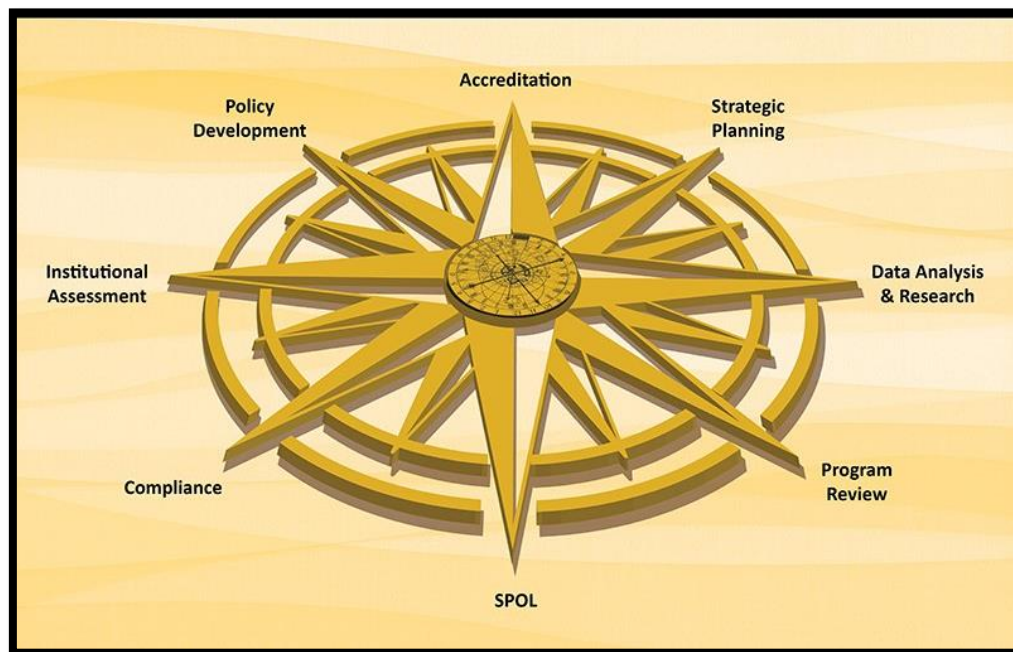


THREE RIVERS COLLEGE

Office of Institutional Effectiveness



Program Review Summary Reports

2021-2022

Program Review

Three Rivers College engages in a three-year program review cycle that includes two years of collection and the review occurring in the fall semester of the third year. The primary purpose of Program Review is to enhance the quality of our academic programs by having faculty identify areas for potential improvement. These areas include the review of student learning outcomes assessment, curriculum revisions, programmatic courses, enrollment and retention, the need for resources, and facilities. Program Review provides a mechanism for Program Managers to engage their faculty and advisory boards in long-range planning using data and information. Program Review data helps to establish priorities and goals for the program and provides the information required to support requests for resources needed to support those goals.

The following reports were completed in 2021-2022:

[Behavioral Health Support AAS](#)

[Nursing AAS](#)

[Paramedic AAS](#)

[Welding Engineering Technology AAS](#)



THREE RIVERS COLLEGE

PROGRAM REVIEW

Section I

Program Overview

<u>Program Title:</u>	Behavioral Health Support Program
<u>Dates of Review:</u>	2019 – 2021
<u>Dates of Last Review:</u>	N/A
<u>Faculty Contact:</u>	Corey Reynolds
<u>Email:</u>	creynolds@trcc.edu
<u>Phone:</u>	573-840-9631 ext. 8361

College Mission Statement:

Three Rivers College inspires, prepares, and empowers students to succeed through open access to high-quality learning opportunities that meet the needs of the communities we serve.

Program Purpose Statement:

The Associate of Applied Science in Behavioral Health Support (BHS) program prepares students for entry-level employment in the behavioral healthcare field upon successful completion. The program curriculum is designed to develop and enhance the student's cultural competency and ethical practice while promoting respect for others, appreciation of individual differences, and compassion. Students will learn about the interconnectedness of the helping fields as well as how to recognize the co-occurring risk factors of mental health and behavioral health while developing self-awareness, self-reliance, and self-confidence. The Behavioral Health Support Program prioritizes implementation of client-centered tailored treatment planning to support competent and ethical case management/care coordination.

Catalog Description:

Career and Technical Education. The Behavioral Health Support curriculum is designed to prepare students for entry-level positions in state, county, and local human service agencies. Graduates will incorporate the learned skills attributes in order to collaborate with mental health professionals and interact with clients with behavioral and mental health diagnoses.

Pre-requisites:

Cohorts begin in January.

The Behavioral Health Support Program does not have specific admissions requirements, but students are required to complete and submit an application for admission by the deadline each year. Courses are aligned and mapped to the program learning outcomes. Courses are sequenced to allow further study, so knowledge is scaffolded as a student progresses through their courses within the program. Student learning outcomes

presented by course are mapped to program learning outcomes. Outcomes will be reviewed and re-mapped as changes are made.

Each course in the program is necessary to build skills to achieve the program learning outcomes. While certain courses are built to achieve

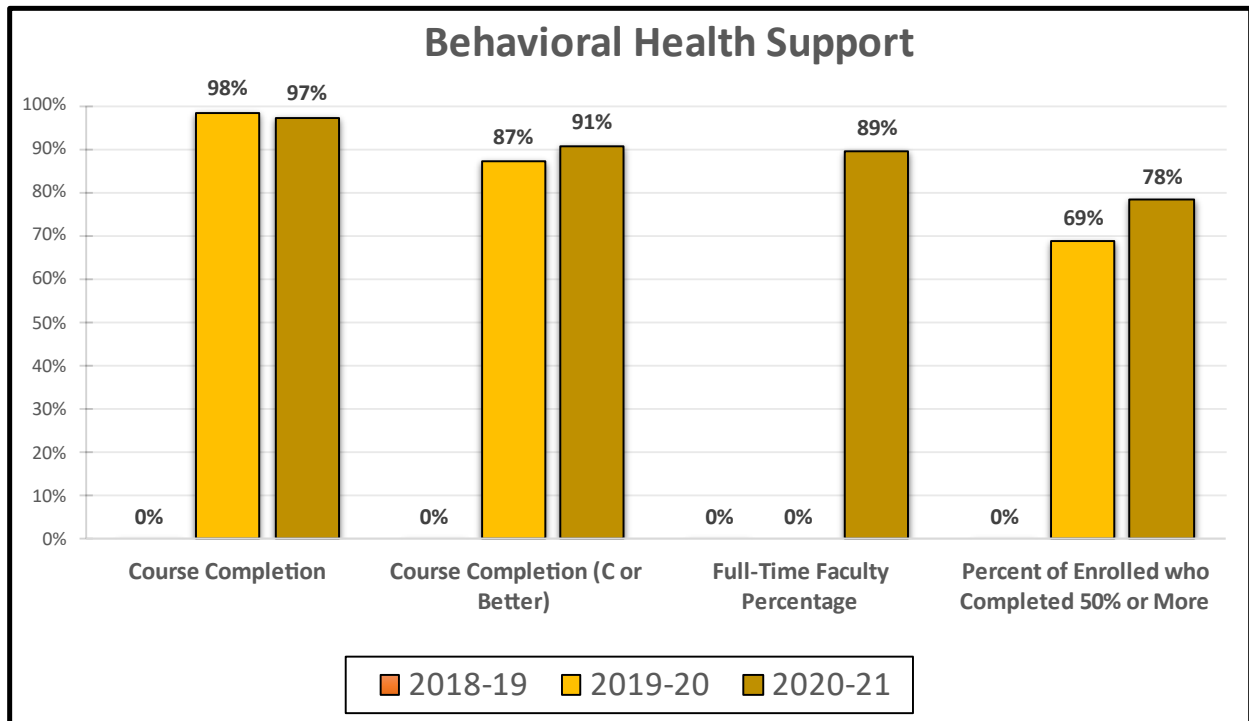
Program Costs:

Behavioral Health Support Program courses require the purchases or the rental of textbooks.

Section II

Current State of the Program

Enrollment Trends:



Description	2018-19	2019-20	2020-21
Course Enrollment (Duplicated)	0	63	110
Course Completion Total (Duplicated)	0	62	107
Course Completion	0%	98%	97%
Completion Total C or Better (Duplicated)	0	55	100
Course Completion (C or Better)	0%	87%	91%
Part-Time Faculty Credit Hours	0	193	36
Full-Time Faculty Credit Hours	0	0	305
Full-Time Faculty Percentage	0%	0%	89%
	18/FA	19/FA	20/FA
Declared Pathway	0	16	25
And Enrolled in at least one Pathway course	0	16	23
And Completed 50% or more of Pathway	0	11	18
Percent of Enrolled who Completed 50% or More	0%	69%	78%

Academic Year Graduates	0	0	2
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Programs Included: AAS.BHS

Course List: BHS-206, BHS-208, BHS-215, BHS-216, BHS-225, BHS-227, BHS-229, BHS-295, BHS-236, BHS-296, and PSYC-255

COURSE BREAKDOWNS

BHS-206 Course Data	20/SP	21/SP
Course Enrollment (Duplicated)	16	16
Course Completion Total (Duplicated)	16	16
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	13	12
Course Completion (C or Better)	81%	75%

BHS-208 Course Data	20/SP	21/SP
Course Enrollment (Duplicated)	16	16
Course Completion Total (Duplicated)	15	15
Course Completion	94%	94%
Completion Total C or Better (Duplicated)	13	12
Course Completion (C or Better)	81%	75%

BHS-225 Course Data	19/FA	20/FA
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Course Enrollment (Duplicated)	5	11
Course Completion Total (Duplicated)	5	11
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	5	11
Course Completion (C or Better)	100%	100%

BHS-227 Course Data	19/FA	20/FA
Course Enrollment (Duplicated)	5	11
Course Completion Total (Duplicated)	5	11
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	4	11
Course Completion (C or Better)	80%	100%

BHS-229 Course Data	19/FA	20/FA
Course Enrollment (Duplicated)	5	11
Course Completion Total (Duplicated)	5	11
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	5	11
Course Completion (C or Better)	100%	100%

BHS-236 Course Data	20/SP	21/SP
Course Enrollment (Duplicated)	4	11
Course Completion Total (Duplicated)	4	10
Course Completion	100%	91%
Completion Total C or Better (Duplicated)	4	10
Course Completion (C or Better)	100%	91%

BHS-295 Course Data	19/FA	20/FA
Course Enrollment (Duplicated)	5	11
Course Completion Total (Duplicated)	5	11
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	4	11
Course Completion (C or Better)	80%	100%

BHS-296 Course Data	20/SP	21/SP
Course Enrollment (Duplicated)	4	11
Course Completion Total (Duplicated)	4	10
Course Completion	100%	91%
Completion Total C or Better (Duplicated)	4	10
Course Completion (C or Better)	100%	91%

PSYC-255 Course Data	20/SP	21/SP
Course Enrollment (Duplicated)	3	12
Course Completion Total (Duplicated)	3	12
Course Completion	100%	100%
Completion Total C or Better (Duplicated)	3	12
Course Completion (C or Better)	100%	100%

Enrollment Evaluation:

The BHS Program Coordinator and the SMSS Department Chair have had an ongoing dialogue concerning offering all BHS courses in the evening to accommodate the schedules of the BHS students. The BHS Program Coordinator is also interested in offering a hybrid option. The BHS Program Coordinator and the SMSS Department Chair plan to meet with the Three Rivers College Chief Academic Officer to discuss these options. The BHS Program Coordinator is confident that offering alternative options will increase enrollment as well as promote retention for the BHS Program.

Progress & Completion:

There were 2 students who graduated from the BHS Program in May of 2020 and then there were 10 students who graduated the following May of 2021. Currently there are 9 active BHS students who the program's coordinator is confident will complete the program successfully and graduate.

Student Learning Outcomes Assessment:

The course learning outcomes were mapped to the program outcomes and assessment rubrics and process are in development.

Program Learning Outcomes Assessment:

The program's coordinator is currently building a BHS competency quiz that will be given to students at the start of the program, at the middle of

the program, and at the completion of the program. Each question of the quiz is being mapped to a program learning outcome (PLO).

Program Outcomes

- Practice culturally sensitive care with the appropriate standards of ethics within the helping fields.
- Evaluate the interconnectedness of the helping fields to include mental healthcare, behavioral healthcare, and human services for the purpose of patient/client-centered advocacy.
- Examine the relationship between behavioral health disorders and mental health disorders along with their risk factors.
- Implement tailored treatment plans to include appropriate helping responses for individuals in mental health crisis and/or with suicidal ideation to bring about crisis stabilization.

Job Placement:

We are seeing increased employment opportunity being offered to BHS students as demands to fill entry level positions continue to rise.

Continuous Improvement Planning:

Action Plan Objective	Timeline	Responsible Party	Resources Required
Formation of Advisory Committee	2020-2021	Corey Reynolds	None
Curriculum changes to improve program	2020-2021	Corey Reynolds	None
Build relationship with students to encourage program completion	Ongoing	Corey Reynolds	None
Program promotion to increase enrollment	Ongoing	Corey Reynolds	None
Network with community partners to solicit support for BHS Program and to build strong community partnerships	Ongoing	Corey Reynolds	None

Section III

Analysis of the Program

Articulation:

The BHS Program currently has articulation agreements with 4 agencies that offer time and space for BHS students to complete their field practicum requirements. The program began with articulation agreements with Bootheel Counseling and Family Counseling Center (FCC). Due the demands of requiring a more diversified practicum experience for BHS students the program now has 2 additional articulation agreements for practicum placement. Missouri Department of Social Services, Butler County Children's Division and Specialty Products and Services entered into articulation agreements in 2021 expanding opportunities and experiences for BHS students. There is a fifth articulation agreement in the negotiation phase with Southeast Missouri Behavioral Health.

Transfer Rates:

Not applicable

Changes in Curriculum:

2018-2019 Curriculum Changes

- Development of the BHS Program.
- Addition of Course – BHS 206: Introduction to Behavioral Health Support
- Addition of Course – BHS 208: Legal and Ethical Issues
- Addition of Course – BHS 215: Wellness Coaching
- Addition of Course – BHS 216: Systems of Care/Support
- Addition of Course – BHS 225: Substance Use Disorders
- Addition of Course – BHS 227: Diagnosis of Identified Populations

- Addition of Course – BHS 229: Conflict Resolution
- Addition of Course – BHS 236: Evidence-Based Treatments
- Addition of Course – BHS 295: Behavioral Health Support Clinical Practicum I
- Addition of Course – BHS 296: Behavioral Health Support Clinical Practicum II

2019-2020 Curriculum Changes

- BHS 206: Introduction to Behavioral Health Support – textbook change.
- BHS 208: Legal and Ethical Issues – textbook change.
- BHS 215: Wellness Coaching – textbook change.
- BHS 225: Substance Use Disorders - textbook change.
- BHS 227: Diagnosis of Identified Populations - textbook change.
- BHS 229: Conflict Resolution - textbook change.
- BHS 236: Evidence-Based Treatments - textbook change.

2020-2021 Curriculum Changes

- BHS 206: Introduction to Behavioral Health Support – course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.
- BHS 206: textbook change.
- BHS-216: Systems of Care – textbook added to course. Prior to this change there wasn't a textbook adapted for the course.
- BHS 225: Substance Use Disorders - course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.
- BHS 229: Conflict Resolution - course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.

- BHS 236: Evidence Based Treatments - course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.
- BHS 236: Evidence-Based Treatments - textbook change.
- BHS 295: Behavioral Health Support Clinical Practicum I - course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.
- BHS 296: Behavioral Health Support Clinical Practicum II - course description updated to reflect program expectations and standards and to reflect DSM-5 terminology more accurately.
- AAS – Behavioral Health Support – Program Learning Outcomes (PLOs) were drafted and adapted for the program defining the overall purpose and fundamental goals of program completion.

External Needs Assessment:

The demand to fill positions in the behavioral healthcare field continues to rise increasing the support for a program that qualifies students to accept case management or care coordination roles.

<https://www.bls.gov/ooh/community-and-social-service/social-and-human-service-assistants.htm#tab-1>

Adequacy of Facilities, Equipment, and Technology:

All BHS Program courses are offered in the Interactive Television (ITV) modality. The BHS instructor has experienced and witnessed several technical difficulties and has often had to rely on external site location staff and ITV staff to help resolve issues. Technical issues have often influenced lecture time and other classroom dynamics.

Impact of Resources to Support Teaching and Learning:

Currently the BHS Program has an adequate number of instructors to provide instruction. Looking towards the future the BHS Program Coordinator is optimistic that the program will grow and flourish warranting the assistance of adjunct staff.

Evaluation of Resources to Support Teaching and Learning:

There is adequate resources that strongly support teaching and learning for the BHS Program. The current BHS instructor would appreciate the college's consideration of installing a new Smartboard in the ITV classroom where the BHS courses are held.

Professional Development:

The program's manager will be seeking support to attend an annual conference hosted by the Missouri Department of Mental Health, Division of Behavioral Health to maintain professional knowledge base and skills. The program's coordinator holds a Master's degree in Marriage and Family and is pursuing their doctoral studies. The program's manager is an appointed member of the Missouri State Advisory Council for the Missouri Department of Mental Health (DMH), Division of Behavioral Health (DBH). The program's coordinator is set to serve on the Missouri Student Mental Health Taskforce beginning January 2022 working with state departments of Elementary and Secondary Education (DESE), Higher Education & Workforce Development (DHEWD), and Mental Health (DMH). The program's coordinator also serves as a Court Appointed Special Advocate (CASA) for the Missouri 36th Judicial Circuit and has received training through the organization to certify him. All faculty who offer online instruction have passed the Quality Matters (QM) certification necessary to teach online courses.

Eternal Accreditation and Documentation:

Not applicable

Progress Report:

Not applicable

Section IV

External Review of the Program

Executive Summary:

The Behavioral Health Support Program has many strengths and areas that could be approved. One strength of the Behavioral Health Support Program is centered around cohort-based learning which offers a learning approach where peer collaboration is emphasized. Cohort-based learning offers a sense of community and allows for students to better support one another when completing assignments during their practicum experience(s). There has been and continues to be changes to curriculum to improve content and assure that the content that is being taught is relevant and current. There is also an emphasis on assuring that curriculum remains unbiased allowing for students to formulate their own ideas and opinions to develop into the practitioners that they are intended to become.

The program exposes students to not only the harsh realities of what they will encounter in the field but also to the rewarding challenges of becoming a behavioral healthcare professional. The classroom setting will continue to be student-centered allowing for maximum engagement

and student-led discussion. The courses will continue to offer challenging content that trains students in how to approach difficult realities that they will face as behavioral healthcare professionals. Multi-cultural competency, trauma-informed care, and values management will continue to be emphasized in order to promote professional development of students and prepare them to enter the field of behavioral healthcare.

The Behavioral Health Support Program began with support from grant funding and is now a fulltime program. Moving forward there will be a greater emphasis on retention as well as enrollment by further promoting the BHS Program abroad. The continued demand of reflecting the Diagnostic and Statistical Manual of Mental Disorders will continue to be held with the greatest respect to reflect professional competency. The program will continue to be accountable to the Missouri Coalition for Community Behavioral Healthcare as a governing entity providing accountability and oversight.

Advisory Board Feedback:

The following represents feedback from one of the four advisory board members: Not only am I on the Advisory Board for the Behavioral Health Support program, but I am also the Clinical Officer of the Community Psychiatric programs at FCC Behavioral Health. I have been very pleased with the students and graduates in this program. As an employee of a community mental health agency, it has been wonderful getting to know the work ethic of the students during the practicums. The graduates have required less onboarding and initial training than other new employees because of the Behavioral Support program. We have found the graduates have a better foundation when entering the workforce and we are hoping that in turn helps to maintain employment and reduce turnover.

Section V

Final Report of Findings

The final stage of program review is reporting your findings to the Cabinet and Faculty-at-Large. This will be coordinated by the Office of Institutional Effectiveness.



THREE RIVERS COLLEGE

PROGRAM REVIEW TEMPLATE

[Section I](#) – Program Overview (Weeks 1-4 of the term)

[Section II](#) – Current State of the Program (Weeks 5-8 of the term)

[Section III](#) – Analysis of the Program (Weeks 9-12 of the term)

[Section IV](#) – External Review of the Program (End of second semester)

[Section V](#) – Final Report of Findings (TBD)

Section I

Program Overview

Program Title:

Associate of Applied Science (AAS) in Nursing

Dates of Review:

Initial Review: January 2016

Last Review: January 2019

Current Review Fall 2021

Faculty Contact:

Staci Foster

Email:

stacifoster@trcc.edu

Phone: 573-840-9672

VoIP Extension: 8320

College Mission Statement:

Three Rivers College inspires, prepares, and empowers students to succeed through open access to high-quality learning opportunities that meet the needs of the communities we serve.

Program Purpose Statement:

Program Mission Statement: The Associate Degree Nursing Program at Three Rivers College prepares students to be professional nurses to meet the needs of the communities we serve.

The mission statement of the Nursing program closely reflects the mission statement of the College to provide “high-quality” instruction to “meet the needs of the communities we serve.” The faculty review the program mission statement and its alignment with the College’s mission statement every three years or as needed.

Catalog Description:

Place an “X” in the box if this section is identical to the Program Purpose Statement.
The current catalog description is located on the college website and may be found by clicking [here](#).
Please indicate if the information is accurate and understandable.

The purpose of this nursing program is to prepare students to achieve an Associate of Applied Science degree, to apply for licensure by examination * as a registered nurse, and to use the nursing process in providing safe and effective nursing care for clients in structure primary or secondary care settings.

The * denotes information further down on the page regarding Missouri Statutes 335RSMo 2015 the Nurse Practice Act. The statute details that graduation from a nursing program does not guarantee to license as a nurse in the state of Missouri.

Pre-requisites:

Indicate the current pre-requisites to include testing requirements for admission into the program (if applicable).

- 1. Do the prerequisites continue to be needed? Do they need to be changed? Have changes occurred?*
- 2. Are they imposed by an external agency of some kind, or are they self-imposed?*
- 3. If the second, what data demonstrates or supports the viability of the prerequisites?*

1. AAS in Nursing Pre-Requisites

AAS in Nursing Pre-Requisites for application include:

1. Cumulative GPA of 2.0 or higher, or if current high school student with no college GPA, rank in the upper one third of their high school graduating class.
2. Satisfactory performance on the HESI A2 Admission Examination of 75% or higher.

AAS in Nursing Pre-Requisites to begin program include:

1. Completion of required general education courses including:
 - a. BIOL 231: Anatomy and Physiology I*
 - b. MATH 161: Mathematical Reasoning and Modeling*
 - c. ENGL 111: College Writing
 - d. GOVT 121: National and State Government
 - i. GOVT 290: Civics Examination

*Must be completed with a B or higher grade

2. The pre-requisites for the program are not directly imposed by the Missouri State Board of Nursing. However, the Missouri Minimum Standards for Professional Nursing state, "Admission and readmission criteria shall reflect consideration of 1) Potential to complete the program; 2) Ability to meet the standards to apply for licensure (see sections 335.046.1 and 335.066 RSMo), (2018, p. 10-11). The current pre-requisites and program structure have received Missouri State Board of Nursing approval.
3. Faculty monitor student success and program completion to determine if admission criteria is set appropriately. Program completion rates for the past three years are: 70.4% in 2018, 75% in 2019, and 67.4% in 2020 (decrease related to COVID-19 remote instruction). The program completion rate is above the program's benchmark of 57% and in line with the 70% expected program completion for nursing programs.

Program Costs:

Are there additional costs and/or fees for students that are associated with the program beyond the institutional tuition and common fees? These are program-specific cost incurred by students.

With the move to the Tier Tuition structure the cost of the program is represented differently than in the past. The AAS in Nursing program is in the Tier 4 category which adds an additional \$205/credit hour to the base tuition cost. The Tiered structure allows for additional costs to be picked up by the program instead of charging students separately, i.e. liability fee, uniform cost.

Generic AAS in Nursing program cost: \$20,422 (in-district), \$23,005 (out-of-district)

AAS LPN-RN Bridge program cost: \$13,885 (in-district), \$15,771 (out-of-district)

Comparative program costs:

- State Fair Community College’s LPN-RN Bridge program cost:
 - \$14,979 (in-district)
 - \$17,473 (out-of-district)
- Missouri State University-West Plains program cost:
 - AAS in Nursing: \$15,939 (in-district)
 - AAS LPN-RN Bridge: \$11,267 (in-district)

Section II

Current State of the Program

Enrollment Trends:

a. *Describe trends in program such as:*

- a. *Admitted vs. Applicants*
- b. *Course enrollments vs. course [capacity](#)*
- c. *Full-Time Enrollment (FTE) vs. Part-Time Enrollment (PTE)*

Cite all quantitative data.

Associate of Applied Science in Nursing Enrollment Trends

- a. Cohorts admitted vs. Applicants
 - i. Sikeston LPN-RN Bridge program—May 2021 (December 1, 2019 Deadline)
 - 1. 80 Applicants, 41 qualified applicants
 - ii. Poplar Bluff Day Program—May 2021 (March 1, 2019 Deadline)
 - 1. 83 Applicants, 67 qualified applicants
 - iii. Poplar Bluff Evening Program—December 2021 (May 1, 2018 Deadline)
 - 1. 61 applicants, 52 qualified applicants
 - iv. Poplar Bluff LPN-RN Bridge Evening program—December 2020 (March 1, 2019 Deadline)
 - 1. 29 applicants, 17 qualified applicants
 - v. Poplar Bluff LPN-RN Bridge Day program---May 2021 (December 1, 2019 Deadline)
 - 1. 19 applicants, 10 qualified applicants
 - vi. Poplar Bluff Day Program—December 2022 (Delayed July 1, 2020 Deadline)
 - 1. 81 applicants, 60 qualified applicants

- vii. Poplar Bluff LPN-RN Bridge Evening program---December 2021 (May 1, 2020 Deadline)
 - 1. 32 applicants, 19 qualified applicants
- viii. Poplar Bluff LPN-RN Bridge Evening program—December 2022 (March 1, 2021)
 - 1. 26 Applicants, 22 qualified applicants
- ix. Sikeston LPN-RN Bridge program—May 2022 (November 1, 2020 Deadline)
 - 1. 51 Applicants, 38 qualified applicants
- x. Poplar Bluff Day Program—May 2023 (March 1, 2021 Deadline)
 - 1. 71 applicants, 55 qualified applicants
- b. Course enrollment vs. course capacity
 - i. Fall 2021 Course Capacity
 - 1. NURS 116: 30 students enrolled, capacity 30 students
 - 2. NURS 129: 24 students enrolled, capacity 30 students
 - 3. NURS 108 Bridge program: 20 students enrolled, capacity 20 students
 - 4. NURS 238: 20 students enrolled, capacity 30 students
 - 5. NURS 219 Sikeston: 25 students enrolled, capacity 26 students
- c. Full-time Enrollment vs. Part-time Enrollment
 - i. All nursing students are considered enrolled full-time in the nursing program. Each semester has a minimum of 12 credit hours; however, there are two semesters that have less than 12 credit hours of nursing courses. Those semesters are augmented by required general education courses. If a student has already completed those courses, they may fall below the minimum 12 credit hours needed to be a full-time student.

Enrollment Evaluation:

What changes could be implemented, including changes to course scheduling (times/days/duration/[modality](#)/number of sections), marketing, and [articulated credits](#) that may improve these trends?

Enrollment is at maximum capacity at admission for the program. Program completion rates are maintaining around the 70% mark appropriate for associate degree nursing programs (70.4% in 2018, 75% in 2019, and 67.4% in 2020). The program did move the generic AAS-Nursing Evening program option to a LPN-RN Bridge only option.

The removal of a second generic program option is anticipated to increase the number of applicants to the generic AAS-Nursing day program and the two Practical Nursing program options. Application numbers were increasing significantly for the LPN-RN Bridge program evening option since the addition of two LPN programs at Three Rivers (Sikeston and Poplar Bluff). The increase in applications and a shortage of qualified nurse educators led to the decision to convert the evening program to a LPN-RN Bridge only option.

Progress & Completion:

1. *What is the benchmark for program completion? Please explain the rationale for this benchmark.*
2. *Are there identifiable points where attrition increases?*
3. *Explain any significant findings in different modalities, locations, and settings.*
4. *Describe trends in student success and retention disaggregated by: ethnicity, gender, age, and enrollment status, settings. Cite quantitative data and specific tables from the data packets.*
5. *Evaluation: Based on these trends, what do you feel are significant factors or barriers influencing student success in your courses and program? What changes (e.g. in curriculum, pedagogy, scheduling, modality) could be implemented to improve these trends?*
 1. What is the benchmark for program completion?
 - a. The program has set a benchmark of 57% of students will complete the program in 150% of the required time. The faculty reviewed the data as well as best practices to determine an evidence-based completion rate for the program. Data shows associate degree nursing programs retention rates ranging from 50-70%. The National Council of State Board of Nursing showed a 57% retention for associate degree programs as an average. The faculty determined to use this average as the benchmark.
 - i. Program completion rates: 70.4% in 2018, 75% in 2019, and 67.4% in 2020
 2. Are there identifiable points where attrition increases?
 - a. The program has identified the second semester as the highest attrition rate point in the semester. This is the first semester students have two nursing courses going at all times (one 16-week course paired with one A session 8-week course and one B session 8-week course). The increased load on the students has been noted as a contributing factor for students' attrition in this semester.

3. Explain any significant findings in different modalities, locations, and settings.
 - a. The only modality for the program is face-to-face. The only significant finding is that the LPN-RN Bridge students tend to have a higher completion rate than the generic students. The faculty believe this is related to several factors: understanding the profession before entering the program, a promotion already lined up once RN license achieved, and previous nursing school experience.
4. Trends in student success and retention.
 - a. Male vs. Female.
 - i. Of the 81 students in the program for 2020-21 academic year; 71 (87.6%) were female and 10 (13.4%) males.
 - ii. In 2020, there were five (15.3%) males that were unsuccessful and 30 females (85.7%). Similar attrition rate percentages as seen in enrollment for male vs. female.
 - b. Race.
 - i. For the 2020-21 academic year; 3 black, 2 unknown, 76 white.
 - ii. For the 2020-21 academic year, attrition was 33 white, 1 black, and 1 unknown.
 - c. Age.
 - i. Average age of student in the RN program in 2020-21 was 28.
 - ii. Age was not obtained on students that were unsuccessful for analysis.
5. Evaluation: Based on these trends, what do you feel are significant factors or barriers influencing student success in your courses and program? What changes (e.g. in curriculum, pedagogy, scheduling, modality) could be implemented to improve these trends?
 - a. Data shows that student attrition rate mirrors enrollment data. No additional program changes are recommended based on the data.

Student Learning Outcomes Assessment:

- 1. Are all program-specific course-level student learning objectives being systematically and regularly assessed? Describe your assessment plan.*
- 2. Do the course offerings provide a clear path to achieving the program learning outcomes? Are the courses sequenced in the most effective manner?*
- 3. Does each class have a specific role to play in helping students achieve the program learning outcomes? Is unnecessary duplication of knowledge and/or skills avoided?*
- 4. What improvements in your courses have been implemented through student learning outcome assessment? How has student learning been improved through implemented changes?*

1. Assessment Plan. The program has defined five program outcomes. Each course has course outcomes developed that have been mapped back to the program outcomes. Students are evaluated for grades with examinations, clinical performance, and activities. The program collects data in the second and fourth semesters regarding student learning. This data is then analyzed and used to implement changes to the nursing program to improve student learning. The data and analysis can be found in the Student Learning Outcomes report completed annually.
2. The courses are sequenced following Benner's Novice to Expert model. The first semester courses lay a foundation for the remainder of the program. Each semester the Bloom's taxonomy level increases for the course outcomes to eventually reach the Analysis/Synthesis level required at the end of the program.
3. Each course in the nursing program is designed to move students toward achieving the program outcomes. Duplication is not present in the curriculum unless it is determined to be necessary for student learning. For example, the clinical judgment concept is taught in NURS 109: Critical Thinking in Nursing and again in NURS 245: Transition to Professional Nursing. In NURS 109, the concept of clinical judgment is taught by introducing the nursing process. In NURS 245, the concept of clinical judgment builds on the nursing process exemplar to emphasize higher-level areas of the concepts of delegation and prioritization.
4. Course level changes:
 - a. Add a HESI Review assignment into NURS 219: Medical Surgical Nursing II.
 - b. Adapt in-class activities in NURS 238: Medical Surgical Nursing III's Palliative Care lesson to increase student learning.

- c. Add the Mid-America Transplant modules to NURS 239: Preceptor course to discuss therapeutic communication regarding end-of-life decisions.
- d. Add blood administration to the NURS 219: Medical Surgical Nursing simulation, Weston.

Program Learning Outcome Assessment:

1. *Describe your program-level outcomes assessment plan.*
 2. *What improvements have been implemented as a result of PLO assessment?*
 3. *Is the program arranged so that a full-time student can complete the program in two years or less regardless of modality, location, or setting? If not, what changes could be implemented to facilitate this goal?*
 4. *What specific needs does the program fill at the institution that are not filled by similar programs?*
1. The nursing program's curriculum is based on the NCLEX-RN test plan. The program has five program outcomes that are used to create the entire curriculum including course outcomes. Each of the NCLEX-RN test categories have been mapped to a specific program outcome(s). The faculty then collect data from the HESI proctored examinations throughout the program to analyze for program evaluation.
 2. Based on the program assessment data review, the faculty made several changes to the curriculum and instructional methods detailed below:
 - a. Review of the NCLEX-RN test plan categories detailed on program's lesson plans for accuracy.
 - b. Incorporate the NCLEX-RN activity statements into the clinical environment.
 - c. Place an emphasis on the NCLEX-RN test plan in both the clinical and classroom environments.
 - d. Incorporate NCLEX-RN style questions into the classroom.
 - e. Create a realistic NCLEX testing environment for the HESI proctored examinations.
 - f. Mandate Version 1 and 2 for all HESI proctored examinations for all students.
 - g. Require a rationale review for all HESI proctored examinations for any student that scores less than 850.
 - h. Create a HESI Workshop to discuss the importance of HESI and how to use their results for improvement.
 - i. Developed a HESI remediation form to be used by students in the Student Retention and Progression Plan.
 - j. Faculty will review their cohort's HESI scores at the beginning of each semester.

- k. Add a component to the Test Taking Workshop that discusses breaking down a lesson plan.
 - l. Collect data that focuses on students that score less than 650 on HESI proctored examinations.
 - m. Pilot tutor hours specific to HESI improvement.
 - n. Focus on incorporating the interrelated concept of Psychosocial Integrity throughout the medical-surgical clinical experiences.
 - o. Professional development regarding mental health nursing for faculty.
 - p. Create a new simulation that includes a mobility focus.
3. The AAS-Nursing program is arranged so that a student can complete it in five semesters or two years. The AAS-LPN-RN Bridge program is arranged so the student can complete it in four semesters or a year and a half.
 4. The AAS-Nursing and AAS-LPN-RN Bridge programs are the only two-year nursing programs at the institution. The program is unique in its offerings and is not replicated at the institution.

Job Placement:

1. *What is the program's job placement rate in the appropriate field of study?*
 2. *Does the labor market indicate enough need for the program? What are future trends, opportunities, and challenges?*
 3. *Are graduates sufficiently prepared to enter the workforce based on the feedback from employers and advisory board?*
 4. *What activities does your program participate in to assist students with job placement?*
1. Program's Job Placement rate.
 - a. May 2019 Poplar Bluff: 19/20=95%
 - b. May 2019 Sikeston: 18/20=90%
 - c. December 2019: 24/25=96%
 - d. May 2020 Poplar Bluff: 20/20=100%
 - e. May 2020 Sikeston: 18/18=100%
 - f. December 2020: 20/22=90.9%
 2. According to the U.S. Bureau of Labor Statistics the job outlook for Registered Nurses for 2019-29 shows a 7% growth rate. The local area is currently experiencing a nursing shortage related to COVID-19.
 3. The program seeks feedback from employers via an Employer Satisfaction survey. The survey is sent 6-12 months following graduation to each graduates' employer. Results are as follows:

- a. May 2019 Poplar Bluff: 98% of responses were Above Expected Level/Functions Independently/Expected Level (13 Employers responded)
 - b. May 2019 Sikeston: 96.8% of responses were Above Expected Level/Functions Independently/Expected Level (2 Employers responded)
 - c. December 2019: 100% of responses were Above Expected Level/Functions Independently/Expected Level (8 Employers responded)
 - d. May 2020 Poplar Bluff: 100% of responses were Functions at Expected Level or higher (4 Employers responses)
 - e. May 2020 Sikeston: 98% of responses were Functions at Expected Level or higher (4 Employers responses)
4. The program allows healthcare facilities to come into the NURS 245: Transition into Professional Nursing course to discuss employment opportunities with the graduating cohorts. Additionally, the program posts any job openings, externship, RN-BSN offers/openings to Blackboard for the graduating cohorts.

Continuous Improvement Planning:

How will you address the opportunities for improvement that you identified in the above sections?

Identify timelines for implementation, responsible party, and resource requirements.

Action Plan Objective	Timeline	Responsible Party	Resources required
Increase qualified applicants by 10% for the LPN-RN Bridge evening program option	FY22	Dr. Foster Faculty Communications Department	Facebook Ads Flyers to put at local healthcare facilities

Section III

Analysis of the Program

Articulation (If applicable):

1. Identify articulation agreements with other institutions.
2. How often are these agreements updated, reviewed, renewed? When was last update, review?
3. What programmatic changes are needed to accommodate articulation agreements?
4. Are there any opportunities for new or additional agreements?

1. The program has articulation agreements with Central Methodist University, Indianan Wesleyan University, Hannibal LaGrange University, Southeast Missouri State University, and the University of Wisconsin.
2. The program's articulation agreements are updated anytime there is a curriculum change. The current articulation agreements were updated in 2016-2017.
3. There are currently no curriculum changes needed for articulation agreements.
4. There are always opportunities to extend more RN-BSN articulation agreements. However, since the program is accredited, students are eligible to attend almost any RN-BSN program.

Transfer Rates (If applicable):

1. *What are the transfer rates of graduates of the program?*
2. *What are the main receiving schools of our graduates?*
3. *What are the barriers to transferring from this program?*

Transfer rates are not applicable to this program as it is an Associate of Applied Science degree that is created to lead to employment.

Changes in Curriculum:

List any changes that have occurred in your program's curriculum, scheduling, or [modality](#). Explain the rationale for these changes. This will include both formal and informal changes that have been made. Formal changes would have gone through curriculum committee. Informal changes may include changes in techniques, methodology, etc. that were significant, but did not require committee approval.

The AAS-Nursing program has had several curriculum changes since 2018. Changes include:

- NURS 245: Transition into Professional Nursing—Revision of Course. Moved the course back to face-to-face modality from hybrid modality. Embedded an online review course in the course. Added simulations into the course.
- NURS 116: Fundamentals of Nursing—Revision of Course. Changed the breakdown of clinical hours to 81.25 hours in the Laboratory and 87.25 hours in the clinical experience.
- NURS 108: LPN-RN Bridge course---Revision of Course. Moved the course offering from summer to spring semester. Moved the course in the program sequence from summer to spring to allow for full resources for students and full-time faculty to teach in load.
- NURS 116: Fundamentals of Nursing/NURS 108: LPN-RN Bridge: changed the course pre-requisite from MATH 103/153 to MATH 161 to match the new math requirement established in 2018-19.

- Moved the program's admission examination from the NLN PAX-RN examination to the HESI A2 admission examination beginning in 2021.

External Needs Assessment:

Describe how changes in community needs, workforce needs, technology, licensing, or accreditation affect your program. (Programs should identify the dates of their advisory group meetings and attach meeting minutes since the last review separately.)

1. *Does the advisory committee meet regularly?*
 2. *How do the external factors impact the curriculum?*
 3. *How does your Advisory Board adequately represent the community and workforce needs?*
1. The AAS-Nursing program advisory board meets annually to review program information.
 2. The AAS-Nursing program is regulated by the Missouri State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN) which both require the program meet a set of standards/criteria. Availability of clinical space impacts the curriculum.
 3. The advisory board is made up of a variety of representatives including clinical agencies, employers, past graduates, and a local physician.

Adequacy of Facilities, Equipment, and Technology:

Describe the state of facilities and equipment used by the program. Explain by what criteria and with what process the department evaluates its facilities and equipment.

1. *Are facilities safe and sufficient to support and assure the integrity and quality of the program? Is access assured for all facilities?*
 2. *Is equipment adequate?*
 3. *Is it sufficiently modernized?*
 4. *What recommended program improvements could be made through upgrades to facilities, equipment and/or technology?*
 5. *Is all facilities, equipment, and technologies in compliance with regulatory agencies and standards?*
1. The facilities are safe and support the program. In Poplar Bluff, the program is housed in the Plaster Free Enterprise Center that contains master classrooms, clinical laboratories, simulation laboratory, and faculty offices. The building is centrally located on campus with locking exterior doors. Each classroom contains a telephone for campus-wide alerts. As well, in 2021 the building has been equipped with internal speakers to announce campus-wide alerts. The facility does not have cameras for security. In Sikeston, the program is housed on the third floor of the

Sikeston building. The program has a master classroom, computer lab, clinical laboratory, simulation laboratory, and faculty offices.

2. The equipment is updated annually as needed through the Enhancement grant. The equipment for both locations is adequate with requests submitted annually by the faculty to purchase new or replace equipment.
3. The program's facility and equipment are modern. The equipment is placed on an obsolescence plan to allow for purchase of new equipment on a set timeline.
4. At this time, there are no improvements that need to be made to equipment. The Poplar Bluff and Sikeston location need to have cameras added for security purposes. The Poplar Bluff program would like to have the smart TVs installed in the classroom to implement instructional methods specific to that resource.
5. All equipment and supplies meet the regulatory body's standards.

Impact of Resources to Support Teaching and Learning:

1. *Does the institution provide adequate resources to support teaching and learning in the program?*
 - a. *Faculty and Staff*
 - b. *Revenue vs. Expenditures*
 - c. *Disposable resources*
 2. *Are there any areas within the program that could reduce expenses for students?*
 3. *For CTE programs, is the cost of the program proportionate to the eventual prevailing wages?*
 4. *Does the program have an [obsolescence plan](#) for large equipment purchases?*
1. The program has adequate resources to support teaching and learning.
 - a. The program moved to an LPN-RN Bridge program in the evening from a generic RN program because there was not sufficient faculty to support the program. There are three full-time faculty in Sikeston, five full-time faculty in Poplar Bluff for the day program, and two full-time faculty for the Poplar Bluff evening programs. The program maintains a 6:1 student:faculty ratio in the clinical environment for safety and student learning.
 - i. Faculty salary is a barrier to recruiting qualified faculty members to the program.
 - b. The program has a part-time Secretary in Poplar Bluff and Sikeston to assist the faculty. The program has a Senior Administrative Assistant for the Department Chair that is currently vacant.
 2. There are no areas to reduce expenses for students. The program is conscientious about increasing the cost of the program for students. The recent move to the resource fee allows the

students to break the cost of textbooks out over four semesters instead of all in the first semester which is a benefit.

3. The cost of the AAS-Nursing program is \$20,422 (in-district), \$23,005 (out-of-district). The cost of the AAS-LPN-RN Bridge program is \$13,885 (in-district) and \$15,771 (out-of-district).

According to the U.S. Bureau of Labor, Registered Nurse's median pay for 2020 is \$75,330/year or \$36.22/hour (<https://www.bls.gov/ooh/healthcare/registered-nurses.htm>).

4. The program has an obsolescence plan in place for larger equipment purchases. The plan is reviewed annually for budget requests.

Evaluation of Resources to Support Teaching and Learning:

What recommendations for resources that impact teaching and learning could be made based on the information above?

Both the Poplar Bluff and Sikeston program locations need security cameras installed for safety. Purchase and installation of smart TVs for the Poplar Bluff location would increase faculty's instructional methods. Increase faculty salary to reflect a more competitive wage to practice improving faculty recruitment and retention.

Professional Development:

Identify any professional development activities completed by instructors teaching within the program.

1. *Identify any CEU or professional development requirements in order to maintain certification/licensure.*
2. *Identify any barriers to obtaining professional development requirements or remaining current within the field of study.*

1. There are no CEU or professional development requirements in order to maintain certification/licensure in the state of Missouri. Per ACEN standards, faculty are to maintain competency in practice and education environments, so the program hosts monthly professional development workshops.
2. Professional development focused on their role as nurse educators is plentiful as the program offers monthly workshops and provides access to Nurse Tim webinars. Professional development focused on their role as practicing RNs is harder for some faculty to receive. The program has focused some monthly offerings around practice issues. There are no known barriers to achieving any professional development.

External Accreditation & Documentation:

If an external accreditation is required for the program, please provide the following information and documentation:

1. *Name of accrediting organization*

2. *Date of last visit*
3. *Date of next upcoming visit*
4. *Are any reports, recommendations, etc. required for the program at this time?*

If you have received any notification, response, etc. from the accreditors, please provide a copy of the correspondence.

The AAS-Nursing program is accredited by the Accreditation Commission for Education in Nursing.

- Last visit: September 2017
- Next visit: Fall 2023
- The program provides an annual report as required by ACEN standards. There are no follow-up reports pending.

The AAS-Nursing program is fully approved by the Missouri State Board of Nursing.

- Last visit: September 2017
- Next visit: Fall 2022
- The program provides an annual report as required by Minimum Standards. There are no follow-up reports pending.

Progress Report:

Please discuss all recommendations received on your last program review or program accreditation visit and report on progress made on previous action plans and toward your strategic goals.

ACEN and the Missouri State Board of Nursing have placed a focus on program completion rates for the program. In 2016, the program completion rate was at 56.9%. Program completion rates have been consistently near or above 70% for the past three years based on the focus the program put on improving them.

Section IV

External Review of the Program

This section is to be completed by the end of the second semester of Program Review. It is based on the previous sections of program review being shared with the Program Advisory Board. The valuable feedback collected from the Program Advisory Board should help finalize this section.

Executive Summary:

Please summarize your program's strengths, challenges, opportunities, and continuous improvement plan.

Section V

Final Report of Findings

The final stage of program review is reporting your findings to the Cabinet and Faculty-at-Large. This will be coordinated by the Office of Institutional Effectiveness.



THREE RIVERS COLLEGE

PROGRAM REVIEW TEMPLATE

[Section I](#) – Program Overview (Weeks 1-4 of the term)

[Section II](#) – Current State of the Program (Weeks 5-8 of the term)

[Section III](#) – Analysis of the Program (Weeks 9-12 of the term)

[Section IV](#) – External Review of the Program (End of second semester)

[Section V](#) – Final Report of Findings (TBD)

Section I

Program Overview

Program Title:

Paramedic, Associate of Applied Science and One-Year Certificate

Dates of Review:

Initial Review Fall 2016

Last Review Fall 2019

Current Review Fall 2021

Faculty Contact:

Tami Cunningham

Email:

tcunningham@trcc.edu

Phone: 573-840-9672

VoIP Extension: 8325

College Mission Statement:

Three Rivers College inspires, prepares, and empowers students to succeed through open access to high-quality learning opportunities that meet the needs of the communities we serve.

Program Purpose Statement:

A program purpose statement is a declaration that summarizes the goals and intentions of the program. This could be the program mission statement.

To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

Catalog Description:

Place an "X" in the box if this section is identical to the Program Purpose Statement.
The current catalog description is located on the college website and may be found by clicking [here](#). Please indicate if the information is accurate and understandable.

This program aims to prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels to provide safe and effective pre-hospital emergency care for sick and injured adults and children. Both general education and paramedic courses are included in the program of study. Clinical internship experiences are planned in local healthcare facilities under direct guidance of experienced preceptors.

The program's purpose statement and the College Catalog do not match at the time of this report. The new Program Purpose Statement listed above was approved in the September 2021 Curriculum meeting and will be represented in the 2022-23 catalog. The purpose statement was updated at the request of the program's accrediting body, CoAEMSP.

Pre-requisites:

Indicate the current pre-requisites to include testing requirements for admission into the program (if applicable).

1. *Do the prerequisites continue to be needed? Do they need to be changed? Have changes occurred?*
2. *Are they imposed by an external agency of some kind, or are they self-imposed?*
3. *If the second, what data demonstrates or supports the viability of the prerequisites?*

1. Pre-requisites: The program does not require any pre-requisite courses be completed prior to admission. There are Admission Criteria the student must meet before being allowed to enroll in the Paramedic program. No changes are indicated at this time for the Admission Criteria.

Admission Criteria include:

- a. Application to the Paramedic program completed
 - b. Be a licensed Missouri EMT
 - c. Have current Basic Life Support for Healthcare Providers status
 - d. Place into ENGL 111: College Writing and MATH 161: Mathematical Reasoning and Modeling
 - e. Complete the Test of Essential Academic Skills (TEAS) with a 50% or higher
 - f. Satisfactorily complete a confidential medical history, physical examination, negative preadmission drug screen, and clear criminal background check after acceptance in the program.
2. The Admission Criteria is set by the Program. However, students must be a licensed EMT prior to starting a Paramedic program per the Bureau of Emergency Medical Services.
 3. The first three admission criteria (application, licensed EMT, and BLS status) are required for admission, placement into the courses is based on the program's curriculum, and the TEAS score is based on several years of data that showed students that scored less than 50% on the TEAS were either unsuccessful in the program or on the certification examination.

Program Costs:

Are there additional costs and/or fees for students that are associated with the program beyond the institutional tuition and common fees? These are program-specific cost incurred by students.

With the move to the Tier Tuition structure Fall 2021, the cost of the program is represented differently than in the past. The Paramedic program is in the Tier 2 Category which adds an additional \$4/credit hour to the base tuition cost. The tiered structure allows for additional costs to be picked up by the program instead of charging students separately, i.e., liability fee, uniform cost.

AAS-Paramedic Program costs: \$11,837 (in-district), \$14,420 (out-of-district)

One-Year Paramedic Certificate costs: \$8,105 (in-district), \$9,827 (out-of-district)

The total cost above includes the common fee for the College and the resource fee of \$24/credit hour that covers the cost of textbooks, miscellaneous supplies, and uniforms.

Comparative program costs:

Program Review Cost Analysis	Cape Girardeau Career Technology Center - Certificate	Black River Technical College AAS
Paramedic In-District Tuition Total	\$7,842.25	\$13,230.00
Paramedic Out-of-District Tuition Total		\$19,554.00

Section II

Current State of the Program

Enrollment Trends:

a. Describe trends in program such as:

- a. Admitted vs. Applicants
- b. Course enrollments vs. course capacity
- c. Full-Time Enrollment (FTE) vs. Part-Time Enrollment (PTE)

Cite all quantitative data

Paramedic Program Enrollment Trends

- a. Admitted vs. Applicants
 - o 2021-2022 Cohort: 18 applicants 12 accepted 1 withdrew
 - o 2020-2021 Cohort: 13 applicants 11 accepted 7 dropped
 - o 2019-2020 Cohort: 19 applicants 12 accepted 3 dropped
- b. Course enrollments vs. course [capacity](#)
 - o 2021-2022 Cohort: 11 started vs. 16 course capacity
 - o 2020-2021 Cohort: 10 started vs. 16 course capacity
 - o 2019-2020 Cohort: 9 started vs. 16 course capacity
- c. Full-Time Enrollment (FTE) vs. Part-Time Enrollment (PTE)

See chart below for data.

Cohort	Ethnicity	Gender	AGE (Avg.)	ENROLLMENT STATUS
<u>21-22</u>	11-white	6 male 5 female	27.7	FT
<u>20-21</u>	4-white	3 male 1 female	26	PT
<u>19-20</u>	8-white 1-black	4 male 5 female	27.4	PT

Enrollment Evaluation:

What changes could be implemented, including changes to course scheduling (times/days/duration/[modality](#)/number of sections), marketing, and [articulated credits](#) that may improve these trends?

Based on trends from previous cohorts, the current 2021-22 cohort was required to be licensed as an EMT prior to the program start date. In previous cohorts, due to low enrollment and Bureau of Emergency Medical Services standards, the students were able to start the program pending licensure as an EMT. Students were required to have their EMT license prior to the paramedic program's clinical rotation beginning. This accounted for several students in past cohorts dropping around clinical rotation start due to not passing their EMT licensure examination.

Another issue with retention that has been identified is student dedication. The Paramedic program requires time and commitment to come to class prepared. Since the program moved to the hybrid format, the student is required to be even more dedicated to their pre-class, online instruction. Students are often working full-time during the program and do not understand the time commitment it requires outside of classroom instruction. Faculty are working with EMTs in EMDS 105 that want to continue in the program to ensure they understand the rigor of the program. As well, information has been discussed at the local services regarding hybrid curriculum to try to inform students before starting the program.

Progress & Completion:

- 1. What is the benchmark for program completion? Please explain the rationale for this benchmark.*
- 2. Are there identifiable points where [attrition](#) increases?*
- 3. Explain any significant findings in different [modalities](#), [locations](#), and [settings](#).*
- 4. Describe trends in student success and retention disaggregated by: ethnicity, gender, age, and enrollment status, [settings](#). Cite quantitative data and specific tables from the data packets.*
- 5. Evaluation: Based on these trends, what do you feel are significant factors or barriers influencing student success in your courses and program? What changes (e.g. in curriculum, [pedagogy](#), scheduling, modality) could be implemented to improve these trends?*

1. The program's benchmark for program completion is set at 70% per the program's accrediting body, The Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) Commission on Accreditation of Allied Health Education Programs (CAAHEP).
2. The first semester in the paramedic program is where the trend for attrition increases. If the student makes it past the first semester there is not an attrition issue. Most of the reasons for leaving the program are unlicensed EMT, health/personal reasons or not applying themselves within that semester.
3. There is one modality, hybrid. The move to the hybrid modality has shown an increase in certification rates and attrition rates. There is only one location the program is offered, Poplar Bluff, and only one time, daytime.
4. The only trend in success of the student is gender. A higher percentage of male student pass the national registry written exam and become licensed compared to female students. In the 2019-20 cohort the student population was 44.5% male to 55.5% female. In this cohort, the licensed students were higher in the male population with 100% and the female population of 11.1%. Cohort 2020-21 consist of 75% male population and of that 75% the entire male population licensed.
5. At this time there are no program changes that are indicated. The move to the hybrid modality requiring students to only be on campus one day a week has improved the ability of students to start the program. Focus will be turned to retention of students at this time. The students who have been unsuccessful have reported a high workload for the curriculum that was unanticipated. Students do not understand that hybrid modality means they are required to do part of the work online prior to coming to their laboratory day one day a week. Improving communication of program expectations for interested applicants is indicated.

Student Learning Outcomes Assessment:

- 1. Are all program-specific course-level student learning objectives being systematically and regularly assessed? Describe your assessment plan.*
- 2. Do the course offerings provide a clear path to achieving the program learning outcomes? Are the courses sequenced in the most effective manner?*
- 3. Does each class have a specific role to play in helping students achieve the program learning outcomes? Is unnecessary duplication of knowledge and/or skills avoided?*
- 4. What improvements in your courses have been implemented through student learning outcome assessment? How has student learning been improved through implemented changes?*

1. Course-level student learning outcomes are being assessed each semester using a variety of rubrics including simulation and preceptor. The program has developed an assessment plan that shows course-level assessments that tie into the Program Level Outcomes Assessment Plan (see attached: Paramedic Assessment Plan).
2. Courses are sequenced, building on knowledge and skill as the program progresses. The first semester focuses on new Paramedic skills and knowledge that prepares the students for their first clinical and fieldwork rotations. During the last semester in the program (summer), the students review previous information and skills and prepare for the cognitive and psychomotor licensing examinations.
3. There is no duplication of knowledge and/or skills in the courses that is not deemed necessary. During the courses, the skills and knowledge are practiced repetitively to ensure learning. During the last semester in the program, skills and knowledge are comprehensively reviewed in preparation of the licensing examinations.
4. Several course-level changes have been made because of assessment data including:
 - a. Increased level of expectation for students during class/simulation time
 - i. Caused the students to study before coming into their laboratory day to be prepared. Contributed to attrition rate potentially.
 - b. Teaching pharmacology with the disease process, instead of separately
 - i. Allowed for students to apply the knowledge at the time of learning which improved their retention of the material.
 - c. Removed the Pocket Guide for simulation scenarios
 - i. Required students to learn common medications and their dosage.
 - d. Adopted a tool for psychomotor practice

- i. Provided students with a format for the program's expectations. Made students more accountable for their own actions.
- e. Increasing the number of simulation scenarios available to faculty to use during the program
 - i. Allows the faculty to challenge the students based on their experience and content area being covered
- f. Implemented the use of the Crew Recourse Management Rubric following simulation scenarios including debrief
 - i. Provided structure for the debrief part of the simulation scenario

Program Learning Outcome Assessment:

1. *Describe your program-level outcomes assessment plan.*
 2. *What improvements have been implemented as a result of PLO assessment?*
 3. *Is the program arranged so that a full-time student can complete the program in two years or less regardless of modality, location, or setting? If not, what changes could be implemented to facilitate this goal?*
 4. *What specific needs does the program fill at the institution that are not filled by similar programs?*
1. Program outcomes assessment is done by analyzing course assessments that have been designed to assess student learning throughout the program. (See Attached: Paramedic Assessment Plan).
 2. Several programmatic changes have been made as a result of assessment data including:
 - a. Created student remediation plan
 - b. Limited the time students can complete clinical hours at their home service
 - c. Implemented case study reviews with the Medical Director
 - d. Limited preceptors for clinical time
 - e. Discouraged students using their partner on the ambulance as their preceptor
 3. The program is designed as one year of program courses with one year of general education. Students can complete in two years or less. There is only one modality, hybrid, and one setting, Poplar Bluff.
 4. The Paramedic program is the only program that prepares students to take the certification examinations for EMTs and Paramedics. The program is not duplicated at the institution.

Job Placement:

1. *What is the program's job placement rate in the appropriate field of study?*
2. *Does the labor market indicate enough need for the program? What are future trends, opportunities, and challenges?*
3. *Are graduates sufficiently prepared to enter the workforce based on the feedback from employers and advisory board?*
4. *What activities does your program participate in to assist students with job placement?*

1. The program has a 100% job placement with the successful (licensed) student.
2. In our area there is a much-desired need for EMS (Emergency Medical Services) providers. The successful paramedic student is sought after while doing their internships, most of the students have several employment opportunities before graduation. The future trends or opportunities are to encourage the employer to send their EMT employees to Three Rivers College for paramedic training. Continue to grow relationships with area services to have job placement and future students. The challenge to a rural area paramedic program will always be low enrolment.
3. The advisory board consists of most of the area ambulance service managers. The employer surveys indicate the managers are pleased with our program and state the students are prepared to perform their duties as an entry level paramedic.
4. Currently there is not a need for assisting students with job placement. The students have employment opportunities before graduating from the program.

Continuous Improvement Planning:

How will you address the opportunities for improvement that you identified in the above sections?

Identify timelines for implementation, responsible party, and resource requirements.

Action Plan Objective	Timeline	Responsible Party	Resources required
Improve program retention rate	FY22	Program Faculty	NA
Improve Paramedic certification examinations pass rates	FY22	Program Faculty	NA

Section III

Analysis of the Program

Articulation (If applicable):

1. Identify [articulation](#) agreements with other institutions.
2. How often are these agreements updated, reviewed, renewed? When was last update, review?
3. What programmatic changes are needed to accommodate [articulation](#) agreements?
4. Are there any opportunities for new or additional agreements?

1. The program has an articulation agreement with Arkansas State University to transfer to a Bachelor of Science in Disaster Preparedness and Emergency Management.
2. The agreements are reviewed every 3-5 years. The agreement is up for review at this time.
3. There are no current programmatic changes needed.
4. At this time, the program has not found any new opportunities for additional articulation agreements.

Transfer Rates (If applicable):

1. What are the transfer rates of graduates of the program?
2. What are the main receiving schools of our graduates?
3. What are the barriers to transferring from this program?

Transfer rates are not applicable to the Associate of Applied Science-Paramedic program.

Changes in Curriculum:

List any changes that have occurred in your program's curriculum, scheduling, or [modality](#). Explain the rationale for these changes. This will include both formal and informal changes that have been made. Formal changes would have gone through curriculum committee. Informal changes may include changes in techniques, methodology, etc. that were significant, but did not require committee approval.

Curriculum Changes:

- 2020-2021
 - Increased the course fee in EMDS 105: Emergency Medical Services I from \$54 to \$70 to cover the cost of the background check and drug screen for the students.
 - Added a \$215 course fee to EMDS 201 and EMDS 204 to cover the cost of the Paramedic cognitive and psychomotor certification examination fees.
- 2019-2020

- Implementation of the hybrid curriculum.
- 2018-2019
 - Revision of Program—Decrease total credit hours from 77 to 63. Removed IST 100: Computer Applications, Decreased credit hours in EMDS courses.
 - EMDS 201: EMS II—decreased credit hours from 14 to 12. Contact hours will be 150 lecture and 90 laboratory. Changed the course to hybrid modality and adopted Navigate 2 Premier Package.
 - EMDS 202: EMS Internship I—Decreased credit hours from 4 to 2.
 - EMDS 204: EMS III---Decreased credit hours from 14 to 12. Contact hours will be 150 lecture and 90 laboratory. Changed to hybrid modality. Changed student learning outcomes to: Apply the protocols/procedures of ACLS, PHTLS, and PALS to pre-hospital patients. PO #2
 - Demonstrate professional communication with the healthcare team including patient report and documentation. PO #4
 - Use the principles of anatomy and physiology and pharmacology for pre-hospital patient encounters. PO #5
 - Provide pre-hospital care to the medical, trauma, and special consideration patient. PO #1
 - New Course Description: New Course Description: This course is based on the current National Emergency Medical Services Education Standards and the National EMS Scope of Practice Model. Students build upon previous knowledge and skills to provide advanced life support pre-hospital care to the medical, trauma, and special consideration patient. Hybrid-blended course.
 - EMDS 205: EMS Internship II—Changed grading scale to reflect decrease in contact hours in EMDS 202. New course outcomes:
 - Demonstrate the roles and responsibilities of the paramedic including personal wellness, injury prevention activities, and legal and ethical issues that impact decisions made in the pre-hospital setting. PO #3
 - Demonstrate medication administration using all routes. PO #1
 - Provide pre-hospital care to the medical, trauma, and special consideration patient. PO #1
 - Demonstrate professional communication with the healthcare team including patient report and documentation. PO #4
 - EMDS 207: EMS IV—Decreased from 6 to 2 credit hours. New student outcomes:
 - Implement a treatment plan for emergency situations. PO #2
 - Show competency for National Registry Cognitive and psychomotor examination. PO #2
 - Demonstrate professional communication with the healthcare team including patient report and documentation. PO #4
 - EMDS 208: EMS Internship III---Changed grading scale to reflect decrease in contact hours in EMDS 202 and 205. New student outcomes:
 - Demonstrate the ability to perform a comprehensive assessment on medical, trauma, or special consideration patients. PO #2
 - Safely perform advanced life support skills. PO #2
 - Demonstrate the ability to serve as a team leader in a variety of pre-hospital emergency situations. PO #4

- Demonstrate professional communication with the healthcare team including patient report and documentation. PO #4
- EMDS 105: EMS I—increased course fee from \$140 to \$170 to cover the cost of the certification examinations.
- Revision of Program---Changed purpose statement to be in compliance with CoAEMSP.

External Needs Assessment:

Describe how changes in community needs, workforce needs, technology, licensing, or accreditation affect your program. (Programs should identify the dates of their advisory group meetings and attach meeting minutes since the last review separately.)

1. *Does the advisory committee meet regularly?*
 2. *How do the external factors impact the curriculum?*
 3. *How does your Advisory Board adequately represent the community and workforce needs?*
-
1. The advisory committee meets annually, typically at the beginning of the spring semester.
 2. The program is impacted by its accrediting body, CoAEMSP. CoAEMSP dictates the minimum number of skills and patient encounters for the students with Appendix G.
 3. The advisory board is comprised of employers, past graduate, current student, and healthcare workers that interact with the students during clinical rotations.

Adequacy of Facilities, Equipment, and Technology:

Describe the state of facilities and equipment used by the program. Explain by what criteria and with what process the department evaluates its facilities and equipment.

1. *Are facilities safe and sufficient to support and assure the integrity and quality of the program? Is access assured for all facilities?*
 2. *Is equipment adequate?*
 3. *Is it sufficiently modernized?*
 4. *What recommended program improvements could be made through upgrades to facilities, equipment and/or technology?*
 5. *Is all facilities, equipment, and technologies in compliance with regulatory agencies and standards?*
-
1. The facilities are safe and sufficient to support the Paramedic program. The program is currently housed in the Plaster Free Enterprise Center that has handicap parking at its rear entrance with an interior elevator.
 2. The equipment is up-to-date and adequate for student learning.
 3. The space, equipment and supplies are up-to-date for the student learning.

4. No recommendations at this time. The program is slated to request an updated simulation manikin in the next fiscal year.
5. Yes, the facility, equipment, and technology meets CoAEMSP standards.

Impact of Resources to Support Teaching and Learning:

1. *Does the institution provide adequate resources to support teaching and learning in the program?*
 - a. *Faculty and Staff*
 - b. *Revenue vs. Expenditures*
 - c. *Disposable resources*
 2. *Are there any areas within the program that could reduce expenses for students?*
 3. *For CTE programs, is the cost of the program proportionate to the eventual prevailing wages?*
 4. *Does the program have an [obsolescence plan](#) for large equipment purchases?*
-
1. The institution provides adequate resources for teaching and learning. The program is supported through institutional funds, Perkins funding, and Enhancement grant requests.
 - a. The program employs one full-time Program Director that serves as the lead faculty for the program. In addition, there is one part-time Paramedic Laboratory Assistant/adjunct with the option to hire additional Paramedic Laboratory Assistants. The program also employs one part-time Secretary to help with program implementation and accreditation processes.
 - b. Revenue vs. Expenditures. The Financial Services office completed a Financial Viability Report for the EMS program. The report found the program generated just over \$3700 for the year with a 3% margin.
 - c. Disposable Resources. The program is funded through instructional supply budget line for disposable resources. The program goes through a large number of resources by allowing students to complete simulations and laboratories to practice their knowledge, skills, and affective learning.
 2. There are not in any areas identified in the program to reduce costs for students.
 3. Based on the low overall program cost, the prevailing wage is consistent. EMTs start around \$11-13/hour with Paramedics ranging from \$15-18/hour.
 4. The program has large purchases on an obsolescence plan, especially high-fidelity simulators.

Evaluation of Resources to Support Teaching and Learning:

What recommendations for resources that impact teaching and learning could be made based on the information above?

There are no recommendations of changes for the program at this time.

Professional Development:

Identify any professional development activities completed by instructors teaching within the program.

- 1. Identify any CEU or professional development requirements in order to maintain certification/licensure.*
- 2. Identify any barriers to obtaining professional development requirements or remaining current within the field of study.*
1. In January 2021, the program director attended a two-day online seminar hosted by CoAEMSP (Committee on Accreditation of Educational Programs for the Emergency Medical Service Professions) covering the topics for continued accreditation and pit falls. August of 2021, the program director/lead instructor attended an ACLS (advanced cardiac life support) renewal.
2. COVID-19 has made it difficult for the normal training to take place for prehospital. The host of these events is starting to release new dates for the seminars and workshops.

External Accreditation & Documentation:

If an external accreditation is required for the program, please provide the following information and documentation:

- 1. Name of accrediting organization*
- 2. Date of last visit*
- 3. Date of next upcoming visit*
- 4. Are any reports, recommendations, etc. required for the program at this time?*

If you have received any notification, response, etc. from the accreditors, please provide a copy of the correspondence.

1. The Three Rivers College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Committee on Accreditation of Educational Programs for the Emergency Medical Services Professionals, 9355 - 113th Street N., #7709, Seminole, FL 33775, 727-210-2350 (www.caahep.org).
2. The last site visit was conducted on July 29, 2021.
3. The next site visit will be in 2027.
4. No potential violations were identified.

- The following points are comments provided by the site visitors. They do not currently reflect violations of the CAAHEP Standards:
 - Documenting the results of item analysis and other assessments and corresponding action items in more detail will help to refine these instruments.
 - It appears that the new(er) medical director is ready to be part of the program. Consider helping to compensate the position financially or in a tradeoff of hospital duties.
 - It may be helpful to conduct non-class activities during a long winter break, i.e., clinical rotations, to help promote retention of skills and knowledge.
 - The Program should consider continually reinforcing access to instructors and labs in a hybrid program.
 - It may be helpful to provide detailed information regarding the hybrid program to potential students, to prepare them for the challenges of learning remotely.

Progress Report:

Please discuss all recommendations received on your last program review or program accreditation visit and report on progress made on previous action plans and toward your strategic goals.

Based on the feedback from the July 2021 CoAEMSP visit, the following has been implemented:

- Improved documentation of the examination item analysis.
- Allowing clinical over Faculty Work Weeks in December and January.
- Tutoring Lab hours posted each semester for students to access faculty/lab assistants outside of class time.
- Discussion with students applying to the program of hybrid curriculum expectations.

Section IV

External Review of the Program

This section is to be completed by the end of the second semester of Program Review. It is based on the previous sections of program review being shared with the Program Advisory Board. The valuable feedback collected from the Program Advisory Board should help finalize this section.

Executive Summary:

Please summarize your program's strengths, challenges, opportunities, and continuous improvement plan.

The program received the following recommendations following the site visit in summer of 2021.

- Documenting the results of item analysis and other assessments and corresponding action items in more detail will help to refine these instruments.
 - To ensure the program is meeting the student learning outcomes, a review of item analysis, program assessment, summative scenario assessment, psychomotor assessment, and clinical/field evaluations for each student. In reviewing these items, the faculty will be looking for deficiencies in any topic, or psychomotor skill.
 - If any deficiencies are identified the faculty will bring the student in for a remediation plan of action. If the student is showing deficiencies in the clinical/field internship, the student is pulled from internship until they show proficiency.

- It appears that the new(er) medical director is ready to be part of the program. Consider helping to compensate the position financially or in a tradeoff of hospital duties.
 - The medical director is coming in for group discussion at least once a semester.
 - There will be an added line item in the budget to ask for compensation for the medical director.

- It may be helpful to conduct non-class activities during a long winter break, i.e., clinical rotations, to help promote retention of skills and knowledge.
 - Allow the paramedic to stay on track with their clinical rotations between the semester's breaks. This started between the fall and spring break 2020-2021. The faculty will review at the change for efficiencies at the end of the cohort (summer 2022).

- The Program should consider continually reinforcing access to instructors and lab in a hybrid program.
 - The program has increased the faculty's availability to the students.
 - Open lab is available for student use before class, after class and any time there is EMS faculty or staff on campus.

- Offer tutoring before or after class and a zoom tutoring secession once a week. The tutoring via zoom started this semester with great success there is about 80-90% that attends each weeks zoom lesson.
- It may be helpful to provide detailed information regarding the hybrid program to potential students, to prepare them for the challenges of learning remotely.
 - The faculty will be holding a meeting with each potential student prior to enrolling into the paramedic class to explain the hybrid program and the amount of dedication that is required to be successful. This will start in the summer of 2022 for the fall cohort.

Section V

Final Report of Findings

The final stage of program review is reporting your findings to the Cabinet and Faculty-at-Large. This will be coordinated by the Office of Institutional Effectiveness.



THREE RIVERS COLLEGE

PROGRAM REVIEW

[Section I](#) – Program Overview (Weeks 1-4 of the term)

[Section II](#) – Current State of the Program (Weeks 5-8 of the term)

[Section III](#) – Analysis of the Program (Weeks 9-12 of the term)

[Section IV](#) – External Review of the Program (End of second semester)

[Section V](#) – Final Report of Findings (TBD)

Section I

Program Overview

Program Title:

Welding Engineering Technology (AAS)

Dates of Review:

Initial Program Review – Fall 2021

Faculty Program Manager: Derek Joplin

Email: djoplin@trcc.edu

Phone:

VoIP Extension:

The faculty contact person has been identified by the administration and the Office of Institutional Effectiveness. Any changes to this person should be approved prior to submission of the program review. Please check that the phone number listed for the faculty contact is the most current number and that the VoIP extension is included.

College Mission Statement:

Three Rivers College inspires, prepares, and empowers students to succeed through open access to high-quality learning opportunities that meet the needs of the communities we serve.

Program Purpose Statement:

The Welding Engineering Technology Program focuses on the knowledge and skills necessary to succeed within the manufacturing and maintenance profession. This degree prepares students for entry-level employment and provides a foundation for advancement in the industrial and manufacturing sectors.

Catalog Description:

Place an "X" in the box if this section is identical to the Program Purpose Statement.

The current catalog description is located on the college website and may be found by clicking [here](#).

Please indicate if the information is accurate and understandable.

Pre-requisites:

Indicate the current pre-requisites to include testing requirements for admission into the program (if applicable).

1. Do the prerequisites continue to be needed? Do they need to be changed? Have changes occurred?
2. Are they imposed by an external agency of some kind, or are they self-imposed?
3. If the second, what data demonstrates or supports the viability of the prerequisites?

Program Costs:

Are there additional costs and/or fees for students that are associated with the program beyond the institutional tuition and common fees? These are program-specific cost incurred by students.

Section II

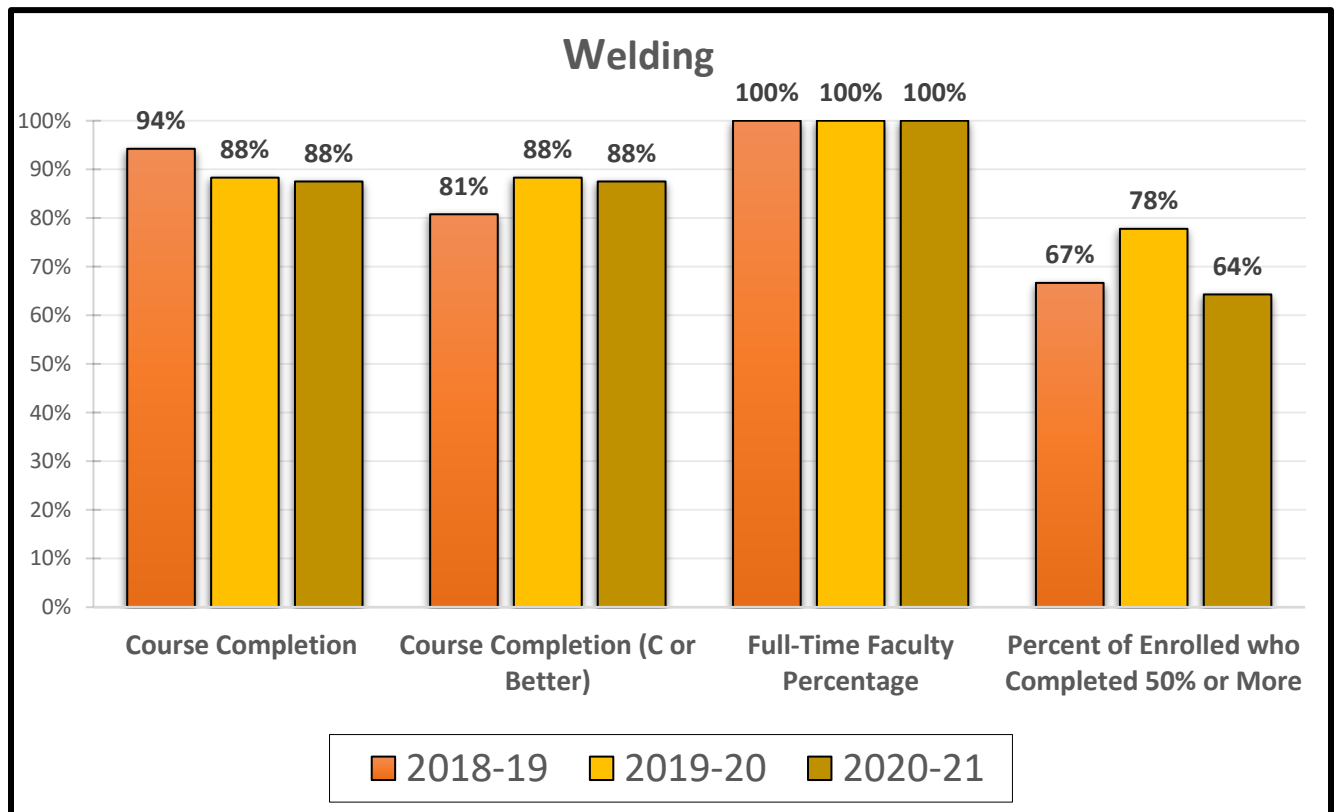
Current State of the Program

Enrollment Trends:

a. Describe trends in program such as:

- a. Admitted vs. Applicants
- b. Course enrollments vs. course [capacity](#)
- c. Full-Time Enrollment (FTE) vs. Part-Time Enrollment (PTE)

Cite all quantitative data.



Description	2018-19	2019-20	2020-21
Course Enrollment (Duplicated)	52	60	104
Course Completion Total (Duplicated)	49	53	91
Course Completion	94%	88%	88%
Completion Total C or Better (Duplicated)	42	53	91
Course Completion (C or Better)	81%	88%	88%
Part-Time Faculty Credit Hours	0	0	0
Full-Time Faculty Credit Hours	198	225	381
Full-Time Faculty Percentage	100%	100%	100%
	18/FA	19/FA	20/FA
Declared Pathway	9	11	15
And Enrolled in at least one Pathway course	9	9	14
And Completed 50% or more of Pathway	6	7	9
Percent of Enrolled who Completed 50% or More	67%	78%	64%
Academic Year Graduates	0	4	2

Programs Included: AAS.CTS.WELD, AAS.ENGR.WELD

Course List: WELD-156, WELD-157, WELD-158, WELD-159, WELD-165, WELD-167, WELD-169, WELD-255, WELD-256, WELD-257, WELD-258, WELD-259, and WELD-265

WELD-255 inactive as of 19/SP

Enrollment Evaluation:

What changes could be implemented, including changes to course scheduling (times/days/duration/[modality](#)/number of sections), marketing, and [articulated credits](#) that may improve these trends?

Progress & Completion:

1. *What is the benchmark for program completion? Please explain the rationale for this benchmark.*
2. *Are there identifiable points where [attrition](#) increases?*
3. *Explain any significant findings in different [modalities](#), [locations](#), and [settings](#).*
4. *Describe trends in student success and retention disaggregated by: ethnicity, gender, age, and enrollment status, [settings](#). Cite quantitative data and specific tables from the data packets.*
5. *Evaluation: Based on these trends, what do you feel are significant factors or barriers influencing student success in your courses and program? What changes (e.g. in curriculum, [pedagogy](#), scheduling, modality) could be implemented to improve these trends?*

Student Learning Outcomes Assessment:

1. *Are all program-specific course-level student learning objectives being systematically and regularly assessed? Describe your assessment plan.*
2. *Do the course offerings provide a clear path to achieving the program learning outcomes? Are the courses sequenced in the most effective manner?*
3. *Does each class have a specific role to play in helping students achieve the program learning outcomes? Is unnecessary duplication of knowledge and/or skills avoided?*
4. *What improvements in your courses have been implemented through student learning outcome assessment? How has student learning been improved through implemented changes?*

Program Outcomes

- Recognize appropriate safety measures to apply in the welding environment.
- Operate and prepare in cutting and preparation of metal.
- Interpret as well as illustrate the terminology in welding prints and codes.
- Create and weld in various welding positions.
- Examine and identify discontinuities and defects in the weld as well as identification of metal.
- Operate machines and recognize when proper maintenance should be done.

Welding Technology: Program Outcomes Mapping

Program Outcome 1: Recognize appropriate safety measures to apply in the welding environment.	
Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Demonstrate the safety requirements for Shielded Metal Arc Welding (SMAW). (CLO 1)
	Demonstrate the ability to weld in all positions using electrodes and select rod appropriate for materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 157: Introduction to GTAW	Demonstrate the safety requirements for Tungsten Inert Gas (TIG) electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions.(CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 158: Introduction to GMAW	Develop the safety practices for the use of Gas Metal Arc Welding (GMAW) equipment. (CLO 1)
	Demonstrate fundamental procedures of Gas Metal Arc Welding (GMAW) and the ability to weld in various welding positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 167: Thermal Cutting	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
	Demonstrate the safety requirements for Thermal cutting and the equipment.(CLO 5)
WELD 165: Welding Blueprint Reading	Demonstrate safety requirements in a welding environment. (CLO 1)
WELD 169: Pipe Fitting	Describe the safety requirements for Pipe Fitting and the equipment. (CLO 1)
	Demonstrate the ability to fit-up in various positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match Fit-up drawings. (CLO 4)

Program Outcome 1 (continued)

WELD 255: Advanced GMAW	Develop safety practices and set up requirements for Metal Inert Gas electric welding equipment. (CLO 1)
WELD 176: Inspections and Testing Principles	Demonstrate the ability to weld in all welding positions on multiple materials. (CLO 2)
WELD 255: Advanced GMAW	Apply welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
WELD 256: Advanced SMAW	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
	Demonstrate the safe usage of Shielded Metal Arc Welding (SMAW) electric welding AC and DC power sources. (CLO 1)
	Demonstrate the ability to weld in all welding positions on multiple materials with multiple electrodes. (CLO 2)
WELD 256: Advanced SMAW	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 257: Advanced GTAW	Describe the safety requirements for Gas Tungsten Arc Welding electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions. (CLO 2)
WELD 257: Advanced GTAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 259: Advanced FCAW	Demonstrate the safety requirements for Flux Core Arc Welding (FCAW) electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions.(CLO 2)
WELD 259: Advanced FCAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)

**Program Outcome 2:
Operate and prepare in cutting and preparation of metal**

Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 157: Introduction to GTAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 158: Introduction to GMAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 159: Introduction to FCAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 167: Thermal Cutting	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
	Demonstrate the safety requirements for Thermal cutting and the equipment. (CLO 5)
WELD 169: Pipe Fitting	Demonstrate the ability to fit-up in various positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match Fit-up drawings. (CLO 4)
WELD 255: Advanced GMAW	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 256: Advanced SMAW	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 257: Advanced GTAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 259: Advanced FCAW	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)

Program Outcome 3: Interpret as well as illustrate the terminology in welding prints and codes.	
Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Recognize welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Collaborate by using appropriate terminology with individuals, team members, and other welding professionals. (CLO 5)
WELD 157: Introduction to GTAW	Recognize welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Collaborate by using appropriate terminology with other individuals and team members. (CLO 5)
WELD 158: Introduction to GMAW	Recognize welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Collaborate with individuals and team members using appropriate terminology. (CLO 5)
WELD 159: Introduction to FCAW	Recognize welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Collaborate with other individuals and team members using appropriate terminology. (CLO 5)
WELD 165: Welding Blueprint Reading	Demonstrate competency in interpreting weld blueprint part and assembly drawings. (CLO 2)
	Translate weld symbols and blueprint information. (CLO 3)
	Distinguish views, materials, measurements, and tolerances. (CLO 4)
	Construct orthographic three view weld drawings. (CLO 5)
WELD 167: Thermal Cutting	Use appropriate terminology and function in a professional manner in a team environment. (CLO 6)
	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
WELD 169: Pipe Fitting	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
	Demonstrate the ability to fit-up in various positions. (CLO 2)
	Recognize welding and fit-up symbols. (CLO 3)
	Use appropriate terminology and function in a professional manner in a team atmosphere. (CLO 5)

WELD 255: Advanced GMAW	Apply welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
	Collaborate with individuals and team members using appropriate terminology. (CLO 5)
WELD 256: Advanced SMAW	Apply welding symbols, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
	Collaborate with individuals and team members using appropriate terminology. (CLO 6)
WELD 257: Advanced GTAW	Recognize welding symbols, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Use appropriate terminology and function in a professional manner in a team environment. (CLO 5)
WELD 259: Advanced FCAW	Recognize welding symbols, terminology, weld joint nomenclature, and welding joint geometry. (CLO 3)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
	Collaborate by using appropriate terminology with other individuals and team members. (CLO 5)

**Program Outcome 4:
Create and weld in various welding positions**

Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Demonstrate the ability to weld in all positions using electrodes and select rod appropriate for materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 157: Introduction to GTAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 158: Introduction to GMAW	Demonstrate fundamental procedures of Gas Metal Arc Welding (GMAW) and the ability to weld in various welding positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 159: Introduction to FCAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 167: Thermal Cutting	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
WELD 255: Advanced GMAW	Demonstrate the ability to weld in all welding positions on multiple materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 256: Advanced SMAW	Demonstrate the ability to weld in all welding positions on multiple materials with multiple electrodes. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 257: Advanced GTAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 259: Advanced FCAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)

Program Outcome 5: Examine and identify discontinuities and defects in the weld as well as identification of metal	
Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Demonstrate the ability to weld in all positions using electrodes and select rod appropriate for materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 157: Introduction to GTAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 158: Introduction to GMAW	Demonstrate fundamental procedures of Gas Metal Arc Welding (GMAW) and the ability to weld in various welding positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 159: Introduction to FCAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 165: Welding Blueprint Reading	Distinguish views, materials, measurements, and tolerances. (CLO 4)
WELD 167: Thermal Cutting	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
WELD 255: Advanced GMAW	Demonstrate the ability to weld in all welding positions on multiple materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 256: Advanced SMAW	Demonstrate the ability to weld in all welding positions on multiple materials with multiple electrodes. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 257: Advanced GTAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 259: Advanced FCAW	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)

**Program Outcome 6:
Operate machines and recognize when proper maintenance should be done.**

Course	Course Learning Outcome (CLO)
WELD 156: Introduction to SMAW	Demonstrate the safety requirements for Shielded Metal Arc Welding (SMAW). (CLO 1)
	Demonstrate the ability to weld in all positions using electrodes and select rod appropriate for materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 157: Introduction to GTAW	Demonstrate the safety requirements for Tungsten Inert Gas (TIG) electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 158: Introduction to GMAW	Develop the safety practices for the use of Gas Metal Arc Welding (GMAW) equipment. (CLO 1)
	Demonstrate fundamental procedures of Gas Metal Arc Welding (GMAW) and the ability to weld in various welding positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 159: Introduction to FCAW	Demonstrate the safety requirement for Flux Core Arc Welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)
WELD 165: Welding Blueprint Reading	Demonstrate safety requirements in a welding environment. (CLO 1)
WELD 167: Thermal Cutting	Demonstrate manual oxyfuel gas cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness on carbon steel. (CLO 1)
	Demonstrate Mechanized oxyfuel gas cutting (e.g., track burner) operations, making straight and bevel cuts in limited positions within a limited thickness range on carbon steel. (CLO 2)
	Demonstrate Manual plasma arc cutting operations, making straight, bevel, and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel, stainless steel, and aluminum. (CLO 3)
	Demonstrate Manual air carbon arc cutting and gouging operations, making straight, bevel and shape cuts, and base and weld metal removal in limited positions within a limited thickness range on carbon steel. (CLO 4)
WELD 169: Pipe Fitting	Describe the safety requirements for Pipe Fitting and the equipment. (CLO 1)
	Demonstrate cutting and fabrication techniques to match Fit-up drawings. (CLO 4)
WELD 255: Advanced GMAW	Develop safety practices and set up requirements for Metal Inert Gas electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in all welding positions on multiple materials. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 256: Advanced SMAW	Demonstrate the safe usage of Shielded Metal Arc Welding (SMAW) electric welding AC and DC power sources. (CLO 1)

	Demonstrate the ability to weld in all welding positions on multiple materials with multiple electrodes. (CLO 2)
	Demonstrate cutting and fabrication techniques to match complex weld assembly drawings. (CLO 4)
WELD 257: Advanced GTAW	Describe the safety requirements for Gas Tungsten Arc Welding electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions. (CLO 2)
WELD 259: Advanced FCAW	Demonstrate the safety requirements for Flux Core Arc Welding (FCAW) electric welding equipment. (CLO 1)
	Demonstrate the ability to weld in various weld positions. (CLO 2)
	Demonstrate cutting and fabrication techniques to match weld drawings. (CLO 4)

Welding Engineering Technology Program Outcomes Rubric

Competency Areas	I	II	III	IV
Recognize appropriate safety measures to apply in the welding environment.	<ul style="list-style-type: none"> • Fails to properly demonstrate the ability to use PPE safety equipment and/ or fails to identify hazards when cutting or welding. • Does not recognize hazards in the workplace 	<ul style="list-style-type: none"> • Demonstrates use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario with some errors and/or assistance is required. • Identifies all hazards In the workplace, when cutting and when welding with errors and assistance required. 	<ul style="list-style-type: none"> • Demonstrates proper use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario. • Identifies all hazards In the workplace, when cutting and when welding. <p style="text-align: center;">(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Demonstrates proper use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario. • Identifies all hazards in the workplace, when cutting and when welding. <p style="text-align: center;">(Zero errors and no assistance required)</p>
Demonstrate Operation and Preparation	<ul style="list-style-type: none"> • Fails to operate machines correctly. • Fails to Recognize proper preparation methods. • Fails to locate parts for machine operation. • Fails to evaluate work piece prior to use. 	<ul style="list-style-type: none"> • Operates machines correctly. • Recognizes proper preparation methods. • Locates parts for machine operation. • Evaluates work pieces prior to use. <p style="text-align: center;">(Errors and assistance is required.)</p>	<ul style="list-style-type: none"> • Operates machines correctly. • Recognizes proper preparation methods. • Locates parts for machine operation. • Evaluates work pieces prior to use. <p style="text-align: center;">(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Operates all machines correctly with no guidance. • Recognizes all proper preparation methods. • Locates all parts for machine operation. • Evaluates all work pieces prior to use.
Interpret as well as illustrate the terminology in welding prints and codes.	<ul style="list-style-type: none"> • Fails to classify which codes are best for what practice. • Fails to describe the meaning of welding symbols. • Fails to memorize the terminology of welding. • Fails to illustrate welding symbols. 	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p style="text-align: center;">(Errors and assistance is required.)</p>	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p style="text-align: center;">(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p style="text-align: center;">(Zero errors and no assistance required)</p>

Welding Engineering Technology Program Outcomes Rubric (continued)

<p>Create and welding in various welding positions.</p>	<ul style="list-style-type: none"> • Fails to distinguish the difference between welding positions. • Fails to create weld beads. • Fails to combine welds for stacking. • Fails to identify consumables. • Fails to explain how to fix defects. 	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Some errors and assistance is required)</p>	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Minor errors and/or assistive prompts required)</p>	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads without flaw. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Zero errors and no assistance required)</p>
<p>Identify discontinuities and defects in a weld as well as identification of metal.</p>	<ul style="list-style-type: none"> • Fails to identify discontinuities. • Fails to identify defects. • Fails to explain how to fix discontinuities. 	<ul style="list-style-type: none"> • Identifies discontinuities, • Identifies e defects. • Explains ways to fix discontinuities. <p>(Some errors and assistance is required)</p>	<ul style="list-style-type: none"> • Identifies discontinuities. • Identifies defects. • Explains ways to fix discontinuities. <p>(Minor errors and/or assistive prompts required)</p>	<ul style="list-style-type: none"> • Identifies discontinuities. • Identifies defects. • Explains ways to fix discontinuities. <p>(Zero errors and no assistance required)</p>
<p>Operate machines and recognize when proper maintenance should be done.</p>	<ul style="list-style-type: none"> • Fails to operate all machines properly. • Fails to distinguish when proper maintenance should be done. • Fails to recognize what to repair. • Fails to identify parts to repair with as well as tools. 	<ul style="list-style-type: none"> • Operates machines. • Distinguishes maintenance should be done. • Recognizes items that need repaired. • Identifies parts to repair with as well as tools. <p>(Some errors and assistance is required)</p>	<ul style="list-style-type: none"> • Operates machines properly. • Distinguishes proper maintenance should be done. • Recognizes items that need repaired. • Identifies parts to repair with as well as tools. <p>(Minor errors and/or assistive prompts required)</p>	<ul style="list-style-type: none"> • Operates all machines properly. • Distinguishes all proper maintenance should be done. • Recognizes all items that need repaired. • Identifies all parts to repair with as well as tools. <p>(Zero errors and no assistance required)</p>

Program Outcome #1

Recognize appropriate safety measures to apply in the welding environment.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW	1	7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advanced GMAW	1	7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW	1	7	Sections Students 1	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Recognize appropriate safety measures to apply in the welding environment.	<ul style="list-style-type: none"> • Fails to properly demonstrate the ability to use PPE safety equipment and/ or fails to identify hazards when cutting or welding. • Does not recognize hazards in the workplace 	<ul style="list-style-type: none"> • Demonstrates use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario with some errors and/or assistance is required. • Identifies all hazards In the workplace, when cutting and when welding with errors and assistance required. 	<ul style="list-style-type: none"> • Demonstrates proper use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario. • Identifies all hazards In the workplace, when cutting and when welding. <p style="text-align: center;">(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Demonstrates proper use of PPE equipment and recognizes the appropriate safety equipment to use in a given scenario. • Identifies all hazards In the workplace, when cutting and when welding. <p style="text-align: center;">(Zero errors and no assistance required)</p>

	I	II	III	IV	Total # of Students
WELD 158	0	1	4	2	7
	0%	14.3%	57.1%	28.6%	100%
WELD 258	0	0	2	5	7
	0%	0%	28.6%	71.4%	100%
WELD 156	0	2	4	1	7
	0%	28.6%	57.1%	14.3%	100%

Program Outcome #2

Operate and prepare in cutting and preparation of metal.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW	1	7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advanced GMAW	1	7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW	1	7	Sections Students	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Demonstrate Operation and Preparation	<ul style="list-style-type: none"> • Fails to operate machines correctly. • Fails to Recognize proper preparation methods. • Fails to locate parts for machine operation. <p>Fails to evaluate work piece prior to use.</p>	<ul style="list-style-type: none"> • Operates machines correctly. • Recognizes proper preparation methods. • Locates parts for machine operation. • Evaluates work pieces prior to use. <p>(Errors and assistance is required.)</p>	<ul style="list-style-type: none"> • Operates machines correctly. • Recognizes proper preparation methods. • Locates parts for machine operation. • Evaluates work pieces prior to use. <p>(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Operates all machines correctly with no guidance. • Recognizes all proper preparation methods. • Locates all parts for machine operation. • Evaluates all work pieces prior to use.

	I	II	III	IV	Total # of Students
WELD 158	14.3%	14.3%	57.1%	14.3%	100%
WELD 258	0%	14.3%	28.6%	57.1%	100%
WELD 156	14.3%	28.6%	42.9%	14.3%	100%

Program Outcome #3

Interpret as well as illustrate the terminology in welding prints and codes.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advanced GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW		7	Sections Students	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Interpret as well as illustrate the terminology in welding prints and codes.	<ul style="list-style-type: none"> • Fails to classify which codes are best for what practice. • Fails to describe the meaning of welding symbols. • Fails to memorize the terminology of welding. <p>Fails to illustrate welding symbols.</p>	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p>(Errors and assistance is required.)</p>	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p>(Minor errors and/or little assistance required)</p>	<ul style="list-style-type: none"> • Classifies codes that are best for what practice. • Describes meanings of the welding symbols. • Memorizes the terminology of welding. • Illustrates welding symbols. <p>(Zero errors and no assistance required)</p>

	I	II	III	IV	Total # of Students
WELD 158	28.6%	42.9%	14.3%	14.3%	100%
WELD 258	0%	14.3%	71.4%	14.3%	100%
WELD 156	0%	42.9%	42.3%	14.3%	100%

Program Outcome #4

Create and weld in various welding positions.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advanced GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW		7	Sections Students	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Create and welding in various welding positions.	<ul style="list-style-type: none"> • Fails to distinguish the difference between welding positions. • Fails to create weld beads. • Fails to combine welds for stacking. • Fails to identify consumables. <p>Fails to explain how to fix defects.</p>	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Some errors and assistance is required)</p>	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Minor errors and/or assistive prompts required)</p>	<ul style="list-style-type: none"> • Distinguishes differences between welding positions. • Creates weld beads without flaw. • Combines welds for stacking. • Identifies consumables. • Explains ways to fix defects. <p>(Zero errors and no assistance required)</p>

	I	II	III	IV	Total # of Students
WELD 158	14.3%	57.1%	14.3%	14.3%	100%
WELD 258	0%	14.3%	71.4%	14.3%	100%
WELD 156	14.3%	42.9%	28.6%	14.3%	100%

Program Outcome #5

Examine and identify discontinuities and defects in the weld as well as identification of metal.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advanced GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW		7	Sections Students	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Identify discontinuities and defects in a weld as well as identification of metal.	<ul style="list-style-type: none"> • Fails to identify discontinuities. • Fails to identify defects. Fails to explain how to fix discontinuities.	<ul style="list-style-type: none"> • Identifies discontinuities, • Identifies e defects. • Explains ways to fix discontinuities. (Some errors and assistance is required)	<ul style="list-style-type: none"> • Identifies discontinuities. • Identifies defects. • Explains ways to fix discontinuities. (Minor errors and/or assistive prompts required)	<ul style="list-style-type: none"> • Identifies discontinuities. • Identifies defects. • Explains ways to fix discontinuities. (Zero errors and no assistance required)

	I	II	III	IV	Total # of Students
WELD 158	0%	14.3%	71.4%	14.3%	100%
WELD 258	0%	0%	71.4%	28.6%	100%
WELD 156	0%	14.3%	71.4%	14.3%	100%

Program Outcome #6

Operate machines and recognize when proper maintenance should be done.

Course Number	Course Name	Total Sections Utilized	Total Students Scored	Face to Face (F2F) Sections and Students	Number of FT and PT faculty Involved	Were all sections of this course involved?
WELD 158	Introduction to GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 258	Advance GMAW		7	Sections Students	FT: 1 PT: 0	Yes
WELD 156	Introduction to SMAW		7	Sections Students	FT: 1 PT: 0	Yes

Competency Areas	I	II	III	IV
Operate machines and recognize when proper maintenance should be done.	<ul style="list-style-type: none"> • Fails to operate all machines properly. • Fails to distinguish when proper maintenance should be done. • Fails to recognize what to repair. <p>Fails to identify parts to repair with as well as tools.</p>	<ul style="list-style-type: none"> • Operates machines. • Distinguishes maintenance should be done. • Recognizes items that need repaired. • Identifies parts to repair with as well as tools. <p>(Some errors and assistance is required)</p>	<ul style="list-style-type: none"> • Operates machines properly. • Distinguishes proper maintenance should be done. • Recognizes items that need repaired. • Identifies parts to repair with as well as tools. <p>(Minor errors and/or assistive prompts required)</p>	<ul style="list-style-type: none"> • Operates all machines properly. • Distinguishes all proper maintenance should be done. • Recognizes all items that need repaired. • Identifies all parts to repair with as well as tools. <p>(Zero errors and no assistance required)</p>

	I	II	III	IV	Total # of Students
WELD 158	0%	14.3%	71.4%	14.3%	100%
WELD 258	0%	0%	71.4%	28.6%	100%
WELD 156	0%	14.3%	71.4%	14.3%	100%

Additional Summary Notes

Anomalies in the results that were noticed:

None

Were there any patterns in the data observed?

A noticed pattern in the data is that the 100-level courses were consistent in scoring level amongst the students. All seven students were being assessed in each course during the same semester. This may not lend itself to enough time for students to have the opportunity to progressively learn. While the scaffolding and alignment of curriculum is appropriate, it may be necessary to re-evaluate the specific points in time to which students are assessed to allow more time between the 100 and 200-level courses and allow for appropriate time for students to learn the knowledge and skills being assessed on the programmatic level.

There were seven students who participated in WELD 156: Introduction to SMAW during the Fall 2019 semester. 2 students scored in the level II performance level, 57.1% (4 students) scored in level III, and 14.3% (1) student scored in level IV of this area of the program outcomes rubric.

For program outcome 1, students were also assessed in WELD 158. Of the seven students, 14.3% (1) student scored in the level II performance level, 58.1% (4) students scored in the level III performance level, and 28.6% (2) students fell into the IV performance level.

In WELD 258: Advanced GMAW – the same seven students were assessed for the outcome again. During this course, 28.6% (2) students scored in the level III performance area of the rubric and 71.4% (5) students scored in the highest performance level; level IV.

Based on the data presented above, Students who were in WELD 156 and 158 were varied in their skill level based on their scores. However, by the time these same students were participating in the WELD 256 course, students were better able to recognize appropriate safety measures and apply them in the welding environment correctly.

Students who did not perform as well as others on this outcome tended to miss safety features on equipment, their surroundings, or pay attention to potential safety hazards. This became less so as they were more familiar with the environment.

Use of Results for Improvement

Due to the importance of safety in the welding environment, faculty will be placing more emphasis and practice opportunities in the introductory courses to allow students more time to recognize the safety measures and surroundings that should be appropriate in the welding environment.

What is the proposed timeline for the changes outlined above?

Fall 2020.

Program Learning Outcome Assessment:

1. *Describe your program-level outcomes assessment plan.*
2. *What improvements have been implemented as a result of PLO assessment?*
3. *Is the program arranged so that a full-time student can complete the program in two years or less regardless of modality, location, or setting? If not, what changes could be implemented to facilitate this goal?*
4. *What specific needs does the program fill at the institution that are not filled by similar programs?*

Job Placement:

1. *The job placement rate is 95%*
2. *Does the labor market indicate enough need for the program? What are future trends, opportunities, and challenges? Yes, welding and fabrication will always be in need.*
3. *Are graduates sufficiently prepared to enter the workforce based on the feedback from employers and advisory board? Yes*
4. *What activities does your program participate in to assist students with job placement?*

Continuous Improvement Planning:

How will you address the opportunities for improvement that you identified in the above sections?

Identify timelines for implementation, responsible party, and resource requirements.

Action Plan Objective	Timeline	Responsible Party	Resources required

Section III

Analysis of the Program

Articulation (If applicable):

1. Identify [articulation](#) agreements with other institutions.
2. How often are these agreements updated, reviewed, renewed? When was last update, review?
3. What programmatic changes are needed to accommodate [articulation](#) agreements?
4. Are there any opportunities for new or additional agreements?

Transfer Rates (If applicable):

1. What are the transfer rates of graduates of the program?
2. What are the main receiving schools of our graduates?
3. What are the barriers to transferring from this program?

Changes in Curriculum:

List any changes that have occurred in your program's curriculum, scheduling, or [modality](#). Explain the rationale for these changes. This will include both formal and informal changes that have been made. Formal changes would have gone through curriculum committee. Informal changes may include changes in techniques, methodology, etc. that were significant, but did not require committee approval.

2017- 18 Curriculum Changes

- AAS Welding Engineering Technology - Change of Program Name. AAS Engineering Technology - Welding Option changed to Welding Engineering Technology (AAS). CIP Code Change - Current CIP Code was a generic CIP code that was not program specific. This CIP designation change positively impacts the program as it aligns this program with it's own specific CIP code which will result in recognition by MDHE.
- One Year Certificate Maintenance Welding - CIP Code Change. Current CIP code was a generic CIP code that was not program specific. This CIP designation change positively impacts the program as it aligns this program with it's own specific CIP code which will result in recognition by MDHE.
- One Year Certificate Welding Fabrication Specialist - CIP Code Change. Current CIP code was a generic CIP code that was not program specific. This CIP designation change positively impacts the program as it aligns this program with it's own specific CIP code which will result in recognition by MDHE.

2018- 19 Curriculum Changes

- See Artifacts Approved AAS Welding, Approved One-Year Maintenance and Approved One-year Fabrication PDF:
WELDING PROGRAM: Core 42 requires that 25% of program courses be general education.
ENGR 106: Tech Math 1 removed from program
MATH 161: Mathematical Reasoning and Modeling replaces ENGR 106
SCOM 110: Public Speaking replaces SCOM 125 Communication in the Workplace

PHYSICS 100: Survey of Physics placed into program

WELD 175: Introduction to Metallurgy removed from program

- See Artifacts Approved AAS Welding, Approved One-Year Maintenance and Approved One-year Fabrication PDF: Grids for the WELD AAS and Certificates Maintenance Welding and Welding Fabrication were updated to reflect the Core 42 changes
- WELD 157 - Course title changed to Intro to GTAW (Gas Tungsten Arc Welding). Old course title, Introduction to TIG (Tungsten Inert Gas) is outdated. Prerequisite is placement in READ 02
- WELD 167 Thermal Cutting- Addition of course. Students use thermal cutting in most classes, however it does not get to be explained as well as it should be. There is much more depth that occurs in this course.
- WELD 169 Pipe Fitting - Addition of Course. Pipe fitting is an industry in-demand course that will teach the students how to level and bevel pipe as well as "fit up" like most fuel and other companies expect.
- WELD 175 Introduction to Metallurgy - Addition of course. The Introduction to Metallurgy course will break down and explain the anatomy of steel and other metals as well as teach students about the residual stress and distortion that occurs in welding.
- WELD 256 Advanced SMAW (Shielded Metal Arc Welding) - Add Prerequisite of WELD 156
- WELD 257 Advanced GTAW - Addition of Course. To gain more knowledge in the GTAW welding field to be more employable in certain fields requiring the skill set.
- WELD 258 Advanced GMAW (Gas Metal Arc Welding) - Course Revision. Course number 255 does not align with WELD 158 Introduction to GMAW. To minimize confusion and to keep consistent, changing the course number from 255 to 258 will make the associated courses align so Advanced GMAW course will read 258 and the Intro course to GMAW will be 158. Prerequisite WELD 158: Intro to GMAW
- WELD 259 Advanced FCAW - Course Addition. To gain more knowledge in the FCAW welding field to be more employable in certain fields requiring the skill set.

2019- 20 Curriculum Changes

- WELD 165 - Textbook Change. Updating to current textbook for Welding course.
- WELD 167 - Textbook Change. Updating to current textbook for Welding courses.
- Welding Fabrication Specialist One-Year Certificate - Revision of Program to clarify that this is an advanced certificate that allows students to broaden their welding skills. Removal of courses, reduction of credit hours, revised description (see paperwork in Document Library)
- Maintenance Welding One-Year Certificate - Revision of Program to clarify that this is an introductory certificate. Removal of courses, reduction of credit hours, revised description (see paperwork in Document Library)

2020- 21 Curriculum Changes

- The program grids are being revised so that the Maintenance Welding Certificate is identified as an entry level one-year certificate. This revision will reduce the required hours from 25 to 24 hours. Courses that were removed from the Maintenance Welding Certificate include:
ENGR 106 - Introduction to Technical Math I
WELD 256 - Advanced SMAW
WELD 258 - Advanced GMAW
WELD 265 - Welding Fabrication
One course was added to the Maintenance Welding Certificate:
WELD 167 - Thermal Cutting
- The program grids are being revised so that the Welding Fabrication Specialist is identified as an advanced one-year certificate. This revision will reduce the required hours from 28 to 24 hours. Courses that were removed from the Maintenance Welding Certificate include:
ENGR 106 - Introduction to Technical Math I
MAFT 229 - Introduction to Safety and Health Programs
WELD 156 - Advanced SMAW
WELD 157 - Introduction to GTAW
WELD 159 - Introduction to FCAW

WELD 165 - Welding Blueprint Reading

Courses that were added to the Maintenance Welding Certificate:

WELD 169 - Pipe Fitting

WELD 175 - Introduction to Metallurgy

WELD 256 - Advanced SMAW

WELD 257 - Advanced GTAW

WELD 259 - Advanced FCAW

External Needs Assessment:

Describe how changes in community needs, workforce needs, technology, licensing, or accreditation affect your program. (Programs should identify the dates of their advisory group meetings and attach meeting minutes since the last review separately.)

- 1. Does the advisory committee meet regularly? Yes, the advisory committee meets annually.*
- 2. How do the external factors impact the curriculum? Workforce needs are analyzed annually to see if programmatic changes are needed to adequately prepare students. If needed, curriculum is changed accordingly.*
- 3. How does your Advisory Board adequately represent the community and workforce needs? Advisory board members represent the construction, fabrication, and vendors in our region.*

Adequacy of Facilities, Equipment, and Technology:

Describe the state of facilities and equipment used by the program. Explain by what criteria and with what process the department evaluates its facilities and equipment.

- 1. Are facilities safe and sufficient to support and assure the integrity and quality of the program? Is access assured for all facilities? Yes*
- 2. Is equipment adequate? Yes, over the course of the last three years and a large amount of equipment has been added to expand the program capabilities.*
- 3. Is it sufficiently modernized? Yes, the equipment upgrades bring the welding program up to date with current technologies.*
- 4. What recommended program improvements could be made through upgrades to facilities, equipment and/or technology? Facilities could be upgraded to help the program. This includes lighting and electrical upgrades.*
- 5. Is all facilities, equipment, and technologies in compliance with regulatory agencies and standards? Yes*

Impact of Resources to Support Teaching and Learning:

- 1. Does the institution provide adequate resources to support teaching and learning in the program?*
 - a. Faculty and Staff*

Staffing is currently adequate for the program.
 - b. Revenue vs. Expenditures*

The program is currently neutral with revenue and expenditures almost equal. The equipment upgrades will increase program capacity allowing for increased revenue.

c. Disposable resources

The consumables used for the program are factored in to the tiered tuition schedule ensuring students have adequate resources for instruction.

2. *Are there any areas within the program that could reduce expenses for students?* No. The welding industry standards keep the needs from the program consistent and leave little room for changes in expenses.
3. *For CTE programs, is the cost of the program proportionate to the eventual prevailing wages?* Yes, the cost of the welding program is substantially cheaper than comparable welding programs in the state.
4. *Does the program have an [obsolescence plan](#) for large equipment purchases?* No, most equipment purchased has at least a 25-year life expectancy if properly maintained. However, equipment has been purchased through the enhancement grant has a three-year cycle.

Evaluation of Resources to Support Teaching and Learning:

What recommendations for resources that impact teaching and learning could be made based on the information above?

Professional Development:

Identify any professional development activities completed by instructors teaching within the program.

1. *Identify any CEU or professional development requirements in order to maintain certification/licensure.* The program uses CWI standards to certify students. This is completed by a independent evaluator and not a requirement for the instructor.
2. *Identify any barriers to obtaining professional development requirements or remaining current within the field of study.* There are no current barriers to obtaining professional development requirements. The instructor maintains contact with CWI to ensure current standards are being met for student certification.

External Accreditation & Documentation:

If an external accreditation is required for the program, please provide the following information and documentation:

1. *Name of accrediting organization*

2. *Date of last visit*
3. *Date of next upcoming visit*
4. *Are any reports, recommendations, etc. required for the program at this time?*

If you have received any notification, response, etc. from the accreditors, please provide a copy of the correspondence.

Progress Report:

Please discuss all recommendations received on your last program review or program accreditation visit and report on progress made on previous action plans and toward your strategic goals.

Section IV

External Review of the Program

This section is to be completed by the end of the second semester of Program Review. It is based on the previous sections of program review being shared with the Program Advisory Board. The valuable feedback collected from the Program Advisory Board should help finalize this section.

Program Review Executive Summary:

Please summarize your program's strengths, challenges, opportunities, and continuous improvement plan.

The strength of the program would be the equipment upgrades in the facility to increase capacity and program offerings. This includes expansion of welding booths, welders, CNC laser, CNC break, CNC router, Pipe bender, sandblaster, fabrication table, augmented arc (welding simulators), belt sanders, iron worker, metal lathe, metal shear, track welder and track torches. Another strength is the expansion of the welding program facilities. This includes Pipe lab, Fabrication lab, and Cutting room. The welding facilities have been upgraded with a new gas flow system to lower the cost and while maintaining a safer environment. Future plans include upgraded exhaust system, and expansion of a finish product lab. This expansion will increase capacity and create a safer learning environment with up-to-date technologies that adequately prepare students for skilled labor positions in the region.

The biggest challenge of the program is keeping costs low for the students. Program costs for the program can be high due to the increasing of consumables. However, many costs have been covered through the Perkins and enhancement grant. We will continue to identify ways to reduce costs and use resources more efficiently.

The biggest opportunity for the program is enrollment. Three Rivers College's Welding program is substantially less expensive than comparable programs in the state. This is a great selling point to potential students. There needs to be a strong focus on marketing and advertising for the welding program. The facility and equipment upgrades have allowed the program to offer courses that meet the needs of regional employers with state-of-the-art technology. There needs to be greater awareness of what the program can offer. Also, the program currently has 95% job placement, which is great for our region.

The areas of focus for continuous improvement are facilities, equipment, and curriculum. The facilities and equipment purchases allowed the welding program to offer quality education to our students. Within the next two years the facilities and equipment improvements will be completed. Curriculum will be reviewed annually to ensure that programming is current and meeting regional employer needs. This is done with the Welding program advisory board, which meets annually. The board consists of representatives of regional employers and vendors. Also, the program will adjust as needed to stay current with changes to CWI codes, which is an industry standard. This will prepare students for their CWI certifications.

Section V

Program Review Final Report of Findings

The final stage of program review is reporting your findings to the Cabinet and Faculty-at-Large. This will be coordinated by the Office of Institutional Effectiveness.