program leadership will work with the Business & Technology Advisory Board to gain insights and develop a robust action plan to modify courses in the program and increase success rates with revised course content as appropriate, as well as boost program enrollment numbers. The academic program leaders are also focused on targeted interventions for program students to improve advising techniques to ensure student success.

Graduates: In 2022-2023, this program had 2 graduates which is only 11% attainment of the original projection. This slow start to program completion may have been impacted by the pandemic since the program did not start until Fall 2020. However, the course success rates and increased enrollment in the program should support increased program completion numbers for future academic years.

Student Credit Hour Production: The total credit hours earned for students in the AAS in Entrepreneurship program has increased each fall since its inception in Fall 2020. For 2020, students earned 289 credit hours. In 2021, that number increased to 787, and in 2022, students earned 1160.35 credit hours. This increase reflects the program's growing enrollment and continued work toward increasing the number of program graduates.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		
Percentage of graduates working in the field		quantitative		X
Community outreach	partnerships, etc.	both		X
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand: According to the U.S. Bureau of Labor Statistics, private sector job gains grew in Tennessee in March 2022 by 48,639. This trend has continued to increase consistently for each of the prior 4 quarters. This is a 6.6% increase in the total employment gross job gains for the state for the first quarter in 2022. The AAS in Entrepreneurship supports the continued demand for skilled business professionals entering the Tennessee workforce. Program leadership is expanding its outreach to industry partners and workforce stakeholders to determine additional needs so that curriculum and content can be adapted for the growing demands in the job arena. Motlow's Business & Technology Advisory Board meet regularly to provide feedback and suggestions for the program as part of the college's continuous improvement efforts.

Percentage of Graduates Working in the Field: Each year, Motlow surveys its Business and Technology graduates to gain insights on job placement for individual students. Of the 5 program graduates since the program's inception, four of the five students responded to the graduate survey. Of those four who provided responses, all four are employed in their degree field.

Community Outreach: At the program's inception, Motlow collaborated with local TCATs to develop partnerships for TCAT employees. These employees could enroll in the AAS in Entrepreneurship program to earn college credits alongside potential Prior Learning Assessment credit (when applicable) with the goal of earning an AAS. TCAT employees did not take advantage of this initially, and this may have been a result of the ongoing pandemic which coincided with the start of the program. However, Motlow has renewed discussions with local TCATs to develop community partnerships with employees seeking degrees in higher education. The college had originally worked with TCATs McMinnville and Livingston, and the college plans to expand those discussions to TCATs Murfreesboro and Shelbyville.

Optional: Provide a narrative concerning the health of the program.

While the pandemic impacted the enrollment and graduate projections from the start of the program in 2020, the college continues to work diligently to increase its enrollment and graduation numbers for the AAS in Entrepreneurship. The increased enrollment in the program indicates a renewed interest in entrepreneurial work, and the program leadership will continue to review and revise program content and quality as needed to ensure that students are successful in the program. The college will utilize input from community and workforce stakeholders to determine any programmatic changes to better serve the students as skilled members of the workforce.

Fine Arts, Associate of Fine Arts (AFA)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>Alignment with State Master Plan for Higher Education: The AFA in Fine Arts program aligns with the State Master Plan for Higher Education’s goal to “increase completion rates and the number of degrees conferred in pursuit of the Drive to 55.” In addition to the AA, AS, AST, and AAS degrees, the AFA provides another avenue for students inclined toward the fine arts to complete a credential.</p> <p>Alignment with Institutional Mission and Strategic Plan: Motlow’s Mission Statement states that the college “strives to develop the cultural, intellectual, and career opportunities of the people in its Southern Middle Tennessee eleven-county service area.” The AFA in Fine Arts program supports the cultural and intellectual growth of its students and community by providing exposure to the humanities and performing arts. Additionally, the college’s strategic plan includes an open access priority to increase access to higher education. This academic program provides additional access to the students within the service area as another avenue for achieving a higher education credential.</p>				
Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X

Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		X
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Assessment and Program Evaluation Measures: The AFA in Fine Arts program does require students to complete core requirement courses for each of the areas of emphasis: Art (Studio), Theatre Performance, and Music. For the Art (Studio) area of emphasis, students must complete ART 1045, 1050, 1340, and 1350. For these courses, the overall course success rate was 81.9% in 2022-2023. For the Theatre Performance area of emphasis, students complete THEA 1015, 1020, 1025, 2015, 2030, and 2011, and the course success rate was 78.1%. For Music, students must complete MUS 1057, 1155, 2055, 1058, 1156, 2056, 1027, and 1127. The overall course success rate for these courses was 79.2% in 2022-2023. These courses require students to demonstrate mastery of the following program learning outcomes: 1) Demonstrate fundamental studio practice, techniques, materials, and various creative methodologies and 2) Identify and articulate the significance of major periods and works in the history of art. Program leadership and departmental faculty continue to review assessments to determine opportunities for continuous improvement in support of program growth and student success.

Student/Graduate Satisfaction: Student respondent results on the Community College Survey of Student Engagement (CCSSE) in Spring 2023 indicated that students meet or exceed their peer groups when responding to questions about critical thinking skills. Critical thinking and problem-solving are part of the program learning outcomes for the AFA in Fine Arts program. Students who complete this program will be able to “demonstrate an understanding of the formal elements and principles of design by using related problem-solving skills to organize, analyze, and interpret visual information,” and they must be able to “demonstrate critical analysis applied to their own work and the work of others.” On CCSSE items 5c-e and 11d-e, which focus on critical thinking skills, students met or exceeded the peer colleges’ mean scores. When asked about the overall education experience at Motlow, student respondents’ average score indicated a rating of “good” and scored consistently with its peer institutions.

Foundational Skills: As part of the general education assessment of courses required for the AFA in Fine Arts, the college regularly monitors success rates. Students in the AFA in Fine Arts must complete ENGL 1010, ENGL 1020 and COMM 2025, as well as other general education courses. The two composition courses and the communications course provide a foundation for the program learning outcomes that requires students who graduate with the AFA in Fine Arts to “communicate effectively orally and in writing about art.” For the 2022-2023 academic year, students enrolled in COMM 2025 had a course success rate of 82.4%, and students in ENGL 1010 had an overall success rate of 73.5%. For ENGL 1020, the overall success rate was 83.8%.

These percentages, which were calculated using end of course files, demonstrate continued success in the courses required for the AFA in Fine Arts program. Additionally, these courses are assessed in the general education assessment process. For COMM 2025, all learning outcomes exceeded the 70% goal for students to score in the “good” or “excellent” categories on the common rubric. Since the general education courses are assessed on a 2-year rotating basis, ENGL 1010 was last assessed in Fall 2021 and will be assessed in Fall 2023, and ENGL 1020 was last assessed in Spring 2022 and will be assessed in Spring 2024. Students in the AFA in Fine Arts program must also take a literature course. In Spring 2023, ENGL 2130 and 2235 were assessed as part of the general education assessment. For each of the course learning outcomes, more than 90% of the students met or exceeded expectations. In 2022-2023, the overall course success rate for literature courses was 85%.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production		quantitative		X
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: The AFA in Fine Arts program did see growth in the overall enrollment in Fall 2022. The college had originally projected that 30 students would be enrolled in the program in Fall 2022; however, the enrollment fell just short of that amount with 27 students, which is 90% attainment of the projected goal. This number is still a significant increase from the Fall 2021 program enrollment number of 14. The initial census data for Fall 2023 also shows continued program growth with 46 students enrolled in the program for the current semester. The Fall 2022 FTE for this program was 8.1. The program has seen more growth since its decline in Fall 2021 which was impacted by the pandemic and the subsequent inability to host performing arts events during the implementation of Covid safety restrictions.

Retention Rates: The fall-to-fall retention rate for students in the AFA in Fine Arts program was 55.6% in Fall 2022. This is a slight decrease from the Fall 2021 retention rate of 57.1%, but both of these are significant improvements from the Fall 2020 rate of 40.9%. The fall-to-spring retention rates for this program increased in Fall 2022. The fall-to-spring retention rates were 59.1% in Fall 2020, 50% in Fall 2021, and 63% in Fall 2022. These retention rates are based off of census files for each semester.

Graduates: In 2022-2023, this program had 5 graduates which is 50% attainment of the original projection, but given that this is more than double the number of graduates from the previous year, it still demonstrates program growth. This slow start to program completion was impacted by the pandemic and the inability to provide performing arts events. However, the course success rates and increased enrollment in the program should support increased program completion numbers for future academic years.

Student Credit Hour Production: The total credit hours earned for students in the AFA in Fine Arts program has increased since Fall 2021. For 2020, students earned 214 credit hours. In 2021, that number decreased to 152, and in 2022, students earned 477 credit hours. This increase reflects the program's growing enrollment and continued work toward increasing the number of program graduates.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		X
Community outreach	partnerships, etc.	both		X
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand: According to the U.S. Bureau of Labor and Statistics, employment for fine artists, musicians, and actors is projected to grow by 4% over the next ten years. This is on pace with the average percentage growth for all occupations. Given the large population of musicians in the area as part of the country music industry, the demand for musicians is ever-present within Middle Tennessee.

Future Career Prospects: The AFA in Fine Arts is designed as a Tennessee Transfer Pathway for students focused on the fine arts. Students who complete this program have a clear pathway to several programs in the Middle Tennessee area, including Middle Tennessee State University's School of Music, Tennessee Technological University's art program, Austin Peay State University's and University of Tennessee-Martin's theatre arts programs. Whether students go on to 4-year programs or enter into the workforce, there are opportunities for graduates to employ their skills in new careers within the Middle Tennessee region, including work in the country music industry, Frist Art Museum, and the numerous performing arts centers. This program's CIP code also aligns to SOC Code 27-1013, 25-1121, 27-2011, and 27-2042.

Percentage of Graduates Working in the Field: Each year, Motlow surveys its graduates when they complete their Exit Exam to gain insights on job placement for individual students. Of the 9 total graduates in the AFA in Fine Arts program since the program's inception since 2017, seven students responded to the survey. Four students are employed in unrelated fields, one pursued further educational opportunities, one is unemployed but seeking employment, and one is unemployed because of family responsibilities. Per survey responses, all of the respondents achieved their educational objectives at Motlow.

Community Outreach: As part of the AFA in Fine Arts program, the college hosts several events throughout the academic year. In 2022-2023, Motlow held a children's play in Fall 2022 with 14 individual performances. For those performances, 2,700 elementary students from the surrounding schools attended the play. In Spring 2023, a spring play was performed on three nights, and 600 community members attended. The music students also held five concerts during the 2022-2023 academic year with 800 attendees in total. Additionally, the art students participated in two separate art exhibits which hosted 400 guests. All of these areas of emphasis for the AFA in Fine Arts program participated in these important efforts to engage with the communities with the Motlow service area.

Optional: Provide a narrative concerning the health of the program.

While the pandemic impacted the initial growth for enrollment and graduate numbers, the college continues to work diligently to increase its enrollment and graduation numbers for the AFA in Fine Arts. The increased enrollment in the program indicates a renewed interest in this program, and the program leadership will continue to review and revise program content and quality as needed to ensure that students are successful in the program.

NASHVILLE STATE COMMUNITY COLLEGE

Fine Arts, Associate of Fine Arts (AFA)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The Tennessee State master plan for higher education focuses on the success of students, prosperity for Tennessee's families, and the workforce of the state. In addition, the state Drive to 55 goal of 55% of Tennessean's holding a post-secondary credential by 2025 will require a significant increase in graduates in order for the goal to be met (43% in 2019 according to the master plan). This program aligns with the state master plan for higher education by providing a low-cost option for students to earn a post-secondary credential, thereby improving prosperity for their family.

The mission of Nashville State Community College is to connect students, employers, and communities through personalized, high-quality, innovative educational experiences. The strategic plan provides a framework to eliminating inequities in education attainment and economic mobility in the communities we serve. This program aligns with the mission and strategic plan of the college by providing students with a high-quality and innovative educational experience that will further a graduate's path to economic mobility.

Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics,	

Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both	including at least two (2) from the metrics in bold .	x
Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>Student progress on learning outcomes and competencies is measured using a variety of formative and summative assessments at both the course and program level.</p> <p><u>Music Program Learning Outcomes:</u> Graduates of the program should be able to: Demonstrate competence in fundamental musical knowledge and skills through analysis, arranging, and part-writing. Demonstrate competence in fundamental musical knowledge and skills through analytical listening, sight-singing, dictation, and solfege. Demonstrate competence in fundamental musical knowledge and skills through analytical listening, keyboard orientation, and functional piano playing. Demonstrate competence in musical performance on his/her primary instrument with precision. Demonstrate the ability to work with others to accomplish the goal of preparing for and executing a musical performance. Demonstrate competence in fundamental musical knowledge by describing the music of various composers, and how it reflects the society of each time period.</p> <p>Course outcomes are defined in course syllabi and mapped to program outcomes. A common assessment was developed and administered to MUS 1030, Introduction to Music, in the 2021-2022 academic year. Results from the common assessment and other assessments and activities are used to evaluate learning outcomes and competencies. An exit exam was also developed and administered in the spring of 2022. This assessment is a general overview of the degree and measures the graduates' retention of material across all music courses. Faculty review outcome data as a mechanism to determine initiatives for the following year. This annual process ensures that the program is seeking continuous improvement in student outcome mastery over time.</p>				

Juried examinations measure student performance in Applied Lessons, and the music program administered juries in fall 2022. Program faculty assess student performance at multiple points throughout the semester. Weekly quizzes, activities, assignments, and performance observations are employed to assess progress on course outcomes and competencies. Students' proficiency in the outcomes and competencies is assessed at the end of the semester in each course by either a final exam or performance observation. Student learning at the end of the course is informally compared to prior knowledge and skills.

Program faculty develop and integrate low-stakes formative assessments so that students and faculty can more closely monitor student progress. Student performance is tracked, and timely feedback is provided to give students the best opportunity to succeed. This process keeps students regularly informed of their progress on learning outcomes and competencies. Many courses incorporate multi-attempt formative assessments to expediently identify areas in which proficiency has not yet occurred. This practice gives students additional opportunities to gain proficiency prior to completing higher stakes assessments. This is also the case with hands-on learning activities, projects, and performances. For example, the Jazz Ensemble performs portions of the recital mid-semester. The band is divided into two groups and while one performs, the other observers. After the performance, the performing and observing groups discuss strengths and areas to improve. The process is then repeated with reversed roles. This activity allows students to build performance experiences and perspectives in the safety of the rehearsal space without an audience.

Various student populations contribute to and support the music program. Alumni are continually active and regularly attend musical events. They also participate in rehearsals and performances. These alumni are professionals in the music industry or are currently attending a four-year institution. Having been through the program, they can relate to the students and share their experiences and expertise. Alumni participation in rehearsals and performances enriches the students' musical experience while providing an inspiring educational environment. In addition to participating in ensembles, alumni have also taught a series of percussion workshops, composed, and directed student musicals, hosted student organizations, and conducted clinics, master classes and performances. One alum leads the NSCC Kung Fu Society, which consists entirely of music students and music alumni. This group rehearses every day and has won dozens of state and national championships.

Current NSCC students are also very engaged in the program. Through the Jazz Ensemble, they participate in formal concerts, provide music for most campus events, provide music for events in the community, are featured in festivals and community performances, and perform alongside ensembles from neighboring four-year institutions. The program also provides students with leadership opportunities. In 2022 a group of students created an open-mic monthly series and learned valuable leadership skills by organizing student groups, scheduling facilities and rehearsal times, preparing music, creating programs, advertising, and running sound reinforcement. The music program supports the musical projects students are organizing outside of it, too. Students creating original music and working toward breaking into the industry are welcome to perform recitals of their material on the auditorium stage, or record demos in the NSCC studio in coordination with MST Studio I. This support provides professionalism to their projects and a foothold into the industry. Musical events on campus give students the chance to learn and enjoy music outside the classroom. Such events include clinics and masterclasses conducted by guest artists, and concerts performed by our community partners such as the Nashville Philharmonic Orchestra and Nashville Symphony Orchestra.

Program Efficiency				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	x
Costs/revenue		quantitative		
Enrollment		quantitative		x
Retention rates		quantitative		
Graduates		quantitative		x
Student credit hour production		quantitative		x
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The AFA degree in Music consists of 62 credit hours, which can be completed in four semesters. A semester with 15-credit hours currently costs \$2,363 in tuition in fees. A 16-credit hour semester costs \$2,401. A student can complete this program for \$9,528 in tuition and fees.

In September 2023 there were 43 students enrolled at Nashville State Community College who had declared the AFA degree in Music.

Eleven students graduated with the AFA in Music during the 2022-2023 academic year.

The following table shows student credit hours generated in MUS classes required for AFA in Music majors. This table does not show student credit hours earned in the general education MUS 1030 – Introduction to Music class.

	2018-2019	2019-2020	2020-2021	2021-2022	
# SCH in MUS (excluding general education MUS humanities courses)	496	454	490	375	

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	x
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		
Community outreach	partnerships, etc.	both		
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

In September 2023 there were 43 students enrolled at Nashville State Community College who had declared the AFA degree in Music. As of September 20, 2023 two students have applied to the college to begin in Spring 2024 with an intent to declare the AFA degree in Music. A fall start is much more common for this program.

Published jobs projections and career prospects for graduates of this program (data from EMSI Burning Glass)

Jobs/Professions	Median Salary	Annual job openings	Job outlook % (next 10yrs)
Musicians & Singers	\$27.30	112	5.9%
Music Directors & Composers	\$27.31	29	18.6%

The full-time music faculty member writes a grant each semester to fund the NSCC Guest Artist Series. This is the Faculty/Staff Grant awarded by the NSCC Foundation and usually amounts to about \$5,000 annually. The guest artists selected are usually world-renowned performers, Grammy winning artists, or musicians among the best in their field. The artists are committed to a full day with the students, which includes attending rehearsals, providing a clinic or masterclass, and finally performing alongside the students in an evening performance. The true value of these events is the opportunity for the student to experience a professional rehearsal and performance with an artist (Appendix 12- Grant Example).

A partnership with the Rockley Family Foundation (RFF) also helps fund the music program. The RFF has hosted two piano and string sales on our campus. The second of these sales took place in August 2022. As a result, \$43,985 in cash and in-kind donations has been raised for the NSCC music program in the following form:

A donation of a rental (lease) of a concert grand piano: \$36,990 value

Violin: \$1,995

Cash donation to the NSCC music department: \$5,000

The RFF also donated a \$10,000 violin to an NSCC music student volunteering for the event.

Hospitality Management, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>The Tennessee State master plan for higher education focuses on the success of students, prosperity for Tennessee’s families, and the workforce of the state. In addition, the state Drive to 55 goal of 55% of Tennessean’s holding a post-secondary credential by 2025 will require a significant increase in graduates in order for the goal to be met (43% in 2019 according to the master plan). This program aligns with the state master plan for higher education by providing a low-cost option for students to earn a post-secondary credential, thereby improving prosperity for their family.</p> <p>The mission of Nashville State Community College is to connect students, employers, and communities through personalized, high-quality, innovative educational experiences. The strategic plan provides a framework to eliminating inequities in education attainment and economic mobility in the communities we serve. This program aligns with the mission and strategic plan of the college by providing students with a high-quality and innovative educational experience that will further a graduate’s path to economic mobility.</p>				
Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x

Student/graduate satisfaction	NSSE, surveying, etc.	both		x
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Five students graduated in spring and fall 2022 with an AAS in Hospitality Management. An alumni survey was sent to them in September 2023. Of those five, only two students responded. Those two students reported that they were satisfied or very satisfied with all elements of their education. Questions are as follows:

Question 1 – How satisfied are you with the overall education experience you had at Nashville State?

Question 2 – Please respond to the following statements based on the education you received at Nashville State.

I demonstrate the leadership skills required to successfully lead a diverse workforce in the hospitality industry.

I understand the many different fields that make up the hospitality industry and the career opportunities available in those fields.

I understand the importance of creating an outstanding guest experience and how those experiences impact the success of the organization.

I demonstrate a basic understanding of future trends of the hospitality industry and the growing importance of technology in the industry.

Question 3 - Which of the following best describes your present employment situation?

Question 4 - Are you employed in the field in which you were educated?

Question 5 – What is your job title?

Question 6 - Have you received a job promotion since graduating from or attending Nashville State?

Question 7 - What is your current annual salary?

Question 8 - What is the name of the company that employs you?

Question 9 - Would you recommend Nashville State to other people?

Question 10 - Are you interested in working with the Hospitality Management program by participating in any of the following? Please check all that apply.

Question 11 - Do you have recommendations for improving the Hospitality Management program at Nashville State?

The Hospitality Management program will administer the Graduate Student Survey every two years. The Hospitality Management program will also administer a Graduating Student Survey with the program's Exit Exam. Prior to taking the Exit Exam, students will be required to complete the Graduating Student Survey.

Program learning outcomes are as follows:

Understand and demonstrate leadership skills required to successfully lead a diverse workforce in the hospitality industry.

Understand the hospitality industry umbrella of industry segments and types and corresponding career pathways.

Understand the importance of creating an outstanding guest experience and the impact on the success of the hospitality organization.

Demonstrate a basic understanding of metrics measuring hospitality success factors and applications, future trends of the hospitality industry and the growing importance of technology.

POs are assessed using an exit exam. Student mastery of outcomes for the 2022-2023 graduates are as follows:

Learning Outcome	Average Achieved Percentage
PLO 1	89.2%
PLO 2	88.3%
PLO 3	88.3%
PLO 4	83.3%

Nashville State has developed two committees within the Hospitality Advisory Board 1) Marketing & Recruiting, 2) Program Design & Development. The full Advisory Board meets in the fall and the committees will meet in the spring to provide recommendations. A second advisory board meeting will be held in the spring as actions may require.

Program Design- This sub-committee of the Industry Advisory board works with industry partners who provides input and direction for class and program design. There are different needs and expectations in the current generation. The goal is to identify best practices that will make hospitality more attractive against other industries. NSCC will work to help coordinate those needs in hospitality classes and programs that could lead to certifications and an AAS degree. An example is to identify an apprentice type approach for hospitality. Historically, apprentices only have applied to culinary. We are working to identify new approaches that NSCC can support with unique certifications that will stack to build technical certificates.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	x
Costs/revenue		quantitative		x
Enrollment		quantitative		x
Retention rates		quantitative		
Graduates		quantitative		
Student credit hour production		quantitative		

Student credits to faculty FTE ratio		quantitative	
Amount of external funding produced		both	
Faculty productivity		both	
Other			

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The AAS degree in Hospitality Management consists of 61 credit hours, which can be completed in four semesters. A semester with 15-credit hours currently costs \$2,363 in tuition in fees. A 16-credit hour semester costs \$2,401. A student can complete this program for \$9,490 in tuition and fees.

This program generates revenue through student credit hours and, because the program is online, costs are exclusively in salaries and benefits of faculty.

In September 2023, there were 19 students enrolled at the college with a declared AAS in Hospitality Management.

The following chart shows revenue (based on SCH) and costs (based on salaries) and demonstrates that the program has made money since 2020.

	2019-2020	2020-2021	2021-2022
# SCH in hospitality classes	98	264	472
Tuition and fee revenue (revenue)	\$16,072	\$44,088	\$80,712
Salaries and benefits (costs)	\$58,503.46	\$36,524.78	\$64,393.64
Revenue - costs	(\$42,431.46)	\$7,555.22	\$16,318.36

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	x
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		
Community outreach	partnerships, etc.	both		

Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

In September 2023, there were 19 students enrolled at the college with a declared AAS in Hospitality Management. As of September 20, 2023 an additional student has applied to the college to begin in Spring 2024 with an intent to declare the AAS degree in Hospitality Management. A fall start is much more common for this program.

Published jobs projections and career prospects for graduates of this program (data from EMSI Burning Glass)

Jobs/Professions	Median Salary	Annual job openings	Job outlook % (next 10yrs)
Hotel, Motel, & Resort Desk Clerks	\$11.93	200	-1.4%
First-Line Supervisors of Personal Service & Entertainment	\$19.36	54	18.5%
Receptionists & Information Clerks	\$14.71	42	13.2%
Lodging Managers	\$28.47	15	11.5%
Concierges	\$14.52	10	20.1%
Food Service Managers	\$24.83	6	11.0%

Are there other considerations not outlined above?

*Hospitality is one of the largest and fastest growing industries in Nashville & Tennessee. There are over 5,273 jobs currently available in the Nashville area as of 12/12/22 according to **Indeed** with over 120K hospitality workers.*

Paralegal Studies, Certificate

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>The Tennessee State master plan for higher education focuses on the success of students, prosperity for Tennessee’s families, and the workforce of the state. In addition, the state Drive to 55 goal of 55% of Tennessean’s holding a post-secondary credential by 2025 will require a significant increase in graduates in order for the goal to be met (43% in 2019 according to the master plan). This program aligns with the state master plan for higher education by providing a low-cost option for students to earn a post-secondary credential, thereby improving prosperity for their family.</p> <p>The mission of Nashville State Community College is to connect students, employers, and communities through personalized, high-quality, innovative educational experiences. The strategic plan provides a framework to eliminating inequities in education attainment and economic mobility in the communities we serve. This program aligns with the mission and strategic plan of the college by providing students with a high-quality and innovative educational experience that will further a graduate’s path to economic mobility.</p>				
Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x

Student/graduate satisfaction	NSSE, surveying, etc.	both	
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative	
Foundational skills	programmatic assessment of general education and/or major	both	x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both	
Other			

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job placement of graduates in 2021-2022 is 83%.

Program learning outcomes for this program are as follows:

Demonstrate a basic understanding of legal ethics and professional responsibility.

Explain the organization of the court system.

Draft legal documents under the direction of an attorney.

Conduct legal research and do legal writing.

Interview clients and witnesses to gather investigative information.

Use word processing and law related computer software.

Demonstrate a basic knowledge of procedural and substantive laws.

Use verbal and written communication skills effectively.

PLOs are assessed using an exit exam. Student mastery of outcomes for the 2022-2023 graduates are as follows:

The benchmark is presently set at 70.0. The overall exit exam results were 80.3/100 about 10 points higher than the benchmark.

Demonstrate a basic understanding of legal ethics and professional responsibility. 93.4/100

Explain the organization of the court system. 82.3/100

Draft legal documents under the direction of an attorney 82.4/100

Conduct legal research and do legal writing 83.1/100

Interview clients and witnesses to gather investigative information. 63.1/100

Use word processing and law-related computer software 95.4/100

Demonstrate a basic knowledge of procedural and substantive law. 79.4/100

Use verbal and written communication skills effectively. 73.7/100

The Paralegal Studies Certificate at Nashville State Community College is the only ABA approved certificate offered in Middle Tennessee. Our students have been offered positions by both the state and federal court systems, large corporations, large law firms, the Public Defender's Office, the District Attorney's Office, the United States Postal Service Office of General Compliance and even the Internal Revenue Service.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	x
Costs/revenue		quantitative		
Enrollment		quantitative		x
Retention rates		quantitative		
Graduates		quantitative		
Student credit hour production		quantitative		x
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		x
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The Paralegal Studies technical certificate is 24-credit hours and can be completed in two semesters at \$2,249 each in tuition and fees for a total of \$4,498.

In September 2023, there were six students enrolled in this technical certificate. While this number is small, the certificate is fully embedded in the AAS program with the same name that has 67 enrolled students. This Certificate is only open to students who currently hold a bachelor's degree from an accredited college or university within the United States. It is designed to be a short-term certificate in paralegal education for those who already have the benefit of a prior education. Due to the nature of the certificate, low enrollment numbers are to be expected, but students are enrolled in classes with AAS students, so individual class enrollments are robust.

Because technical certificate students are enrolled in courses along with AAS students, it is difficult to tease out student credit hours for the technical certificate alone. Because students from technical certificates and the AAS program enroll in the same classes, the college tracks all LEGL student credit hours in sum:

2019-2020 - 1,122 SCH

2020-2021 – 1,635 SCH
 2021-2022 – 1,698 SCH

The Director of Paralegal Studies wrote and requested a grant of \$1,000.00 for student memberships in paralegal organizations in 2019. It is interesting to note that of the fifteen (15) students who received the benefit of this grant in 2019, thirteen (12) graduated by the spring of 2022 or 80%. The Director of Paralegal Studies has also worked with the publisher of our textbooks to provide free library textbook editions for both the White Bridge Road and Clarksville Campus locations which averages about \$600 - \$1,800 a year in benefits to our libraries.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	X
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		
Community outreach	partnerships, etc.	both		
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

In September 2023, there were six students enrolled in this technical certificate. As of September 20, 2023 no additional students have applied to the college to begin in Spring 2024 with an intent to declare the technical certificate in paralegal studies. A fall start is much more common for this program.

Published jobs projections and career prospects for graduates of this program (data from EMSI Burning Glass)

Jobs/Professions	Median Salary	Annual job openings	Job outlook % (next 10yrs)
Paralegals & Legal Assistants	\$25.21	71	14.8%

Legal Secretaries & Administrative Assistants	\$22.35	28	-13%
Compliance Officers	\$27.05	22	3.5%
Title Examiners, Abstractors, & Searchers	\$24.22	16	2.6%
Legal Support Workers, All Other	\$27.44	9	-5.6%

Currently there is a need for paralegals within the legal community. As many law firms seek to reduce costs and increase revenue, the job outlook is expected to grow as paralegals may take the place of many attorneys. A quick search of indeed on 09/22/2022, revealed 87 job openings for paralegals in Nashville with an additional 10 in Clarksville and 118 job openings for a legal assistant in Nashville with an additional 8 in Clarksville. This search does not include the multitude of jobs offered internally through paralegal organizations, court and government job boards, or the attorneys who choose not to list with indeed.

Are there other considerations not outlined above?

The Paralegal Studies Department has formed connections with all the local paralegal associations and often gets information on employment opportunities within the industry. Recently, we were approached by the Internal Revenue Service Office of the General Counsel looking for several of our paralegals for open positions in Nashville. The Legal Aid Society routinely looks to our school to fill open positions. The various courts seek employees from our students as well as accepting interns. The Air Force also seeks to fill civilian legal positions with our students. We have several law firms that work with our students, accepting them as interns and hiring them upon graduation including but not limited to Bass, Berry, and Sims; Morgan and Morgan; Quintairos, Prieto, Wood & Boyer, P.A.; Meridian Law PLLC; Sherrard, Roe, Voigt, and Harbison among many others.

Retail Management, Certificate

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>The Tennessee State master plan for higher education focuses on the success of students, prosperity for Tennessee’s families, and the workforce of the state. In addition, the state Drive to 55 goal of 55% of Tennessean’s holding a post-secondary credential by 2025 will require a significant increase in graduates in order for the goal to be met (43% in 2019 according to the master plan). This program aligns with the state master plan for higher education by providing a low-cost option for students to earn a post-secondary credential, thereby improving prosperity for their family.</p> <p>The mission of Nashville State Community College is to connect students, employers, and communities through personalized, high-quality, innovative educational experiences. The strategic plan provides a framework to eliminating inequities in education attainment and economic mobility in the communities we serve. This program aligns with the mission and strategic plan of the college by providing students with a high-quality and innovative educational experience that will further a graduate’s path to economic mobility.</p>				
Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		x

Student/graduate satisfaction	NSSE, surveying, etc.	both	
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative	
Foundational skills	programmatically assessment of general education and/or major	both	x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both	
Other			

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

All graduates of the Retail Management technical certificate in the last two years have earned the credential while earning an AAS in Business. All technical certificate students have continued on to the next academic program.

Program learning outcomes for this program are as follows:

Think critically and be creative with retail business solutions.

Understand management functions and activities.

Apply management, marketing, communications, financial management, and business software skills to a retail environment.

The goal of 70% mastery of the PLOs is considered to be the minimum success rate and is assessed using a common assessment exit exam. Any student who declares graduation of an embedded certificate in the same term as an AAS in which the certificate is embedded is only given the common assessment for the AAS. While Nashville State believes in the efficacy of the technical certificate in Retail Management as a stand-alone credential, no student has graduated with this technical certificate alone in the last two years so no data on PLO mastery is available except at the AAS level.

The BUSN program strategic plans are directly linked to the institution's mission and Vision 2030. Planning in the program is all-inclusive involving input from faculty, staff, students, and other stakeholders. Based upon the NSCC mission and strategic plan, as well as constituent feedback, the division identifies short- and long-term objectives; assesses whether it achieves these outcomes; and provides evidence of improvement based on analysis of those results.

The dean's office develops division-wide initiatives derived from the college's mission and Vision 2030. The BUSN program develops objectives in support of the division's strategic plan and adds objectives consistent with their needs.

Faculty members and the program coordinator then determine the implementation strategies or tasks associated with the objective, the resource needs for achieving the objective, and criteria for determining successful achievement of objective. The faculty utilize their teaching experience along with

years of business experience to analyze potential initiatives. These initiatives are submitted to the BUSN Advisory Committee and/or constituents for discussion and approval. The BUSN program plan contains objectives and assessment measures to use for evaluating results. Assessment results are used in closing the assessment loop to assure continuous improvement.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	x
Costs/revenue		quantitative		
Enrollment		quantitative		x
Retention rates		quantitative		
Graduates		quantitative		
Student credit hour production		quantitative		x
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		x
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The Retail Management technical certificate is 24-credit hours and can be completed in two semesters at \$2,249 each in tuition and fees for a total of \$4,498.

As of fall 2023, only two students are enrolled in this technical certificate. However, this technical certificate is embedded within the Marketing and Retailing Concentration within the AAS degree in Business, so we anticipate that many more than two students will earn this technical certificate as a stackable credential during their pursuit of their AAS.

Because technical certificate students are enrolled in courses along with AAS students, it is difficult to tease out student credit hours for the technical certificate alone. Because students from technical certificates and the AAS program enroll in the same classes, the college tracks all BUSN student credit hours in sum:

2019-2020 – 7,233 SCH

2020-2021 – 7,191 SCH

The Retail Management Program began in the Spring 2017 through the impetus of a three-year, \$2 Million *Walmart Foundation Brighter Futures 3.0* grant project involving 12 selected Community colleges east of the Mississippi River including NSCC. The grant’s purpose, administered through the *League for Innovation in the Community College*, was to develop and expand the implementation and awarding of the *Western Association of Food Chains’ (WAFC) Retail Management Certificate (RMC)* credential as a means of accelerating the career mobility for Incumbent Retail employees and to enhance each Community Colleges’ mission to serve its community’s workforce needs. The program would provide employees with the higher-level knowledge and skills needed to get started or advance their career in the retail industry.

NSCC’s prorate share of the overall grant was \$200,000 split between marketing, curriculum, and administrative funding (\$100,000) and tuition allowance funding (\$100,000) to attract and kick-start participation (and eventual full funding) of this educational benefit program by major retailers for their incumbent employee population. A program director, responsible for administration and promotion, was hired through the grant.

The RMC program’s online, 8-course, 24-credit-hour, curriculum including course outcomes, was specified by the WAFC and Brighter Futures 3.0 grant. NSCC offered 7 of the 8 required courses and had 75% of the required course outcomes. The remaining course, *Retail Management*, was developed and submitted for curriculum committee and TBR approval. Additionally, the 8 certificate courses were embedded into the AAS Business Degree creating the concentration in Marketing and Retailing.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		x
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		
Community outreach	partnerships, etc.	both		x
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Published jobs projections and career prospects for graduates of this program (data from EMSI Burning Glass)

Jobs/Professions	Median Salary	Annual job openings	Job outlook % (next 10yrs)
Customer Service Representatives	\$17.86	1,138	6.7%
General & Operations Managers	\$52.33	405	12.9%
First-Line Supervisors of Retail Sales Workers	\$21.04	336	3.3%
Project Management Specialists & Business Operations Special	\$30.02	161	10.9%
Sales Representatives, Wholesale & Manufacturing,	\$25.97	128	6.6%
Personal Service Managers, All Other	\$34.71	78	9.7%
Market Research Analysts & Marketing Specialists	\$29.48	75	31.9%
Sales Managers	\$54.83	44	11.2
Marketing Managers	\$53.81	37	17.8%

The Business programs actively seek relationships with employers and the community. In addition to the advisory committee, input from local business and a diversity of industry organizations is sought when developing new or modifying existing programs. Meetings with these stakeholders are held to determine specific employer needs and receive curriculum and program feedback.

This retail certificate is an example of a community/employer partnership. The Business program partnered with Kroger and the Western Association of Food Chains to assess local employer requirements in retail and determine how to fulfill those needs. As a result of this partnership, the Retail Management Certificate was created. Discussions with potential partners for the certificate are continuing to be held with businesses throughout the region. For example, meetings have recently been conducted with CVS Pharmacy and Mapco Express.

Are there other considerations not outlined above?

Embedded certificates often appeal to have low enrollment because students who earn the technical certificate as a stackable credential within an AAS seldom declare the technical certificate as a secondary credential to the AAS. In addition, the costs of offering these certificates is negligible due to the fact that students take classes along with AAS students and faculty do not exclusively teach these students.

ROANE STATE COMMUNITY COLLEGE

Financial Services, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

State Master Plan Alignment:

The development of the Financial Services program aligns with the Tennessee Higher Education Commission’s mission to be relentlessly focused on increasing the number of Tennesseans with a post-secondary credential. With many individuals looking to start a career or seek additional training to enhance their position in the financial services business sector, the Financial Services Program provides a pathway of entry or advancement within this dynamic business field.

Institutional Alignment:

Roane State’s mission is to improve the lives of individuals through the transformative power of education and to build thriving communities through partnerships for strengthening economic development. The Financial Services program was designed to meet the need of, and in collaboration with, banking partners (as described in more detail later in this report).

Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	X
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

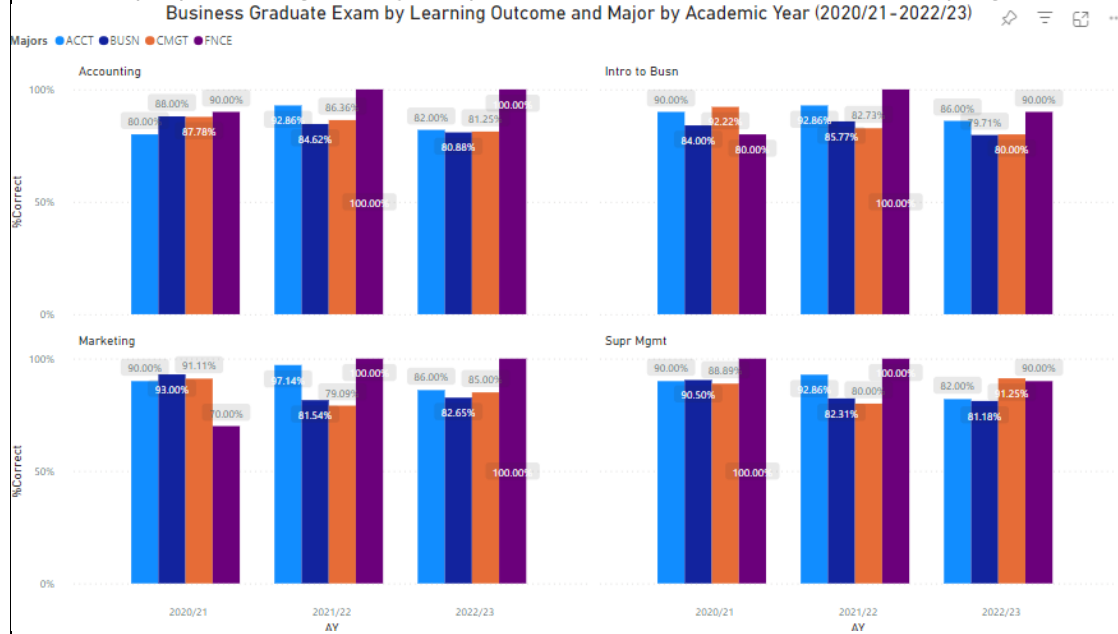
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job placement or enrollment in the next academic program: More than half of program graduates have confirmed their employment or further education.

The placement data for the program is summarized below.

Year	Graduates	Placed	Continuing Education	Not Placeable (Family, health, military service)	Unable to contact
2020	1	1	0	0	0
2021	1	1	0	0	0
2022	2	1	1	0	0

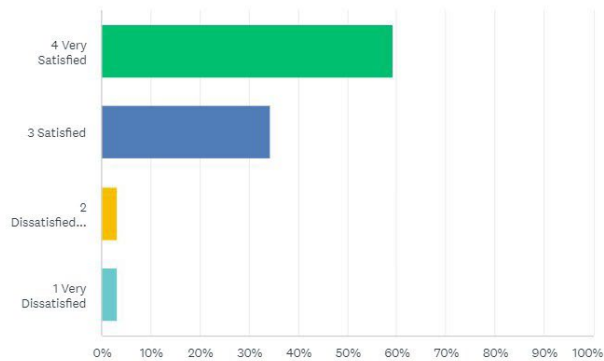
Assessment and program evaluation measures: Graduating students take an exit exam aligned with student learning outcomes. The below chart provides a summary of student performance by program within the business department based on learning outcome areas. The Financial Services students (purple) have generally out-performed students in other business programs.



Student/graduate satisfaction: Roane State sends a graduate satisfaction survey to all graduates of Business programs. Of the 32 responses summarized below, two were from the Financial Services program. Both respondents rated their overall satisfaction as 3 or above. In general, nearly all students in a Business program are satisfied.

How satisfied are you with the educational experience you had at RSCC?

Answered: 32 Skipped: 0



ANSWER CHOICES	RESPONSES
4 Very Satisfied	59.38% 19
3 Satisfied	34.38% 11
2 Dissatisfied	3.13% 1
1 Very Dissatisfied	3.13%
TOTAL	32

The college additionally uses the IDEA survey to collect student feedback on courses and ensure that students are satisfied with the quality of instruction that they receive in the program. The IDEA survey is a validated survey instruments that produces overall course evaluation rating adjusted based on course size, student response to questions about their interest in the course, and motivation. The most recent course level satisfaction for courses with a sufficient sample size is provided below. As the data show, students are very satisfied at the course level, rating the course 4.1 out of 5.

Division (All) Subject (All) Responded (All)

Scale is 1-5:
1=False, 2=Mostly False, 3=In Between, 4=More True than False, 5=Defintely True

Short Course	Excellent Teacher Raw	Excellent Teacher Adjusted	Excellent Course Raw	Excellent Course Adjusted	Summary Eval Raw	Summary Eval Adjusted
FNCE 1330	4.5	4.4	4.5	4.2	4.2	4.1
Grand Total	4.5	4.4	4.5	4.2	4.2	4.1

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				X

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: The chart below shows enrollment for 2022-23.

Program Enrollment	
Term	Program Enrollment (Distinct <i>n</i>)
Summer 22	1
Fall 22	4
Spring 23	4
Total	5

Retention Rate: The chart below shows the retention rates for Fall 2022-23.

Retention for First Time Students - Fall22 to Fall23 (Financial Services)		
Fall 22	Fall 23	Fall22 to Fall23 Retention Rate
2	1	50.0%

Graduates: Four students have graduated from the Financial Services program since 2020.

Year	Graduates
2020	1
2021	1
2022	2

Other: It should also be noted that there is very little incremental cost associated with this program. With one exception, all courses would be retained in the course library if this program were to be eliminated. The Financial Services courses are excellent electives for students enrolled in other business degree programs.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold.	
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		X
Community outreach	partnerships, etc.	both		X
Employment rate upon graduation		quantitative		X
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand:

Source: Lightcast Labor Market Data Projections for Specified Majors and Occupations Over the Next 10 Years. Financial

Services Major Summary:

Based on 2022 reporting, there were just over 1,600 potential openings in the Roane State Community College service area that could be filled by financial services program graduates. While this number of openings and monthly demand is generally lower than the national average for an area of similar size, financial services related opportunities are expected to grow over the next 10 years by roughly 29% in the RSCC service area. Projected growth in this job field for the RSCC service area is above the national average growth rate (17%) in the next 10 years for an area of similar size.

Percentage of graduates working in the field: Of the 4 graduates over the past three year, 75% (3/4) were working in their field after graduation. One was pursuing additional training.

Community Outreach: The Financial Services degree was developed in cooperation with the management team at ORNL Federal Credit Union with additional input from the local branch manager of Pinnacle Financial Partners who also serves as an adjunct faculty in the program. The goal was to develop a program that equips students with the skill set needed to compete for jobs and/or enhance job skills for current employers within this dynamic business sector. We continue to work with other financial consultants within the local service area to enhance the offerings within the program to ensure we are meeting the needs of this changing business sector.

Employment Rate: All, 100%, of students that were placeable and responded to the employment survey were employed or continuing education. (One student was pursuing an additional degree).

Are there other considerations not outlined above?

The enrollment numbers for the Financial Services program continue to fall below expected projections. This is due in large part to the COVID-19 pandemic. Leading up to 2020, there was an increased program enrollment as shown in the table below.

Term	Student Enrollment
Fall 2018	11
Fall 2019	15
Fall 2020	14

Shortly after the program was created, the program's lead faculty went on a sabbatical to pursue an advanced degree. After that came the shutdown of the college resulting from the COVID pandemic. Following this, the lead faculty left teaching to pursue other opportunities in the finance business sector.

Post-Covid, we have had the opportunity to enhance our in-school recruiting program, building relationships with the high schools in our service area. There has not been enough time to determine what impact this renewed recruiting effort will have on the program.

While student recruitment remains a challenge, with our new focus on recruiting, we are making excellent contacts in the high schools with guidance counselors and students in the service area to highlight all our business programs including the financial services program. This enables us to provide information regarding the evolving program to meet the needs of the dynamic business sector.

This program continues to have the potential that was behind the driving force that led to its initial development. We worked with our business partners in the financial services industry to stand up the program. With our renewed initiative to work with high schools, we will continue to renew and grow relationships with service area business partners to continue to grow the program.

Medical Informatics, Associate of Applied Science (AAS)

Programmatic Alignment				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				
Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.				
<p>It is the mission of Roane State to provide career education for Associate of Applied Science degrees for graduates to enter the workforce. It is also the mission of Roane State Community College to meet the needs of the counties we serve with a delivery of health science programs. The Medical Informatics degree provides students with the knowledge needed to enter the workforce in the healthcare IT area. There are three options to choose from when completing the Medical Informatics degree. Students can select either a developer track, technician track, or cyber security depending upon which area best suits them. Each of the tracks also requires several core computer classes that ensure the students are getting a well-rounded education. It is important to note that this program is primarily online to better meet the needs of the students. This program ensures quality online learning for the students in a computer/health science program ensuring we are in alignment with the THEC master plan for higher education.</p>				

Student Success and Outcomes				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	X
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

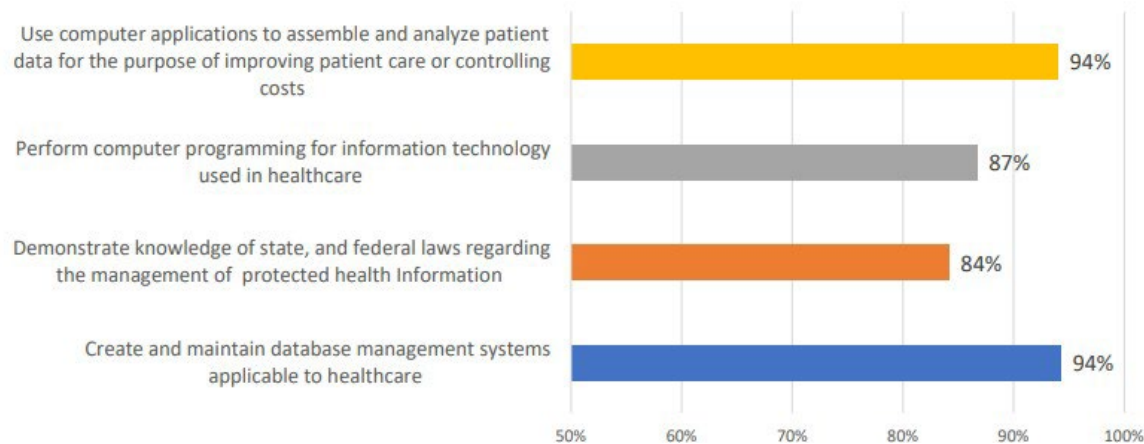
Job placement or enrollment in the next academic program: More than half of the program graduates have confirmed their employment or further study with the program. The program was unable to get responses from 3 of the 7 program graduates.

The placement data for the program is summarized below.

Year	Graduates	Placed	Continuing Education	Not Placeable (Family, health, military service)	Unable to contact
2020	5	2	1	0	2
2021	2	1	0	0	1
2022	0	0	0	0	0

Assessment and program evaluation measures: Graduating students take an exit exam aligned with the student learning outcomes. Students have performed well on this exam, indicating that students in the program are achieving the learning outcomes. As the data demonstrates, students scored above 80% on all learning objectives. The average score for using computer applications and maintaining databases was over 90% on two of the four objectives. A summary of the results are provided below:

Informatics Graduate Exit Exam Outcomes by Learning Objective (N=5)



Student/Graduate Satisfaction: The college uses the IDEA survey to collect student feedback on courses and ensure that students are satisfied with the quality of instruction that they receive in the program. The IDEA survey is a validated survey instruments that produces overall course evaluation rating adjusted based on course size, student response to questions about their interest in the course, and motivation. The most recent course

evaluations for the required core of courses in the Informatics program showed that students are relatively satisfied with the instruction that they are receiving. The mean score (on a five-point scale) for all courses was a 3.6. Students were generally more satisfied with their Health Information Management coursework than their computer programming courses.

2022-2023 MINF Course Evaluations Scale is 1-5:
1=False, 2=Mostly False, 3=In Between, 4=More True than False, 5=Definitely True

Short Course	Excellent Teacher Raw	Excellent Teacher Adjusted	Excellent Course Raw	Excellent Course Adjusted	Summary Eval Raw	Summary Eval Adjusted
CITC 1300	3.8	3.4	3.4	2.7	3.5	3.1
CITC 1301	3.3	3.5	3.5	3.6	3.6	3.7
HIMT 1300	4.7	4.6	4.4	4.3	4.1	4.0
HIMT 1303	4.7	4.7	4.3	4.3	4.1	4.1
HIMT 1301	3.8	4.0	3.8	3.9	3.4	3.6
Grand Total	4.1	4.0	3.9	3.7	3.8	3.6

Program Efficiency				
Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				X

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: Four distinct students were enrolled in 2022-23.

Retention Rate: Of the four students enrolled in Spring 2023, one graduated and 3 students were retained in the program in fall 2023, resulting in a 100% retention rate.

Term	Distinct Count of Medical Informatics Majors Enrolled
Summer 22	3
Fall 22	
Spring 23	4
Total	4

Graduates:

Year	Graduates
2020	5
2021	2
2022	0
2023	1

Other: It is important to note that there are essentially no budgetary costs associated with this program. Each course in the Medical Informatics degree is also taught within other degree programs at the college, apart from one 2-credit hour course. Since the inception of the medical informatics degree, the program has been embedded within the Health Information Management (HIM) degree for the advisory committee. In spring 2024, the medical informatics degree will have its' own advisory committee with a focus on improving the program and promoting it more with the community.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold.	
Employer demand		Both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	Qualitative		
Percentage of graduates working in the field		Quantitative		X
Community outreach	partnerships, etc.	Both		
Employment rate upon graduation		Quantitative		X
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand:

Source: Lightcast Labor Market Data Projections for Specified Majors and Occupations Over the Next 10 Years.

Based on 2022 reporting, there were just over 3,100 potential openings in the Roane State Community College service area that could be filled by medical informatics program graduates. Number of openings and monthly demand is generally higher than the national average for an area of similar size.

Percentage of graduates working in the field: Of the 7 graduates over the past three year 43% (3/7) were working in their field after graduation. One was pursuing additional training, and three did not respond to the employment survey.

Employment Rate: All, 100%, of students that were placeable and responded to the employment survey were employed.

SOUTHWEST TENNESSEE COMMUNITY COLLEGE

Health Sciences, Associate of Applied Science

Programmatic Alignment

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		x
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Alignment with state master plan for higher education: This degree aligns with the State's strategic plan on two major foci points a) the drive to 55 and b) stackable credentials. This AAS Health Sciences Degree allows graduates to complete a credential that can be used to advance employment opportunities within current health related fields. The degree offers advanced placement for students who have earned a health care credential but not a degree. Students selecting this option develop a solid enhancement in health care communication and information analysis. Completers may also use this degree to pivot another health care field. Degree completers may increase earning potential through advancement or job promotion, within certain health care sectors.

Alignment with institutional mission and strategic plan: In the Focus 2025 Strategic Plan for SWTCC one focus is on students, specifically in removing barriers and ensuring students leave equipped for the changing workforce. Healthcare requires a higher level of communication and data analysis skills at all levels. The AAS Health Sciences degree helps equip completers with essential skills required of all health-related career employees. SWTCC recognizes the wide swath of skills needed to work effectively in today's health care sector and this degree helps bolster that skills set.

Program is needed to support another program: This degree also helps students who have earned a sizable number of credits obtain a college degree. The Southwest Workforce Solutions Center of Excellence promotes seamless transfer from workforce to academic credit learning. The AAS Health Sciences degree is positioned to become a pathway for students who have completed workforce training to move into a degree pathway that can bolster their learning and earning potential.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	Capstone outcomes	Both		x
Student/graduate satisfaction	NSSE, surveying, etc.	both		
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		x
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job placement or enrollment in the next academic program: The program does not have sufficient data on this metric. The new measure will be to determine the number of students who enroll in the degree program, earn a credential in the first year and continue to complete the degree. Students enrolled in the program will be traced as a cohort semester over semester and job placement data will be determined by those employed by two sets of metrics, one for non-credentialed students and the other for students who enter the program in the traditional format.

Assessment and program evaluation measures: A significant evaluative tool about student success involves assessment of student learning at the end of the program. In the AAS Health Sciences program the capstone course assessment demonstrate student success at the levels noted in the chart below.

End of Program SLO	Assessment Tool	Metric	Achievement
Apply organizational theory to health care management.	Capstone Course Case Study Assessment	80% of students will achieve a score of 80% or higher	79.5% at level – AY 21-22 62% AY 20-21
	Capstone Final Paper	80% of students will achieve a score of 80% or higher	82% at level – AY 21-22 80% at level AY 20-21

Analyze the dynamics of situations and apply effective leadership styles to motivate individuals, enhance organizations' performance, and achieve stated goals.	Discussion post in Management course	80% of students will achieve a score of 80% or higher on this assessment	60% at level – AY 20-21 65% at level AY 21-22
Analyze the dynamics of situations and apply effective leadership styles to motivate individuals, enhance organizations' performance, and achieve stated goals.	Capstone Final Exam	80% of students will achieve a score of 80% or higher on the final exam	50% at level – AY 21-22 80% at level - AY 20-21

Foundational skills: This degree uses the student’s current work environment to further develop essential leadership skills. In the capstone courses there are learning activities and assessments that address writing skills, critical analysis and application of ethical principles. The data set reflected above identifies assessment tools of the final paper, case study and discussion posts which are used to assess these foundational skills.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment	# Enrolled per AY	quantitative		X
Retention rates	Retention from Fall to Fall	quantitative		X
Graduates		quantitative		
Student credit hour production	Total student cr hr/term	quantitative		X
Student credits to faculty FTE ratio	Student cr hr / faculty FTE	quantitative		X
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

The cost associated with operating the program are minimal supporting the discussion to build and grow the program. The chart below depicts enrollment over two years and retention rates from fall to fall in the program. Student credit hour production is calculated by total number of credits per term and the faculty FTE ratio is calculated based on the total credits produced by students.

The data above displays students enrolled in ALHS 2311, 2312, 2313, and 2314 courses in Fall 2021 and Fall 2022. Of the 21 students in Fall 2021, 7 students returned for Fall 2022. Of the 13 students in Fall 2022, 5 returned in 2023. There were 3 faculty members for these courses so total credit hours were divided by 3.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		x
Percentage of graduates working in the field		quantitative		x
Community outreach	partnerships, etc.	both		x
Employment rate upon graduation		quantitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Future career prospects: As the degree program re-aligns and looks for new opportunity, offering the AAS in Health Sciences degree can help bridge military veterans into health-related careers as they transition back to civilian status. Often military personnel have some kind of medical training that does not readily align with occupations they may seek after military service. This degree will offer a pathway to degree attainment by allowing PLA for some of those health and medical related skills. As SW continues to strengthen its position as the mid-south's leader in meeting workforce needs, this degree helps the college leverage community partnerships to deliver highly qualified personnel with the ability to elevate their companies and grow personally.

Enrollment data is a good predictor of employment rate since most entering this degree already have some healthcare experience.

Enrollment			Graduation			
Year	Actual	Retention	Year	Rate	Actual	% Attainment
2020		46.9%	19-20		3	
2021		40%	21-22	20	1	5%
2022	53		22-23	9.4%	4	
2023	16					

Percentage of graduates working in the field: Most students entering this degree option already have some sort of technical training and are currently working.

One hundred percent (100%) of students achieving this degree prior to FA2023 were eligible to work in a healthcare related field. SW does not have data that demonstrates which program completers were already working or if they achieved a promotion/advancement upon completion. This data is needed to make more informed decisions about the program and will be attained going forward.

Community Outreach: As SW more fully engages community partners this degree option may prove pivotal in creating pathways for encumbered workers, and opportunities for organizations to upskill their current talent pool. The program is working to establish these partnerships in particular working in conjunction with the Southwest Workforce Solutions Center.

Are there other considerations not outlined above?

As outlined in the productivity report of 2022 the department identified opportunities to increase enrollment. The college has new leadership at the VPAA position and additional supports offered to the department to more effectively help recruit students into the program. One strategy that will be employed over the next academic year is a remodel of how to enter the program. SW has added several embedded technical certificates into the AAS Health Sciences degree. The division anticipates adding additional certificates to respond to industry need in over the next two years. Embedded certificates will allow students to declare the AAS-Health Sciences degree and earn the technical certificate on the way to completing the degree.

Optional: Provide a narrative concerning the health of the program.

While the program is struggling currently, there is a great opportunity to demonstrate value for both students and the college with continuing the program. The cost to administer the program is not great as most of the courses are offered online and there is no overhead costs associated with equipment or other special needs for the program to run.

Fine Arts, Associate of Fine Arts (AFA)

Programmatic Alignment

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	X
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		X
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Alignment with State Master Plan for Higher Education: The AFA in Fine Arts program aligns with the State Master Plan for Higher Education’s goal to “increase completion rates and the number of degrees conferred in pursuit of the Drive to 55.” In addition to the AA, AS, AST, and AAS degrees, the AFA provides another avenue for students inclined toward the fine arts to complete a credential.

Alignment with Institutional Mission and Strategic Plan: Southwest’s number one strategic plan goal is “Focus on Students”. We are committed to removing unnecessary institutional barriers to student access and success. We are devoted to providing a seamless educational experience that provides equitable and intentional academic and wrap-around support services to our diverse learners. Upon completion of their studies, our graduates will enter a four-year university or the workforce, equipped with the tools needed to succeed. The AFA in Fine Arts program prepares our students to transfer to a four-year university or enter the workforce by providing a transfer curriculum and exposure to performing arts. Additionally, two of the college’s strategic plan outcomes include ‘increasing the number of associate degrees awarded’ and ‘improve access and success for our students’. This academic program fulfills both of these outcomes.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	
Assessment and program evaluation measures	dependent on institutional assessment plan; likely major field test, CCTST, etc.	both		X
Student/graduate satisfaction	NSSE, surveying, etc.	both		X
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		
Foundational skills	programmatic assessment of general education and/or major	both		X
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Assessment and Program Evaluation Measures: The AFA in Fine Arts-Theatre requires students to complete required core courses for both of the programs: Theatre Design-Tech and Theatre Performance. For the Theatre Design-Tech area of emphasis, students must complete THEA 1015, 1025, 1030, 1040, and for most students 2015 and 2025. For these courses, the overall course success rate of the classes that were offered and made was 80% in 2022-2023. For the Theatre Performance area of emphasis, students must complete THEA 1015, 1025, 1030, 2015, and for most 1040 and 2025. The course success of the classes that ran was also 80%. These courses require students to demonstrate mastery of the following program learning outcomes: 1) Analyze form of cultural and creative expression 2) Explain humanistic and/or artistic expression. 3) Explore global/cultural diversity. 4) Recognize the ways in which both change, and continuity have affected human history. 5) Practice the critical and analytical methodologies. The Program Coordinator and departmental faculty with the guidance of the Advisory Board continue to review assessments to determine opportunities for continuous improvement in support of program growth and student success.

Student/Graduate Satisfaction: Results from the Student Evaluation of Teaching (SET) for 2022-2023 academic year shows students ranked the courses, instructors and program high with a 4.30 out of 5. The strongest comments from the students, compared to the past two years, was that the classes were in person and that the hands-on experience was much more beneficial. The ranking and comments from this past year are encouraging

that the program is on the rebounded from the pandemic now that we are conducting more classes on ground.

Foundational Skills: As part of the general education assessment of courses required for the AFA in Fine Arts, the college regularly monitors success rates. Students in the AFA in Fine Arts program must complete ENGL 1010, ENGL 1020, THEA 1030 and COMM 2025, as well as other general education courses. The Composition I and II and the Fundamentals of Communication course provide a foundation for the programs learning outcomes that requires students who graduate with the AFA in Fine Arts to “communicate effectively orally and written.” For the 2022-2023 academic year, students enrolled in COMM 2025 had a course success rate of 74%, and students in ENGL 1010 had an overall success rate of 68%. For ENGL 1020, the overall success rate was 76%. These percentages, which were calculated using end of course evaluation’s, demonstrate continued success in the courses required for the AFA in Fine Arts program.

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an “x” the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		
Graduates		quantitative		X
Student credit hour production		quantitative		
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		X
Other				X

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: Community colleges have experienced a decline in enrollment across the board which has impacted growth in enrollments in AFA, which has in turn impact awards. Southwest and it’s AFA program is no exception. Even though our enrollment has not reached our set benchmark it did increase by one. In a continuous effort to improve enrollment in the Associate of Fine Arts program we have increased our recruitment activities by attending college fairs at local high schools and area events, including participating in the Rising Senior Career and Job Fair and the Memphis Area College Night in Fall 2022 and Fall 2023. Additionally, we initiated conversations with our dual enrollment office to increase dual enrollment course offerings in this program. We had developed a partnership with Mt. Pisgah Middle School in Fall 2022. This school was planning to expand their grade

levels to include high school students that would be enrolled in their early college high school program. These students would then have the opportunity to earn their AFA degree while simultaneously earning their high school diploma. The implementation was scheduled for Fall 2023, which would have significantly increased the enrollment in our AFA program. However, Mt. Pisgah made the decision to discontinue with their initial plan to expand their grade levels to high school. We are currently in discussion with Medical District High School (which is housed on the college's Union Ave. campus) to offer dual enrollment Theatre courses to their high school students.

Graduates: Even though our graduation rate has not reached our set benchmark we did have one graduate in 2022-2023. In an effort to improve graduation rates in the AFA program, the program began a collaborative internship program with the University of Memphis where students in their Theatre program intern in our program during the Summer. We hope to expand this collaboration where our students will intern on selective productions with University of Memphis students and local theatre companies. We believe that this collaborative effort will increase student retention, graduation, and transfer for the AFA program.

Faculty productivity: Even though the AFA Theatre Program Coordinator had the 18-hour graduate level credentials to manage the Theatre program he continued his Faculty Development and received his MFA in Theater Arts to better support the program. With his continued studies came additional contacts in the industry in which benefited the program. With these contacts came a stronger Advisory Board and the potential of collaborative arrangements with the numerous theatres in the Memphis and Mid-south area as well as the University of Memphis.

Other: As the original intent of the AFA degree has not changed; it still supports a more marketable and easily understood path to the Bachelor of Fine Arts (BFA) degree programs at universities. Admissions into some BFA programs are competitive and based on auditions, the AFA in Fine Arts allows students to enroll in more discipline-specific courses and enable the student to develop their craft before transferring into the 4-year school. Also, as native students typically spend more time in discipline-specific courses in their first two years than other majors, students are more major-ready for their program. This is specifically relevant as Southwest students that go on to a four-year university in the Theatre Arts transfer to the University of Memphis. Additionally, the AFA is intertwined with other TTPs in Fine Arts that award an AA or AS degree, often with as little distinction as 6 credit hours of foreign language. For example, the Theatre Arts TTP when offered as an AA but not an AFA requires 6 hours of foreign language. As the BFA typically does not include a foreign language requirement, maintaining the AFA ensures students are not taking classes they don't need so it saves their financial aid and decreases time to degree.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand	student surveying, other metrics	both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		X
Future career prospects	skills mapping/CIP to SOC alignment and outcomes	qualitative		X
Percentage of graduates working in the field		quantitative		
Community outreach	partnerships, etc.	both		

Employment rate upon graduation		quantitative	
Other			X

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Employer Demand: According to the U.S. Bureau of Labor and Statistics, employment for actors is projected to grow by 4% over the next ten years. This is on pace with the average percentage growth for all occupations. Lightcast job data reflects a total of 1,818 job opportunities were available in this field in 2020 with a projected growth of job opportunities to 2,294 by the year 2033 (81% change). Between September 2022 and August 2023 there were a total of 620 job postings. The State Supply and Demand 2023 report, under Cluster Eleven, there were 155 graduates in the fields of Performing and Theatre Arts with an average of a 46% employment in Tennessee.

Future Career Prospects: The AFA in Fine Arts is designed as a Tennessee Transfer Pathway for students focused on the fine arts. Students who complete this program have a clear pathway to several programs in the Mid-South, including University of Memphis, Austin Peay State University's and University of Tennessee-Martin's Theatre Arts programs. Whether students go on to 4-year programs or enter into the workforce, there are opportunities for graduates to employ their skills in new careers within the Memphis/Mid-South region, including work in the numerous performing arts centers: Theatre Memphis, Playhouse on the Square, Hattiloo and the Orpheum Theatre.

Other: Memphis is noted for its artistically rich environment. The city boasts a unique environment where art, theatre, and music are part of the fabric of the community and culture. Its 10 Performing Arts Centers give our AFA students avenues to use their knowledge and experience acquired through the Theatre program. Many of our students have performed in these venues and from their have gone on to higher levels of achievement out of the Memphis area as well. These Performing Arts centers need talent, and our AFA program can provide that talent as it grows.

Optional: Provide a narrative concerning the health of the program.

While the Theatre industry is still feeling the effects of the pandemic in the Memphis area, which directly impacts our program, we have begun to see an increase in interest in our program. Additionally, because of the growing interest in the musical theatre area, we plan to collaborate with our music program to offer additional music electives in the AFA program. The college continues to support the renovations to the Theatre that were reported in the 2022 report, and the first phase of the renovations are projected to be completed by the end of the fall 2023 semester. These renovations include remodeling the control booth, sound system and establishing a storage area for theatre props. Future renovations will include remodeling the stage, and backstage areas including the dressing rooms.

Funeral Services Education, Associate of Applied Science (AAS)

Programmatic Alignment

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Alignment with state master plan for higher education	Alignment Statement	qualitative	Campuses should provide information demonstrating how the program aligns with institutional mission and strategy, but also with state, national, and global priorities. At least two (2) metrics must be addressed and both metrics in bold must be addressed.	x
Alignment with institutional mission and strategic plan	Alignment Statement	qualitative		x
Program is central to the identity of the university	Alignment Statement	qualitative		
Program is needed to support another program	Alignment Statement	qualitative		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Alignment with state master plan for higher education: This degree aligns with the State’s strategic plan with the focus of “Drive to 55”. The AAS in Funeral Services Education Degree helps to meet this metric. The program has witnessed an increased interest from young students and offers a pathway for those who are working in funeral homes a financially manageable pathway to learning additional skills and obtaining a degree.

Alignment with institutional mission and strategic plan: In the Focus 2025 Strategic Plan for SWTCC one focus is on students, attaining credentials that lead to high wage employment. The AAS in Funeral Services Education supports that focus of the strategic plan. Embalmers, morticians, and other funeral services workers can enter the workforce with salaries over 50,000.00 dollars while funeral home managers/directors earn over \$70,000.00. This career continues to grow according to the Bureau of Labor Statistics and the program is well positioned to positively impact the mid-south with graduates.

Student Success and Outcomes

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Job placement or enrollment in the next academic program	employment data as reported to the accrediting agency	quantitative	Campuses must present quantitative and/or qualitative data from three (3) metrics, including at least two (2) from the metrics in bold .	x
Assessment and program evaluation measures	End of program evaluations	both		x
Student/graduate satisfaction	NSSE, surveying, etc.	both		
Licensure/certification pass rate	passage rates: certifications, licensures, major field tests	quantitative		x
Foundational skills	programmatic assessment of general education and/or major	both		
Transfer outcomes	Transfer rate; grad rate/time to completion after transfer	both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Job Placement Rate: This rate is reported by the program as reported to the accreditation agency American Board of Funeral Services Education (ABSF). Graduates do well in obtaining jobs within the sector upon program completion.

Job placement rate	# of Graduates	
2021	100%	9
2022	80%	5
2023	100%	4

Assessment and program evaluation measures: As part of program evaluation, funeral services education evaluates graduation rate. The program is an open admissions program; designed in this manner to remove barriers to students attaining degree completion. What has been noted over the last several years is the inability to move a group of students through the program effectively. It was determined that the program would try to have students matriculate through the program via a cohort model without establishing special admissions criteria. Since students may select FSED as their major prior to taking FSED courses or without following the outlined program of study, there appear to far more students in the program that there are

actually. The graduation rate is depicted below:

Term/Year	# of Graduates
Spring 2021	7
Fall 2021	1
Spring 2022	4
Fall 2022	1
Spring 2023	4

Successful completion of the **licensing exam** is required to practice in the state of TN. The program also evaluates success on the licensure exams as part of program effectiveness. The licensing exam is divided into two components. Graduates may elect to take one or both components of the exam. The national average for pass rates in 2021 where 68% for first time pass rate in the Arts exam and 57% first time pass rate in the Science exam.

Year	Arts	Science	Overall Pass Rate
Spring 2021	3/5 (60%)	1/2 (50%)	57%
Fall 2021	1/1	NT	100%
Spring 2022	2/2	1/2	75%
Fall 2022			No testers

Program Efficiency

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Cost per degree		quantitative	Campuses should present data sets representing at least four (4) areas, including at least two (2) of the metrics in bold .	
Costs/revenue		quantitative		
Enrollment		quantitative		X
Retention rates		quantitative		X
Graduates		quantitative		X
Student credit hour production	Total numbers of students per section x credit hours for the course / 15	quantitative		X
Student credits to faculty FTE ratio		quantitative		
Amount of external funding produced		both		
Faculty productivity		both		
Other				

Provide responses to selected metrics in the box below. Make sure to address every metric selected above and provide an explanation of any data referenced.

Enrollment: The enrollment numbers depict students taking a course with the FSED rubric. Instead of using all students with FSED as their declared major, this method offers a more accurate count of enrolled students; it is also how the enrollment numbers are portrayed to the accreditation agency. Enrollment numbers are best reflected in the student credit hour production which is derived by taking the total number of students per section in a course divided by 15. Fall 2023 the program is experiencing enrollment growth. The program anticipates this will begin the new trajectory.

Retention rates: Progress is being made with retention from term to term; this will also be positively impacted with the implementation of the cohort model for admissions and progression.

Graduates: Graduate rate will climb with implementation of a cohort admission model. The program will start to see the results of this next academic year. Fall 2023 there are 6 students on track to complete, and 4 are on track for a spring 2024 completion.

Student credit hour production: FA22 there were 13.1 FTE generated by 10 sections of courses taught in the program, 5 of the courses were taught by the 1 FT and 2 PT faculty. The FT faculty also serves as the program director.

There are no new purchases to sustain this program at this time, FA 2023 enrollment is up with a new cohort of 14 (max 15) in the first term courses.

Workforce Alignment and Demand

Metric	Possible Ways to Measure	Type of Measure	Parameters	Mark with an "x" the metrics you are reporting on.
Student demand		both	Campuses should include data from three (3) categories, including two (2) of the metrics in bold .	
Employer demand		both		
Future career prospects	Growth rate by career – BLS.gov	qualitative		X
Percentage of graduates working in the field	Employment Rate as reported to ABSF	quantitative		X
Community outreach	Partnerships established that benefit the program	both		X
Employment rate upon graduation		quantitative		
Other				

Future career prospects: The Bureau of Labor Statistics job growth is expected to climb in this field slightly over the average rate of job growth. SW offers the only Funeral Services Education program in West TN, which provides educational opportunity for students in the region. Partnerships continue to flourish with local funeral homes and there is opportunity to offer a short-term certificate which can be embedded in the degree. Embedded certificates allow students to experience work within the field while they are earning their degree.

Percentage of graduates working in the field: Graduation numbers are low for this program but the employment rate for completers has been exceptionally good as noted in the employment rates for 2020 – 2023. Collaborating with additional industry partners to upskill current employees through the program completion is also part of the continued strategy to increase enrollment. As the program continues to develop strategy to attract students the entry salaries for completers should be attractive.

Community Outreach: Industry partners are being used as resources to further develop the program. For example, an embedded certificate option is currently in the development phases for this program. Community partnerships are leveraged in terms of faculty, instruction, and work-based learning opportunities such as clinical practicums. Program leaders are also working closely with Shelby County Schools to provide dual credit opportunities as well.

Are there other considerations not outlined above?

The program has experienced challenges in completing the recruitment cycle from interest to admission. During outreach and community days, the program is very popular; students express great interest. Several factors may have negatively impacted the program's ability to convert those interested into admitted students to the college. New processes in student affairs should positively impact this trend. Additionally, the program intends to develop a short-term embedded certificate that should be attractive to students looking at this field. Students will be able to complete the certificate in two semesters and eligible to work while completing the degree. This strategy will align with the college's mission of removing barriers and promoting student achievement.

Optional: Provide a narrative concerning the health of the program.

While the program is struggling currently, there is a great opportunity to demonstrate value for both students and the college with continuing the program. The cost to administer the program is not great as most of the courses are offered online and there is no overhead costs associated with equipment or other special needs for the program to run. Fall of 2023 was the first increase in enrollment the college experienced since the pandemic. The lag in overall student enrollment impacts recruitment ability for the program.

TRADITIONAL REPORTS

AUSTIN PEAY STATE UNIVERSITY

Engineering Physics, Bachelor of Science (BS) - Productivity

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	15	3	20%	2017-18	0	0	--
Fall 2018	29	20	69%	2018-19	0	0	--
Fall 2019	46	39	85%	2019-20	0	0	--
Fall 2020	58	34	59%	2020-21	8	4	50%
Fall 2021	63	35	56%	2021-22	10	8	80%
Fall 2022	63	28	44%	2022-23	10	4	40%
Fall 2023	63			2023-24	10		
Fall 2024	63			2024-25	10		

2023 Program Productivity Report

Enrollment challenges in the Engineering Physics BSE continue due to external factors (COVID-19 pandemic, shrinking high-school graduation numbers, and historically low unemployment). Fall of 2022 is expected to be the low point in the enrollment decrease due to these factors. Preliminary census-day enrollments for Fall 2023 are up 11% which significantly outstrips the College of STEM increase of 1.7% for the same term. This can be attributed to an improvement in recruiting into the program through the APSU Office of Admissions as well as attainment of ABET EAC accreditation of the program in the fall of 2022. In addition, it must be noted that the enrollment projections above were generated prior to the implementation of the Tennessee Promise. Students that opt for APSU's Tennessee Promise A.S. track but with a declared interest in Engineering Physics are not included in the actual enrollment numbers above. Historically, that has averaged approximately 10 students each fall. For Fall 2023 the total enrollment in Engineering Physics including A.S. students with a declared interest in the field is 50 (79% of target). Graduation rates reflect the enrollment challenges with a delayed response. We expect graduation rates to remain low through the 2024-25 academic year.

There are two major challenges that the program is addressing. The first is a lack of awareness on campus that the program exists. Admissions counselors are briefed annually on the programs in each college, but the campus tour guides employed by Admissions are not. We are reaching out to admissions directly to help educate those guides. The second challenge is that of incoming students not understanding the difference between Engineering Technology (a program that APSU has long had which is accredited by ABET ETAC) and Engineering Physics (accredited by ABET EAC). To rectify this, the faculty that teach the introductory seminar in both fields are entering each other's class during the first week of each term to ensure incoming students are aware of the differences in fields and employment opportunities.

EAST TENNESSEE STATE UNIVERSITY

Rehabilitative Health Science, Bachelor of Science (BS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2018	26	9	35%	2018-19	0	0	--
Fall 2019	50	110	220%	2019-20	0	0	--
Fall 2020	70	154	220%	2020-21	20	18	90%
Fall 2021	72	170	236%	2021-22	21	36	171%
Fall 2022	73	167	228%	2022-23	23	37	160%

2023 Program Report

The Rehabilitative Health Sciences BS has been a very positive addition to the ETSU portfolio of academic health programs. Once the program was launched, enrollments and graduation numbers have exceeded expectations with the exception of the initial enrollment period and the number of graduates for the 2020-21 year, which may have been impacted by student issues associated with the COVID pandemic. Overall, this program has proven to be popular among students and graduates are positioned for employment opportunities or graduate educational pursuits. For the 2022-2023 reporting period, enrollment and graduation exceeded expectations. In summary, this program continues to be of high interest to students, and it is expected that enrollment and graduation rates will continue to exceed projections and remain on an upward trajectory well into the future.

JOINT TENNESSEE TECHNOLOGICAL UNIVERSITY & EAST TENNESSEE STATE UNIVERSITY

Engineering, Bachelor of Science in Engineering (BSE)

Enrollment				Graduates			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2016	12	7	58%	2016-17	0	0	--
Fall 2017	18	34	189%	2017-18	0	0	--
Fall 2018	40	9	23%	2018-19	0	0	--
Fall 2019	58	35	60%	2019-20	10	2	20%
Fall 2020	75	45	60%	2020-21	22	6	27%
Fall 2021	40	41	102%	2021-22	4	3	75%
Fall 2022	45	42	93%	2022-23	10	4	40%
Fall 2023	50	61	122%	2023-24	10		

2023 Program Report

Enrollment and Graduation:

As of Spring 2023 enrollment included 30 first year students, 15 sophomores, 13 juniors and 3 seniors. Four students graduated from the program in May 2023. All students were ETSU-based.

Original Faculty Hiring Plan: TTU will add one faculty member to the current 13 faculty who will be teaching in the program. For ETSU, the program will utilize the six Engineering Technology faculty to support the program. In order to meet the new courses offered in engineering at ETSU, one new faculty member will be added in each of the first three years of program implementation.

In 2023, ETSU lost two faculty over the summer who taught courses for the BSE program. We are planning to refill those two positions in 2023-24 academic year.

Original Facilities and Equipment Plan: Current engineering labs and classrooms are adequate to support the proposed program at TTU. At ETSU, expansion of classrooms in Wilson-Wallis Hall, remodel office space for new faculty and update equipment in distance education classrooms will be needed.

In 2023, labs and classrooms continue to be updated as needed at TTU. ETSU installed new multimedia systems in Mechanical and Electrical Engineering lab. Purchases of lab equipment, computer lab hardware and software updates are ongoing.

Overall status update as of Spring 2023

ABET's summary of accreditation action dated August 29, 2022:

- The program is accredited to Sep 30, 2027, retroactively from October 1, 2019.
- The summary included one unresolved program concern (Criterion 7. Facilities). In particular, the concern is the reliance of departmental faculty to maintain and upgrade equipment in addition to their normal teaching and research duties at ETSU.
- The summary included one program observation as well. Seniors in the program expressed a desire to have more laboratories and hands-on experiences.

What unanticipated challenges have been experienced?

Operations continue with most of the challenges previously articulated. While some progress has been made, the following challenges still remain:

- Student enrollment has been very uneven between the universities. While the BSE is the only engineering program at ETSU, TTU has 16 other degree/concentration programs in engineering. In its current form, the Joint BSE is very similar to TTU's BSME. This remains a challenge as previously noted.
- Students continue to express concerns regarding ability to effectively engage in classes taught remotely.
- Effective faculty collaboration across both institutions remains challenging. However, this has improved in the past year.
- Logistical issues for program management. Examples are:
 - Sharing of student information across institutions has been challenging. There is a need for improved processes for sharing student advising, program progression, and program financial information with students so that consistent information is communicated regardless of home institution. Unfortunately, the students and their information must be separately entered in both universities' implementations of Banner.
 - Both institutions employ different grading scales, leading to different calculation of student GPA.
 - Both institutions have different academic calendars and course scheduling blocks (time-of-day schedules).
 - Standards for instructor qualifications needs to be unified between institutions.
 - Formulas and processes for shared resource allocations between institutions needs to be reevaluated periodically.

What challenges have been successfully met?

- The BSE program has received accreditation from the ABET Engineering Commission in August 2022.
- An effective continuous improvement process for measuring, tracking, and improving student learning outcomes has been developed and implemented on both campuses. This process should facilitate ongoing program assessment and improvement.
- Based on the 2021 academic program collaboration agreement, a program director and a site director were chosen by the joint executive board (provosts, deans, and department chairs from the two institutions). Currently, an ETSU professor serves as the program director with lead responsibilities and a TTU professor as the site director. These two directors work collaboratively to manage program implementation. Terms for directors are four years.
- The curriculum was modified to better serve the students in the program. Shifting the teaching responsibility of some courses and adding a Mechanical Engineering lab class has substantially improved student engagement in the program as well as easing some of the issue of effective engagement in classes taught remotely. The curriculum modification was done as part of the initial response to ABET's program observation mentioned above.

Which challenges remain unsolved?

- Balancing student enrollment between the two campuses. Because TTU has many different degree/concentration options in engineering and none of them require online courses, it is very

challenging to recruit students into the BSE Program. Currently, all students are ETSU-based. However, the overall enrollment numbers for Fall 2023 exceeded the projected enrollment target.

- There is a continued need for collaboration between the two institutions when curriculum modifications are made.
- Improving faculty collaboration, joint planning, and overall effectiveness of cross-campus communication continues to be an annual goal.

MIDDLE TENNESSEE STATE UNIVERSITY

Africana Studies, Bachelor of Arts (BA) and Bachelor of Science (BS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	9	9	100%	2017-18	0	0	--
Fall 2018	17	11	65%	2018-19	0	6	--
Fall 2019	28	8	29%	2019-20	4	3	75%
Fall 2020	38	16	42%	2020-21	7	6	86%
Fall 2021	46	9	20%	2021-22	10	4	40%
Fall 2022	46	3	7%	2022-23	10	1	10%
Fall 2023	46			2023-24	10		
Fall 2024	46			2024-25	10		

2023 Program Productivity Report

It is understood that the total number of majors and graduates is an indicator of a program's viability; however, looking at the number of majors/graduates does not tell the full story of how the Africana Studies program is doing. While the number of majors and graduates are below projected expectations, class enrollment is healthy and increasing.

In the fall of 2022, eighteen sections of our most popular classes were taught with a total enrollment of 461 students. In the current fall of 2023 semester, twenty-one sections of our most popular classes are being taught and our enrollment has grown by 102 students, or 22%. Enrollment numbers are an important factor for several reasons. First, they highlight that students are interested in AST course offerings. Second, most students enrolled in AST lower division courses (AST 2100, AST 2020, AST 2040/50) are first- and second-year students, some of whom have not declared a major/minor. Thus, they are potential AST majors. Over the past year, we have increased recruitment efforts targeting these students.

Recruitment efforts have also been aimed at local high schools that have African-American history classes and clubs. As an example, fifty students from Warren County High School are visiting campus next month to attend an AST class and meet AST students and faculty. We believe these and similar recruitment efforts will bear fruit in another year.

One of the recommendations made by the AST external program reviewer (which took place in spring of 2023) was to increase our visibility on campus. We are doing this by displaying yard signs and setting up tables around campus staffed by majors and minors to publicize the program and we have developed a lecture series, which will discuss critical topics within the field of African American life and history.

Dance, Bachelor of Science (BS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	13	21	162%	2017-18	0	4	--
Fall 2018	27	33	122%	2018-19	0	5	--
Fall 2019	43	40	93%	2019-20	5	10	200%
Fall 2020	52	39*	75%	2020-21	9	9	100%
Fall 2021	59	42*	71%	2021-22	11	6	55%
Fall 2022	59	46*	78%	2022-23	11	9	82%
Fall 2023	59			2023-24	11		
Fall 2024	59			2024-25	11		

**Note: This number includes students that have declared Dance as a second major.*

2023 Program Productivity Report

For Fall 2022, we welcomed 9 new students to the major. We had 46 dance majors enrolled, including 10 double majors. Our program also engaged 32 dance minors through technique and theoretical dance course content as well as 34% (11/32) who have engaged in our Dance Theatre performance series showcasing faculty and guest artist choreographic developments.

The Dance Major program exceeded graduation benchmarks in the first four years of program implementation. The pandemic prompted (a) early graduations, and (b) delayed entry to college for prospective students for the 2021-2022 AY. We observed a restoration in post-COVID graduation attainment at 82% for 2022-2023 academic year. With 13 seniors preparing to graduate in 2023-2024, we expect to exceed graduation goals for the dance major.

To address the shortfall in enrollment, the dance program faculty and leadership have developed a strategic recruitment plan with the following outlined events:

- Governor’s School for the Arts: our dance program faculty regularly instructs for the school. Our administration is actively extending program acceptance to the 23 prospective students from the summer 2023 intensive.
- Ignite! Tennessee Youth Dance Festival – College Panel Discussion, College Dance Audition
- Alabama Dance Festival – Recruitment Audition for Dance Program Acceptance, Summer Intensives, and Scholarships
- Dance Major Program Auditions: Fall, Spring, and Video Auditions accepted year round
- Open House: Sample Technique Classes, Major Q & A
- Greenway Arts Festival: Program Brochure Distribution & Performance
- Franklin HS Dance Dept. Campus Dance Day: this involved a visit of 14 prospective students from the Dance Department to experience technique classes with our dance faculty and students. A spring campus visit is being planned for MTSU dance students and faculty to engage on-site at Franklin HS.
- MTSU True Blue Preview Days (Fall & Spring dates)
- Rutherford County School Dance Educator Classroom Connections: Through a professional development workshop with dance educators in Rutherford County Schools, the Dance Program Director established opportunities to visit as a guest for prospective students on-site at their schools as well as extend the opportunity

for them to attend dance program productions, auditions, and student choreographic showcases.

Our strategic recruiting plan includes engaging in university-wide initiatives for connecting with prospective students. We have continued to foster connections with local dance studios and schools for invitations to our program productions, auditions, and Open House annual event in which we open the doors of our program classes for prospective students to experience the opportunity to major in dance at MTSU. We have continued to be dynamically engaged in the dance community of our region through attending dance festivals and conferences for enhanced visibility as a program. These dance specific recruiting engagements serve as the most enriching opportunities where we source interested prospective students with a desire to pursue an education, specialized training, and a career in dance and dance related professions.

It is important to note that the Dance program has seen a significant turnover in full-time faculty as well as program and departmental leadership. In fact, no full-time faculty or leadership remains from the period in which the program was proposed or initially implemented. This has impacted the effective implementation of the recruiting plan for the program, and undoubtedly explains some challenges with meeting enrollment and graduation projections. It is also important to consider that current dance leadership and faculty believe it will be challenging to attain the proposed goal of 59 enrolled students because of limitations compared to regional competitors; these other programs often include summer intensive programs (which are ideal for recruiting new students) and dance student scholarships at a more robust level than we are currently able to offer. Additionally, facilities and studio space in comparison to other schools within our region has continued to be a point of concern for prospective students and their families that have visited our campus.

Religious Studies, Bachelor of Arts (BA) and Bachelor of Science (BS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	9	11	122%	2017-18	0	4	--
Fall 2018	17	24	141%	2018-19	0	4	--
Fall 2019	28	32	114%	2019-20	4	7	175%
Fall 2020	38	33*	87%	2020-21	7	10	143%
Fall 2021	46	28*	61%	2021-22	10	8	80%
Fall 2022	46	32*	70%	2022-23	10	10	100%
Fall 2023	46			2023-24	10		
Fall 2024	46			2024-25	10		

2023 Program Productivity Report

As indicated in enrollment data above, Religious Studies exceeded enrollment projections in its first three years of implementation. After a downturn in fall 2021, the major saw an increase in enrollment during fall 2022 (and enrollment appears stable for fall 2023). Likewise, MTSU’s B.A. and B.S. program in Religious Studies has routinely met or exceeded its graduation benchmarks. Indeed, MTSU’s Religious Studies program’s graduation rate outstrips the University of Tennessee’s flagship campus. UTK, with fourteen faculty, has graduated 6-8 students per year over the past ten years; MTSU, with three faculty, has graduated 8-10 per year over the past three years.

We anticipate increasing the size of our major cohort to pre-pandemic levels by implementing the plan described below.

Curricular Changes

Commencing in 2024, TBR will offer a Tennessee Transfer Pathway in Religious Studies. This will allow students in the TBR system to have the opportunity to complete an AA or AS degree in Religious Studies, which will be easily transferrable to MTSU. This initiative was spearheaded by Dr. Jenna Gray-Hildenbrand, MTSU Professor of Religious Studies. We will recruit at community colleges following the launch of the TTP. In addition, since most Religious Studies majors are recruited from the ranks of general education students and Religious Studies minors, we have expanded our Religious Studies online course offerings. Beginning in Spring 2024, students will be able to complete the Religious Studies minor entirely online. This also means that Religious Studies majors can complete fifty percent of their degree online. Finally, the department has hired a third tenure-track faculty member who has developed new courses that are attracting a diverse cohort of students to the major.

Student Recruitment and Retention

Our Religious Studies program received a \$100,000 gift to award scholarships to Religious Studies majors over the past three years. The donors have agreed to continue supporting the Religious Studies program, and we will continue to promote the scholarship on our website and other recruiting materials. Our recruiting activities include personalized letters, phone calls, emails, and faculty attendance at CUSTOMS new student orientation and MTSU

recruiting events such as Preview Days. With the resumption of on-campus events, the Religious Studies program at MTSU has been able to reestablish in-person faculty mentorship both in and outside the classroom, which students routinely identify in their Senior Exit Survey as being instrumental in their choice to major in Religious Studies. In Fall 2023, we are relaunching our well-attended Religious Studies Colloquium series. We have also been able to return to our in-person visits to religious sites in Middle Tennessee, which are consistently praised as a high-impact learning experience.

TENNESSEE TECHNOLOGICAL UNIVERSITY

Professional Science, PSM

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2013	9	3	33%	2013-14	0	1	--
Fall 2014	18	5	28%	2014-15	6	1	17%
Fall 2015	26	9	35%	2015-16	6	3	50%
Fall 2016	33	7	21%	2016-17	8	5	63%
Fall 2017	40	8	20%	2017-18	8	2	25%
Fall 2018	15	15	100%	2018-19	5	4	80%
Fall 2019	16	18	113%	2019-20	6	5	83%
Fall 2020	16	19	119%	2020-21	6	4	67%
Fall 2021	18	15	83%	2021-22	5	3	60%
Fall 2022	18	17	94%	2022-23	5	7	140%
Fall 2023	18	22	122%	2023-24	5		

2023 Program Productivity Report

As mentioned in the 2022 report, this year we continued developing a new PSM concentration to join the existing concentration in Environmental Informatics. During 2023, it became apparent that there was an opportunity to develop not one, but two new concentrations: "Environmental Science" and "Environmental Sustainability". The curricula have already been drafted for the two new concentrations and we met with administrators in the College of Graduate Studies and faculty in the various departments to iron out any details. In addition, we contacted the national PSM society (Tennessee Tech is an affiliate) to ask if it was possible to add a thesis option to the current non-thesis option. The national group responded positively, so we are not only adding two new concentrations, but also a thesis option to all three concentrations. We expect these additions will greatly improve enrollment rates by giving potential students more curricular choices, and we expect graduation rates to improve with the larger enrollment coupled with a thesis option which may appeal to more traditional, on-ground learners who can matriculate through the program in only two years. The two new concentrations will be proposed and submitted for approval to THEC in late fall 2023 or early spring 2024.

In addition, we hired a new faculty member in our department, Dr. Samantha Allen, as a Lecturer who specializes in spatial analyses, remote sensing, GIS, modeling, and freshwater ecosystems. Dr. Allen has designed two new graduate courses that we'll be adding to the PSM curricula, and she has joined the graduate faculty so she can serve as an advisor to incoming students in the two new concentrations. We expect this increase in faculty capacity will accommodate and facilitate enrollment growth and improve graduate rates. One of our problems in earlier years was finding enough faculty willing to take on additional graduate students, and the addition of Dr. Allen will alleviate some of that bottleneck.

In addition, Tennessee Tech recently obtained a \$3 million National Science Foundation grant in the National Research Traineeship program. In the first cohort of the 5-year program, two new PSM students have been awarded fellowships. We also modeled one of the newly proposed PSM concentrations, "Environmental Sustainability" after the coursework requirements of the NSF NRT grant/program, to facilitate and encourage additional PSM students interested in the Food-Energy-

Water Nexus to apply for open fellowships in the subsequent years of the NSF NRT award, with a reduced burden of extra coursework requirements.

Finally, last year we had 17 students enrolled in Fall 2022 (94% projection) and 7 students graduated in 2022-2023 (140% projection). This Fall 2023 we have 22 students enrolled (122% projection) and we expect 5-6 students to graduate in 2023-2024 ($\geq 100\%$ projection). We are confident that we will be meeting our projections, given the changes described above and the numbers of enrolled students and graduating students.

UNIVERSITY OF MEMPHIS

Commercial Aviation, Bachelor of Science (BS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2018	10	7	70%	2018-19	0	0	--
Fall 2019	15	21	140%	2019-20	0	0	--
Fall 2020	25	12	48%	2020-21	2	3	150%
Fall 2021	30	16	53%	2021-22	5	5	100%
Fall 2022	30	81	270%	2022-23	15	7	47%

2023 Program Report

A number of reasons has slowed projected graduation:

- 1) Our initial projection was overly optimistic when not fully considering training time, maintenance of aircraft, the number of aircraft available for training at the vendor and weather.
- 2) COVID impacted progress during AY 20-21 and the ripple effects are still being felt, especially because of the issues identified in the first point.
- 3) After numerous attempts to provide the FAA required documentation and change requirements for the R-ATP (Restricted Airline Transport Pilot License), we still have not been approved for this. We, unfortunately, have lost some students to other schools or other majors.
- 4) We are in the process of adding new required courses to the curriculum to satisfy AABI (Aviation Accreditation Board International) and FAA requirements.
- 5) However, we have also made a number of positive moves:

- 96 students are currently enrolled in the aviation program;
- UofM is now teaching AVIA 2200 (Instrument Ground School) and 3200 (Commercial Ground School) on campus rather than at our flight vendor, in order to reach R-ATP status with the FAA and accreditation with AABI;
- We are providing students additional focused tutorials through Sheppard Air to prepare them for successful completion of AVIA 2200, 3200 and the associated FAA Knowledge Exams;
- To date, we have awarded, 35 Purple Runway Scholarships to aviation students. Fed Ex has graciously allowed us to keep additional funds for the scholarship to award for a 6th year. (The Purple Runway Scholarship was awarded to all the institutions for 5 years.);
- We hired a new program coordinator, Kimberly Coryat, retired MD11 Captain from FedEx;
- We hired two Chief Flight Instructors (CFIs): Katie Abudei and Doug Keplinger;
- Our students have begun a very active aviation student organization;
- We have employed current students to run the Simulator Lab;
- We have identified a specific classroom dedicated to our aviation students and try to schedule many aviation courses in the classroom;
- We are working to move many of the non-regulatory courses online in order to allow students flexibility with their flying and work schedules;
- We are collaborating with the Department of Earth Sciences, to fill a joint position that will assist us in offering more sections of Weather and Climate and a new aviation meteorology course (an R-ATP requirement).

UNIVERSITY OF TENNESSEE, CHATTANOOGA

Chronic Disease Prevention and Control, Master of Public Health (MPH)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2018	20	21	105%	2018-19	0	0	--
Fall 2019	38	31	82%	2019-20	0	16	--
Fall 2020	56	37	66%	2020-21	18	12	67%
Fall 2021	56	39	70%	2021-22	18	16	89%
Fall 2022	56	45	80%	2022-23	19	17	89%

2023 Program Productivity Report

The MPH program has been growing steadily since its implementation in 2018. Most years, the program enrollment was close to threshold of productive programs, with a dip in enrollment in Fall 2020. Part of this dip is explained by graduating 16 students ahead of schedule. For the last two years, the program has been at 89% of projected graduates.

Programmatic Alignment (State Master Plan, UTC Mission, and UTC Strategic Plan)

State Master Plan

The implementation of the MPH at UTC strongly supports the Tennessee state Master Plan (<https://www.tn.gov/thec/article/statewide-master-plan>). Specifically, as part of the Drive to 55 initiative, graduates from the MPH contribute to the target number of postsecondary degrees. We have a robust online course delivery infrastructure for course offerings in the MPH to afford greater flexibility for students. Our faculty are trained in Quality Matters, which ensures rigor and consistency of method, regardless of delivery modality. Longitudinally, the chronic disease prevention and control emphasis of the MPH, in collaboration with the UTC Healthy Living Initiative, will result in programs, research, and community partnerships that may positively impact the economy through reduced health care costs and improved worker productivity. No other institution locally or regionally offers an MPH with these emphases or potential.

UTC Mission and Strategic Plan

The University of Tennessee at Chattanooga is a driving force for achieving excellence by actively engaging students, faculty, and staff; embracing diversity and inclusion; inspiring positive change; and enriching and sustaining our community. In fulfilling its mission, it is dedicated to the five core values: Students are the primary reason we exist as an institution; We live integrity, civility, and honesty; We relentlessly pursue excellence; We embrace diversity and inclusion; Creativity, inquiry and scholarship are our culture.

In support of the Institutional Mission, the UTC strategic plan is guided by a pledge handed down from generation to generation— “We shall achieve.” This simple yet bold statement tells the world what to expect from the UTC campus. Much emphasis is placed, appropriately so, on the achievement element of this phrase. Equally important, however, is the subject “we” - the notion that we can do more by working together than by working separately. Partnerships are necessary to establish and sustain this effort. The mission of the department is to provide quality educational opportunities for the Chattanooga community that focus on physical activity and nutrition. Faculty intentionally align course curriculum with community based participatory research to provide students with opportunities to merge theory and

practice. Strategic planning must build upon a legacy of achievement and combine with a commitment to academic excellence, innovation, and service. It is a vital, continuous process that contributes to the future success of the university.

Student Success and Outcomes

Program Assessment (MPH Exit Survey: Program Evaluation SP2023)

The MPH is comprised of eight skill domains: evidence-based approaches to public health, public health & health care systems, planning & management to promote health, policy in public health, leadership, communication, inter-professional practice, and systems thinking. The program developed and administered a program evaluation survey to ensure students demonstrated confidence in these vital domains. Results from the Spring 2023 survey are located in the table below. These results are utilized to make programmatic changes.

	Extremely Confident	Very Confident
Please evaluate your overall level of confidence in your ABILITY to APPLY Evidence-Based Approaches to Public Health in a real-world setting.	44.4%	44.4%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Public Health & Health Care Systems in a real-world setting.	77.8%	22.2%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Planning and Management to Promote Health in a real-world setting.	55.6%	33.3%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Policy in Public Health in a real-world setting.	33.3%	22.2%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Public Health Leadership in a real-world setting.	88.9%	0.00%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Communication in Public Health in a real-world setting.	77.8%	22.2%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Inter-professional Practice in Public Health in a real-world setting.	77.8%	22.2%
Please evaluate your overall level of confidence in your ABILITY to APPLY what you have learned about Systems Thinking in Public Health in a real-world setting.	44.4%	33.3%

Satisfaction Survey (MPH Exit Survey: Program Evaluation SP2023)

The program also surveyed students about their overall MPH experience in order to meet future student needs. Over 88% indicated the program was a positive experience. Further, 89% indicated the MPH program was one they would recommend to others.

Post-Graduation Outcomes

UTC administers a survey similar to the First Destination Survey to graduating students to determine outcomes after graduation. Of the 10 MPH graduates who completed the survey, 60% (n=6) are working, 20% (n=2) are still looking, and 20% (2) are still looking. Additionally, 40% (4) reported that their degree is directly or somewhat related to their current position.

Program Efficiency

Enrollment

The MPH program has grown from 21 students enrolled in Fall 2018 to 45 students in Fall 2022. For Fall 2023, there are 47 students enrolled demonstrating program stability.

Graduates

The MPH began awarding degrees in AY2019-2020 for 16 students. The program has been a steady producer of degrees meeting 89% of graduation projections for the last two years.

Workforce Alignment and Demand

CIP to SOC Alignment

The alignment of the Classification of Instruction Programs (CIP) to Standard Occupation Codes (SOC) for this program is clear.

Program: MPH Public Health	CIP: 51.2299
Occupation: Medical and Health Services Managers	SOC: 11-9111
Occupation: Health Education Specialists	SOC: 21-1091
Occupation: Community Health Workers	SOC: 21-1094

Investigation into workforce demand demonstrates continued strong growth from when the program was proposed. Hamilton County (HC) posts much higher job growth than Tennessee (TN) and the nation (U.S.), and the correlating average annual salary is also higher. The table below provides percentage job growth from 2018-2022 and average salary for region.

Occupation	HC % Growth	HC Ave. Salary	TN % Growth	TN Ave. Salary	U.S. % Growth	U.S. Ave. Salary
Medical and Health Services Managers	107.0%	\$122,299	25.7%	\$111,842	32.2%	\$104,832
Health Education Specialists	-40.0%	\$64,417	-6.2%	\$62,566	-0.9%	\$59,987
Community Health Workers	30.2%	\$48,658	-24.7%	\$46,883	12.0%	\$46,197
Occupation Average	32.4%	\$78,458.31	-1.7%	\$73,764	14.4%	\$70,339

Summary

What were the key successes of the program that allowed the program to find overall success?

The MPH program achieves overall success through a combination of key successes, the program is designed to produce graduates who are well-prepared to improve the health and well-being of individuals

and focuses on prevention chronic diseases by promoting healthy behaviors and addressing various health disparities. The MPH program provides high-quality education and training in various aspects of public health, including epidemiology, biostatistics, nutrition, and social and behavioral sciences. The faculty play a major role in the key successes of the program. The program frequently receives feedback from students and graduates that that faculty are very knowledgeable in the subjects they teach as well as create opportunities for students to get involved in research and community service. Receiving and maintaining accreditation from the Council on Education for Public Health (CEPH), is an indicator of program quality and success.

What are the important strengths of the program that position this program for success moving forward?

Public health programs often include practical components such as internships, fieldwork, or practicums. One of the important strengths of the UTC MPH program is the applied practical experiences that are achieved through a variety of courses such as Public Health Exposure and Integrative Learning Experience. Our graduates gain hands-on experience working in public health settings while they are enrolled in courses to bridge the gap between theory and practice, which enhances students' ability to apply theoretical knowledge to real-world settings. Another important strength of the MPH program is the successful collaboration and networking among students, faculty, and community partners. These connections can be valuable for career development, collaboration, and information sharing within the public health field. The MPH program engages with many local communities and collaborates on public health initiatives that have a tangible impact on the health of communities in Chattanooga and the surrounding area. Faculty and staff are engaged in scholarly work that allows students to participate in research and grant activities as well as provide assistantships for MPH students.

What are areas of improvement that will help maintain the overall success of this program moving forward?

Maintaining the overall success of the MPH program requires continuous improvement and adaptation to educational needs. The program regularly reviews and updates the curriculum to reflect student and alumni feedback. The program has reduced the number of credits hours and keeps on revising its curriculum as needed based on students' feedback. The MPH program continuously develops relationships with a diverse range of public health agencies and community partners for practical experience opportunities.

One area of improvement the MPH program is striving to improve is introducing new concentrations to address evolving public health issues, such as epidemiology, nutrition, and community health as well as enhancing efforts to promote diversity and inclusivity among students and faculty and increase the number of non-traditional students in the program. To address this area, the program has created a priority amongst its faculty and students. The faculty priority population includes those from historically marginalized backgrounds such as first-generation college students and faculty with an education and background in public health policy and rural health specialization. The student priority population includes students of color and non-traditional students such as age of 25 and over, employed for 30+ hours a week, raising family, and first-generation college student.

Mechatronics Engineering, Bachelor of Applied Science (BAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2018	20	7	35%	2018-19	0	0	--
Fall 2019	30	37	123%	2019-20	0	5	--
Fall 2020	40	64	160%	2020-21	10	10	100%
Fall 2021	50	86	172%	2021-22	12	9	75%
Fall 2022	60	87	145%	2022-23	15	27	180%

2023 Program Productivity Report

The Mechatronics Engineering, BAS degree has well exceeded annual enrollment and graduation benchmarks initially proposed and is well positioned to continue successful growth as well as positive impact for students.

Programmatic Alignment (State Master Plan, UTC Mission, and UTC Strategic Plan)

State Master Plan

The Tennessee Higher Education Commission's (THEC) 2015-2025 State Master Plan and the Complete College Tennessee Act 2010 mandated that universities focus on "educational attainment and increased degree production, taking into consideration Tennessee's economic development, workforce development, and research needs" (THEC, 2015). In accordance with the THEC Master Plan, the proposed degree was designed to address the skills needed for individuals within the technical field interested in advancing their technical careers with a 4-year degree program. Specially the program aligns to the Master Plan in three significant ways:

1. Increase the number of highly skilled and prepared workers for future economic development and investment in the community (workforce development, economic investment & growth).
2. Increase the number of our citizens with a baccalaureate degree in southeast Tennessee (educational attainment).
3. Advance UTC's position in providing a baccalaureate pathway for our large and diverse population of nontraditional students (access).

UTC Mission and Strategic Plan

The mission of UTC is to be a driving force for achieving excellence by actively engaging students, faculty and staff; embracing diversity and inclusion; inspiring positive change; and enriching and sustaining our community. In support of the institutional mission, the UTC strategic plan is guided by a pledge handed down from generation to generation — "We shall achieve." This simple yet bold statement tells the world what to expect from the UTC campus. Much emphasis is placed, appropriately so, on the achievement element of this phrase. Equally important, however, is the subject "we" – the notion that we can do more by working together than by working separately.

The main strategic goals from UTC's plan are:

1. To transform lives through meaningful learning experiences for students.
2. To inspire, nurture and empower scholarship, creativity, discovery, innovation, and entrepreneurial initiatives for students.
3. To ensure stewardship of resources through strategic alignment and investments.
4. To embrace diversity and inclusion as a path to excellence and societal change within the university's surrounding community.

Like UTC's Core Values, the Engineering Management & Technology Department is committed, through the BAS degree, to develop ethically and socially responsible leaders within the automation and robotics industry; to create a supportive, collegial learning environment for those who seek knowledge; to build effective community partnerships; and to achieve national recognition through research, scholarship, and creative endeavors. The Mechatronics Engineering Technology, BAS further supports UTC mission and Strategic Plan through community partnerships and its focus on technical revitalization.

Student Success and Outcomes

In addition to exceeding enrollment and graduation benchmarks, students report satisfaction with the program, are learning skills to be successful in future careers, and entering the workforce.

National Survey of Student Engagement (NSSE) Results for 2021-2023

According to the NSSE results for BAS Mechatronics Seniors between 2021 and 2023, almost 80% evaluate their educational experience as excellent or good. Additionally, almost 70% reported that their experience at the institution, and in the program, contributed to acquiring job related knowledge and skills.

BAS Mechatronics- Seniors NSSE Results Combined 2021-2023			
	Very Much	Quite a Bit	Total Positive Responses
How much does your institution emphasize providing support to help students succeed academically?	26.1%	52.2%	78.3%
How much does your institution emphasize the following helping you manage your non-academic responsibilities (work, family, etc.)?	4.3%	39.1%	43.4%
How much has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring job- or work-related knowledge and skills ?	43.5%	26.1%	69.6%
	Excellent	Good	Total Positive Responses
How would you evaluate your entire educational experience at this institution?	43.5%	34.8%	78.3%

ETS Proficiency Profile (Senior Exit Exam)

UTC annually administers the ETS Proficiency Profile (known on campus as the Senior Exit Exam) to graduating seniors. This is a comprehensive standardized test of general education content areas: writing skills, mathematics, reading, and critical thinking. For the 2022-23 year, the average combined mean score for all UTC graduates was 440.27. Graduates of the BAS Mechatronics program earned a mean score of 439.04. Just over 1 point difference is seen between the program graduates and all undergraduates.

Post-Graduation Outcomes

UTC administers a survey similar to the First Destination Survey to graduating students to determine outcomes after graduation. Of the 23 BAS Mechatronics graduates who completed the survey, 87% (n=20) are working, 9% (n=2) are still looking, and 4% (1) is unemployed and actively seeking unemployment. Additionally, 78% (18) reported that their degree is directly or somewhat related to their current position.

Program Efficiency

Enrollment

Enrollment has continued to increase and surpass expectations. At the end of five years, the program is at 145% of the full implementation enrollment goal, increasing from seven students in Fall 2018 to 87 in Fall 2022.

Graduates

Similar to enrollment goals, the program has surpassed goals for producing graduates. The program has steadily been increasing the number of graduates from five in AY2019-2020 to 27 in AY2022-2023.

Workforce Alignment and Demand

CIP to SOC Alignment

The alignment of the Classification of Instruction Programs (CIP) to Standard Occupation Codes (SOC) for this program is clear.

Program: BAS Mechatronics Engineering Technology CIP: 15.0407

Occupation: Electro-Mechanical and Mechatronics Technologists and Technicians SOC: 17-3024

Investigation into workforce demand demonstrates continued strong growth from when the program was proposed. Hamilton County (HC) and Tennessee (TN) post higher job growth than the nation (U.S.), although average annual salary is slightly lower. The table below provides percentage job growth from 2018-2022 and average salary for region.

Occupation	HC % Growth	HC Ave. Salary	TN % Growth	TN Ave. Salary	U.S. % Growth	U.S. Ave. Salary
Electro-Mechanical and Mechatronics Technologists and Technicians	55.4%	\$53,939	90.0%	\$46,217	12.6%	\$60,570

Summary

What were the key successes of the program that allowed the program to find overall success?

The program's overall success can be attributed to several key factors. Mainly, its emphasis on job placements has been pivotal, as it actively connects students with industry partners and facilitates internships, ensuring graduates' employability. Additionally, strong industry relations have shaped the curriculum to align with industry needs, keeping the program relevant. Furthermore, the commitment to involving undergraduate students in research has enriched their academic experience and developed critical skills, enhancing the program's academic excellence and reputation. In summary, the program's achievements are due to its dedication to job placements, strong industry ties, and a commitment to fostering undergraduate research opportunities, collectively propelling its overall success and continued growth in education.

What are the important strengths of the program that position this program for success moving forward?

The program is well-positioned for sustained success thanks to several key strengths. Firstly, its commitment to hands-on learning with new technology equips graduates with practical skills and adaptability in a rapidly evolving technological landscape. Additionally, its engagement with high school students through outreach programs not only expands its potential student base but also contributes to nurturing a skilled workforce for the future. Lastly, the program benefits from qualified human resources, including experienced faculty and dedicated staff, who uphold high academic standards and provide quality education and mentorship. In summary, the program's strengths in hands-on learning, outreach to high school students, and a qualified team, position it for continued success, ensuring relevance and excellence in education.

What are areas of improvement that will help maintain the overall success of this program moving forward?

To maintain the overall success of the program moving forward, there are several key areas of improvement that should be considered. One significant aspect is continuous updating of the curriculum to align with emerging trends and industry demands. Incorporating topics such as AI-based control and the design and control of Electrical Vehicles (EV), Automated Guided Vehicles (AGV), and Mobile Robotics is essential. These subjects are at the forefront of technological advancements and are highly relevant in today's rapidly evolving job market. Ensuring that students are well-versed in these areas will not only enhance their employability but also contribute to the program's reputation as a leader in providing cutting-edge education. The program will need to invest in faculty development in these areas as well as establishment of relevant laboratory experiences.

UNIVERSITY OF TENNESSEE, KNOXVILLE

Entomology, Plant Pathology, and Nematology, PhD

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2015	3	0	0%	2015-16	0	1	--
Fall 2016	7	11	157%	2016-17	0	1	--
Fall 2017	11	9	82%	2017-18	3	2	67%
Fall 2018	15	11	73%	2018-19	3	4	133%
Fall 2019	18	14	78%	2019-20	4	4	100%
Fall 2020	18	22	122%	2020-21	4	1	25%
Fall 2021	18	25	139%	2021-22	4	1	25%
Fall 2022	18	29	161%	2022-23	4	4	100%
Fall 2023	18	25	139%	2023-24	4		
Fall 2024	18			2024-25	4		

2023 Program Productivity Report

Graduate enrollment continued to increase from 25 to 29 between Fall 2021 and Fall 2022, with four students graduating during AY 2022-23. For Fall 2023, the number of PhD students in our program stabilized at 25, with 4-5 graduations anticipated for AY 23-24 and recruitment of 4-5 additional students expected for AY 24-25. However, our goal is to grow our PhD program. We have an ample number of qualified student applicants, but additional resources are needed to support graduate stipends and tuition costs, which will require additional faculty. Opportunities for additional faculty hires were realized during the past year, when our department was awarded three new positions from a cluster hire competition held by the university. In total, the department will have seven new faculty hires for AY 23-24. Four of these hires are for new research programmatic areas, while the remaining three are replacements. Almost all of our graduate students are supported with Graduate Research Assistantships, funded by grants and contracts secured by the faculty. The additional number of faculty will provide significantly more financial support for assistantships, which is crucial to meet our goals of increasing our PhD enrollment to 45-50 over the next 5 years. In addition, the increased number of courses offered by the new faculty hires, and our increased course enrollments in both graduate and undergraduate courses over the past three years, should enable EPP to secure additional funding for Graduate Teaching Assistantships from Herbert College to support more graduate students. With these new developments, we believe that we are well-positioned to grow our PhD program.

CLEVELAND STATE COMMUNITY COLLEGE

Fine Arts, Associate of Fine Arts (AFA)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2013	15	6	40%	2013-14	10	1	10%
Fall 2014	40	12	30%	2014-15	25	0	0%
Fall 2015	20	14	14%	2015-16	3	2	67%
Fall 2016	27	15	56%	2016-17	5	1	20%
Fall 2017	34	18	53%	2017-18	12	6	50%
Fall 2018	34	17	50%	2018-19	12	5	42%
Fall 2019	34	21	62%	2019-20	12	2	16%
Fall 2020	20	20	100%	2020-21	12	2	16%
Fall 2021	15	11	73%	2021-22	12	2	16%
Fall 2022	15	16	106%	2022-23	12	2	16%
Fall 2023	15			2023-24	12		
Fall 2024	15			2024-25	12		

2023 Program Productivity Report

While enrollment was still doing well in 2022, the number of graduates continued to remain low. This program was approved for termination in August 2023 with phase out ending June 2024.

Following discussions with Dr. Hamilton, Dr. Deaton and Dr. Berryman, the auditors from our last Academic Audit, our campus leaders, as well as program coordinators on other campuses, we decided to discontinue the A.F.A. program at Cleveland State.

Law Enforcement, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	15	6	40%	2017-18	0	1	--
Fall 2018	28	24	86%	2018-19	8	4	50%
Fall 2019	30	29	97%	2019-20	10	5	50%
Fall 2020	30	20	67%	2020-21	10	3	30%
Fall 2021	15	9	60%	2021-22	10	1	10%
Fall 2022	20	13	87%	2022-23	10	2	20%

2023 Program Productivity Report

Enrollment picked up from last year and the number of graduates increased from last year, but the total number of annual graduates continues to be below the goals we have set for the program.

While the graduation numbers continue to be lower than we hoped, the courses students take are already being taught for students in majoring in Criminal Justice and the Law Enforcement Training Academy, so there is no additional instructional or institutional cost and minimal costs in terms of advising and administrative work. The two graduates from 2022-23 graduated as part of a class of 25.

This program was added as a supplement to our Criminal Justice Emphasis (University Parallel, A.S.) and Law Enforcement Training (LET) certificate to provide additional alternatives for students within their career and it continues to meet that need, even with low numbers. This summer we reviewed the scheduling of our Criminal Justice classes from semester to semester to make it easier for students to take all of the classes needed in order to graduate on time, and expect that will help provide stability for students in the program. We are also developing a Correctional Officers certificate which we anticipate would attract additional students for this and other programs.

One of the biggest challenges for this program continues to be that many of the incoming students want to go straight into the LET certificate instead of doing the three semesters of work beforehand for the A.A.S., despite the fact that most departments will not hire officers under the age of 21. We are working on getting that message out better as we recruit and coordinate with LET to do what is best for the students.

Another challenge we face this year is replacing the full-time instructor who is now no longer teaching for us. We currently have several highly qualified adjunct instructors who are working well with our current students. We will continue to assess program needs as we evaluate how to best recruit, teach, support, retain, and graduate students in this career field moving forward.

Medical Informatics, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2014	15			2014-15	--	--	--
Fall 2015	20	1	7%	2015-16	12	0	0%
Fall 2016	20	7	35%	2016-17	15	1	7%
Fall 2017	20	1	5%	2017-18	15	0	0%
Fall 2018	20	7	35%	2018-19	15	1	7%
Fall 2019	20	8	40%	2019-20	15	0	0%
Fall 2020	20	4	20%	2020-21	15	1	7%
Fall 2021	20	7	35%	2021-22	15	0	0%
Fall 2022	20	3	15%	2022-23	15	1	7%

2023 Program Productivity Report

We are in the beginning stages of phasing out this degree. At the time the degree was added to our inventory there were two national certifications specific to Healthcare IT that our students could sit for. Now both of those certifications have been deleted. Not only do we not have sufficient students to sustain this degree but the job market demands have changed and the degree is no longer as attractive to area employers. We have already been in contact with the students to determine phase-out plans for them.

Paramedic, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2015	10	15	150%	2015-16	0	2	--
Fall 2016	18	7	39%	2016-17	12	1	8%
Fall 2017	18	17	94%	2017-18	12	1	8%
Fall 2018	18	10	56%	2018-19	12	6	50%
Fall 2019	18	7	39%	2019-20	12	5	42%
Fall 2020	18	10	56%	2020-21	12	1	8%
Fall 2021	15	14	93%	2021-22	12	0.5*	0% 42%
Fall 2022	15	11	73%	2022-23	12	7	58%
Fall 2023	15			2023-24	12		

2023 Program Productivity Report

* The original numbers submitted for 21-22 did not include summer graduates. This will be the case for 22-23 graduates as well due to the timing of this report.

We continue to face the challenge of lack of financial or employment incentive to go beyond the Paramedic Certification afforded by completion of the Paramedic Technical Certificate. Paramedics do not experience any financial reward for taking the additional general education courses necessary to complete their A.A.S. degree. However, we continue to work with area employers as well as our academic advisors and program faculty to aggressively advise and promote completion of the A.A.S.

After having reviewed the projected enrollment and graduation goals originally set for this program of 18 enrollments and 12 graduates annually, we have determined that this was not a realistic goal. Based on the enrollment pattern, we adjusted our goals to be 15 enrollees and 12 graduates annually.

COLUMBIA STATE COMMUNITY COLLEGE

Civil and Construction Engineering, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2022	10	0		2022-23		0	
Fall 2023	18	0		2023-24			
Fall 2024	30			2024-25			

2023 Implementation Report

Due to continued decrease in overall student enrollments during the Fall 2022 semester, the decision was to continue to postpone hiring a full-time faculty member to serve as program director and implementation of this program during the 2022-23 academic year. The SACSCOC Substantive change was not resubmitted.

Even though there is continued growth in construction in our service area with a continued decrease for on campus learning and adults student populations on campus it was not a good time to start a new program on campus. The college had planned to submit termination of the program during Fall 2023.

No new challenges have been experienced but an unanticipated partnership has arisen. In recent meetings with Williamson County Schools and key stakeholders in Williamson County, there is interest in offering this type of program at the new Williamson County School's Technology Center slated to open in 2025. As a result of these discussions the college has submitted a request to TBR to inactivate the program. There are no current cost or student enrollments in the program. With more time we should be able to see if this potential partnership in Williamson County will become viable. If so the college would be in a better position to meet the needs in Williamson County by submitting a proposal to reactivate the program than to terminate now and start the process for submitting a new program proposal within this academic year and submission of the new program to SACSCOC for implementation by 2025.

Fire Science, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2019	10	1	10%	2019-20	0	0	--
Fall 2020	23	1	4%	2020-21	2	0	0%
Fall 2021	30	0	0%	2021-22	8	0	0%
Fall 2022	30	0	0%	2021-23	8	0	0%
Fall 2023	30	0		2021-24	8		
Fall 2024	30			2021-25	8		

2023 Program Productivity Report

Despite multiple efforts to recruit and hire a program lead, the fire science certificate program has not had a program director or any full-time faculty since the end of the Fall 2019 term. There has been no enrollment in the program since Fall 2020. Prior to 2020, the college was able to offer Dual Enrollment classes in two high schools in our service area hoping to attract majors to this program. Students completed the initial course but none continued to declare a major in this program.

Columbia State attempted to submit a proposal to terminate the program to TBR in Curriculog by 9/15/2023. We realized on 9/26/2023 that the proposal was still awaiting approval from the originator. That step was completed and the request for termination is in process at TBR.

JACKSON STATE COMMUNITY COLLEGE

Respiratory Care, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2018	12	11	92%	2018-19	11	10	91%
Fall 2019	26	11	42%	2019-20	12	10	83%
Fall 2020	28	13	46%	2020-21	14	0*	0%
Fall 2021	24	19	79%	2021-22	12	10	83%
Fall 2022	22	25	114%	2022-23	8	7	88%
Fall 2023	26	28	108%	2023-24	14		

* The actual number of graduates [in 2020-21] is "0." The reason there were no graduates is because the program requested, and it was approved, to move the admission semester to the fall instead of the initial spring semester admission. The fall admission aligns the respiratory care program with the other health sciences programs that have a selective admission process. A cohort of students was not admitted in the spring 2020, which would be projected to graduate in the summer 2021. Instead, a cohort was admitted fall 2020 and are projected to graduate spring 2022. The fall 2020 admission also aligns the new students with the adoption of the common statewide respiratory care curriculum that began fall 2020. The next cohort of students will begin fall 2021 with a projected graduation of spring 2023.

2023 Program Productivity Report

The total number of students enrolled in the program for Fall 2022 was projected to be 22 but was actually 25. This included incoming cohort of 17, which was maximum enrollment of 16 plus 1 above max which was approved by the COARC accrediting body, The second year class number was 8 for the fall semester. The cohort began with 12 and lost 2 for personal, non- academic reasons and one for a change in course of study. 1 was dismissed due to academic failure in the first semester(Fall of 2021). Increase in recruitment events and partnership with HRSA/Baptist healthcare grant allowed for concentrated marketing of the program throughout the Northwest TN counties which contributed to the increase in enrollment for Fall 2022 and Fall 2023. Sustained interest in the program has been noted. We anticipated some challenges with increase in enrollment and have managed to proactively address the needs as noted in the program challenges and corrective actions section.

2022-23 Graduate Job Placement 100%
 2021-22 Graduate Licensure Pass Rate 100% (10 graduates)

MOTLOW STATE COMMUNITY COLLEGE

Medical Laboratory Technology, Associated of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2017	10	18	180%	2017-18	10	0	0%
Fall 2018	12	32	267%	2018-19	10	0	0%
Fall 2019	12	30	250%	2019-20	12	8	67%
Fall 2020	12	19	158%	2020-21	12	8	67%
Fall 2021	12	16	133%	2021-22	12	0	0%
Fall 2022	12	0	0%	2022-23	12	26	216%
Fall 2023	12			2023-24	12		

2023 Program Productivity Report

The 2022-2023 had a graduating class of 26 students which exceeded the projected number of 12 graduates with an attainment percentage of 216% of the projected goal. Those students graduated in August 2022 and were part of the cohort that began in 2021-2022. Unfortunately, the program director for the AAS in Medical Laboratory Technology left the position prior to the start of the Fall 2022 semester, and the only other program instructor also resigned. Therefore, the Fall 2022 enrollment data reflects the temporary enrollment drop in the program since there were no qualified faculty members. At the recommendation of the programmatic accrediting body NAACLS, Motlow did not start a new cohort of students in Fall 2022. The college did immediately advertise for a new program director, but a qualified candidate did not accept until Summer 2023. The new director is working with the Dean of Health Sciences to revitalize the program, and plans are in place to start a new cohort class in Spring 2024.

Paramedic, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2014	3	5	167%	2014-15	2	0	0%
Fall 2015	5	19	380%	2015-16	4	2	50%
Fall 2016	8	28	350%	2016-17	6	1	17%
Fall 2017	12	26	217%	2017-18	8	4	50%
Fall 2018	17	50	294%	2018-19	10	3	30%
Fall 2019	17	30	176%	2019-20	10	2	20%
Fall 2020	17	21	124%	2020-21	10	1	10%
Fall 2021	17	13	76%	2021-22	10	9	90%
Fall 2022	17	18	106%	2022-23	10	12	120%

2023 Program Productivity Report

The AAS in Paramedic program has exceeded enrollment and graduation projections for 2022-2023, and the most recent census data indicates an increase in program enrollment to 23 students for Fall 2023. Additional steps have been taken to improve the program by adding an additional instructor for the EMS programs and adding a new ambulance simulator to the Smyrna campus.

PELLISSIPPI STATE COMMUNITY COLLEGE

Architectural Design Technology, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2020	12	25	208%	2020-21	0	2	200%
Fall 2021	16	18	113%	2021-22	7	5	71%
Fall 2022	20	28	140%	2022-23	10	3	33%

Architectural Design Technology, AAS – 2023 Post-Approval Monitoring Report: Comments

A review of enrollments in the courses that are exclusive to the Architectural Design Technology (ARCT) program showed a healthy enrollment in these courses. Additional courses in the program that are shared with the Civil and Construction Engineering Technology program have even higher enrollments. Thus, the issue of low graduation rates of the ARCT program is not due to lack of enrollment in courses.

However, an area of concern is the offering of many of the courses only once a year. Due to issues relative to staffing and personnel resources, classes in the ARCT curriculum are offered only once a year and only 1 section of the course is typically offered. Students must be carefully advised to assure they remain “on-track.” Due to limited offerings, students may not always be able to take all the courses they should in a particular semester and thus are often taking more than 4 semesters to complete the program.

A review of courses was completed to better understand how to support students to completion/graduation. For instance, CAD 1300 (a second semester course) is offered on a more regular basis every semester with enrollments in the double-digits. ARCT 2990 is the Capstone course for the program and allows the student to either complete a capstone project or to complete an internship. This course is in the last semester of the curriculum, and it would be assumed that students enrolled in ARCT 2990 would then graduate at the end of the semester in which they are enrolled in ART 2990.

In addition to ARCT 2990 in the last semester, students also take ARCT 2710 and CADD 2110 during this final semester. And although the enrollments in ARCT 2710 and ARCT 2990 are within 1 student of each other, the enrollments in CADD 2110 far exceed the enrollments in ARCT 2710 and ARCT 2990. These 3 courses are only offered in the Spring and thus a student who does not take all 3 courses in the same Spring semester is then waiting a year to complete the courses of the final semester. This inconsistent following of the course sequencing attributes to the low graduation rates.

The program coordinator is investigating why students are not completing ARCT 2710 and ARCT 2990 at the same rate as CADD 2110. He is also investigating the possible need to offer the courses more than once a year. However as noted, ARCT 2710 was offered 2020 fall, 2021 spring and fall, and 2022 spring with low enrollment in all semesters. Typically, enrollments of at least 10 are required to assure a class is offered, so the offering of low-enrollment classes is not a viable option long-term. As part of the Reimagining the Community College initiatives, Pellissippi State is implementing a dedicated advising process which will support students to follow an intentional “guided pathway” to graduation.

Water Quality Technology, Associate of Applied Science (AAS)

Enrollment				Graduation			
Year	Projected	Actual	% Attainment	Year	Projected	Actual	% Attainment
Fall 2019	12	7	58%	2019-20	0	0	--
Fall 2020	20	18	90%	2020-21	7	2	35%
Fall 2021	29	17	59%	2021-22	12	5	42%
Fall 2022	n/a	14	--	2022-23	10	1	10%

Water Quality Technology, AAS – 2023 Post-Approval Monitoring Report: Comments

Student enrollment has picked up. The fall 2023 cohort is the largest starting cohort since the start of the program. However, many of the new and returning students are working full-time and taking classes part-time, which will delay graduation. Therefore, while the program is growing, it will take time for growth to be seen in the results.

This program combines many different skillsets and theoretical knowledge: chemistry, electrical engineering, mechanical engineering, microbiology, plus the water quality technology-specific courses. That breadth of STEM knowledge and experience is critical to students’ success, but the rigor cannot be ignored. The end result is that “toxic course combinations” cannot be avoided because so many of the courses are demanding, which is another reason part-time students are appearing to be more successful and stay in the program.

While the rigor is high, the results are compelling. 100% of our graduates have been employed upon graduation. 92% of our graduates have passed their state certification exam on the first try. The state averages a ~30% pass rate each year on these exams, including folks who have taken the exam multiple times. The program is providing a well-trained workforce that is needed even with the low numbers of students and graduates.

Earn and Learn: Workforce and Community Development has approached Water & Wastewater industry partners to explore an “Earn and Learn” model where students work as part-time employees 2-3 days per week and go to school full-time 2-3 days per week. This idea was shared during the fall 2023 advisory board meeting and met with interest. The program welcomes the help of Workforce & Community Development for recruitment as the college does not have a dedicated career technical recruitment person and most of the recruitment has been done by the program coordinator or a third-party friend of the program.

Summary

The current program results reflect the losses and challenges encountered during the pandemic. The efforts over the past couple of years appear to be helping the program turn a corner and be more productive both in terms of graduates and revenue. We will continue to look for ways to improve recruitment and enrollment into this important program.