*Office of the Provost*

**NORTHERN New Mexico College**

**Program Review Report**

Program: Technical Trades Programs

College: Northern New Mexico Community College

A self-study for Technical Trades degrees offered via the Department of Technical Trades was completed and reviewed by the Program Review Committee in the Fall 2024 semester.

Many recommendations came from peer reviews using a rubric to rate the strengths and weaknesses of the program. These reviews are included and begin on page 2. The recommended action items are listed below.

1. Create a curriculum map that specifies the courses in which the student learning outcomes will be assessed. Maintain the current assessment efforts and record the results in Watermark. The Director of Assessment can help you with this task.
2. Create a table with the faculty qualifications of each faculty member in the department.
3. The Office of Institutional Research will provide the total number of students enrolled and student credit hours (degree seeking and non-degree seeking) taken **in each program** in Technical Trades for the last three years.
4. Develop a system to track students that leave a Technical Trade program before completion. An exit interview is recommended, and Carmella Sanchez and David Torres can work with the Technical Trades Chair to develop this system.
5. Tailor the College’s Credit for Prior Learning (CPL) policy to better fit Technical Trades. This can help address the concern that students leave their program for employment in the field. The Chair and departmental faculty can work with the Director of Assessment and in consultation with the External Advisory Committee (EAC) to develop a policy to present to the Office of the Registrar for review.
6. Provide a listing of External Advisory Council members for each of the Technical Trades programs. Consider increasing the number of members in each EAC along with the frequency of meetings (perhaps once each semester?). Submit minutes and summaries of EAC meetings to the Director of Assessment.

Your next program report and check-in will be scheduled in December 2025. At that time, the program will need to highlight progress made on the recommended action items. It will also identify any changes in planned actions that may have occurred because of changes to the program or its context. Use the Interim Report Template to report your progress for the upcoming review.

**Criterion 1: Mission & Introduction**

1. Provide an overview of the program and the context of where it is housed within the institution (what department, etc.). Describe the hierarchical structure of the department in which the program is housed.

2.  Align your program mission and vision with NNMC’s mission and vision. What changes has the program made to the mission statement since inception, the last review, or in the last 5-7 years? Why were these changes made? Are any revisions planned?

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **1.1**  **3** | The overview thoroughly (includes succinct description that explains what program is designed to teach, how it supports student success and its goals) articulates how it fits into the larger department in which it is housed. | The overview adequately describes how it fits into the larger department in which it is housed. | The overview discusses how the program fits into the larger department in which it is housed but fails to make clear connections. It discusses plans to develop or improve the program. | Administrative oversight of the program within the department is not apparent within the review. |
| **1.2**  **2** | The review has a clearly defined mission that is fully aligned with departmental and College missions. Elements of the College's strategic plan are clearly integrated into the program. If applicable, the review clearly articulates changes made to the mission in the last 5-7 years and describes how the program will  anticipate and make future changes based upon College and departmental influence.If less than 5 years, explain why. There is a clear strategy for responding to industry needs and the strategic direction of the College. | The review has a clearly defined mission that is aligned with departmental and College missions. The review articulates changes made to the mission that are over 7 yearsold and describes how the program will  anticipate and make future changes. If less than 5 years explain why. | The review has a mission that is partially aligned with the departmental and/or College mission(s). The review either articulates program changes made to the mission OR anticipates future changes. | The review has no defined mission or a mission that is vaguely articulated or not aligned with departmental or College missions. Administrative oversight of the program mission is not apparent. |

Factual Observation:

The overview of the Technical Trades programs is thorough and includes:

* A clear description of the program offerings, such as degrees and certificates in Plumbing and Electrical Trades.
* Context on the program’s housing within the Northern New Mexico College Branch Community College (NNMCC) and the Technical Trades Department.
* Historical development and adaptations, including the impact of the COVID-19 pandemic on program delivery and logistical challenges.
* Details on partnerships with secondary schools and the UA 412 Plumbing and Pipefitters union.
* A comprehensive description of the department’s structure, including faculty, adjuncts, administrative staff, and campuses.

The mission of the Technical Trades program aligns well with NNMC’s institutional mission of inclusivity, student-centered education, and empowerment. Key highlights include:

* A focus on equipping students with core skills required for diverse career opportunities in construction, building maintenance, government operations, and entrepreneurship.
* Program alignment with regional workforce needs, particularly in Plumbing, Pipefitting, and Electrical Trades, with the development of a specialized Pipefitting Certificate based on employer feedback.
* Recognition of the transformative potential of trade education in empowering students to make meaningful contributions to their communities.

Recommendations for Improvement:

1. Address Mission Evolution:
   * Explain why the mission has remained static and outline plans for periodic review to reflect changes in the trades industry and educational best practices.
2. Incorporate Strategic Goals:
   * Integrate specific elements of NNMC’s strategic vision, such as sustainability, innovation, and inclusivity, into the program’s mission.
3. Develop Future-Oriented Strategies:
   * Proactively address emerging trends in the trades, such as renewable energy technologies, green construction, or advanced manufacturing, and highlight how the program will adapt.

**Criterion 2: Student Learning Outcomes Assessment & Curriculum**

**Technical Trades**

1. List your program level student learning outcomes.  Have any changes been made to these outcomes since the last review or in the last 5-7 years? Why or why not? Describe how the program level student learning outcomes pertain to the program’s mission.
2. Provide a curriculum map that details an overall view of the assessment plan. List clearly described measures or assessment instruments and their alignment with appropriate learning outcomes. Include both direct (how students directly demonstrate learning) and indirect (any method of collecting data that requires reflection on student learning, skills, or behaviors, rather than a demonstration of it) measures/assessment instruments, target performance levels and measures themselves (rubrics, exit surveys, for example) that clearly align with learning outcomes. In addition to assessment points, identifying where the outcomes are introduced and practiced is encouraged.
3. How is the program’s curriculum developed? Describe the course pathway(s) students take to achieve this degree. Be sure to highlight any key or course courses and provide Curriculum Efficiency documentation as evidence. Also discuss any successes or challenges with length of term or modality adjustments.
4. Describe what was learned from your assessment measures or instruments. Summarize your findings since the program began, in the past 5-7 years, or since the last review (whichever is most applicable).
5. Explain actions or improvement plan results since the last review or in the past 5-7 years. Demonstrate these actions/improvements are linked to the findings.
6. If applicable, what courses in your program are tied to general education requirements at the institution?  How many students from outside the department are taking courses in the program to fulfill general education/elective requirements?  (IR will be able to provide Table 2.9 as evidence).
7. How do program faculty participate in assessment? What is the process? Have any changes been made to encourage participation since the last review or in the past 5-7 years? (1)

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **2.1**  **1** | The review articulates historical and current program outcomes. Outcomes are measurable, appropriate and comprehensive. Shifts or changes in outcomes are substantiated. If less than 3 years, an explanation is provided. | The review articulates historical and current program outcomes that reasonably focus on the key knowledge, skills, and values students learn in the program. Outcomes are measurable. Shifts or changes in outcomes are substantiated. If less than 1 year, an explanation is provided. | The review discusseshistorical and current program outcomes. Outcomes are measurable.  SLO’s were not written following the best practices of writing objectives.(1) | The fails to have explicitly stated outcomes or the outcomes are very incomplete, overly detailed or broad, inappropriate, or otherwise unmeasurable. |
| **2.2**  **0** | The curriculum map contains a complete list and clear description of assessment measures aligned with outcomes.  Map includes where learning outcome concepts are introduced, practiced and assessed.  Each outcome has at least two assessment measures, one direct and one indirect. Targets and ideal performance levels are implemented and maintained for the past three years. Measures are appropriate as evidenced by tools (rubrics, exit surveys, etc.) that clearly align with learning outcomes. | The curriculum map contains at least one assessment measure for each outcome. Targets and ideal performance levels are specified.  Measures are appropriate as evidenced by tools (rubrics, exit surveys, etc.) that clearly align with learning outcomes. | The curriculum map does not contain at least one assessment measure for each outcome. Some measures may not be appropriate measures of the outcomes, or no tools are included. | Curriculum map is absent, or no activities have been added. A discussion of assessment measures is absent or vague.  There was no assessment plan. (0) |
| **2.3**  **2** | The review includes a curriculum efficiency analysis that shows that the curriculum does not have long critical paths. The pre-requisite and co-requisite structure in the curriculum is optimal so that students may graduate on time with a high probability.  The review discusses ways in which the curriculum is delivered inside and outside the classroom. Clear connections can be made between the aforementioned pathways and delivery. | The review includes a  curriculum efficiency analysis that shows that the curriculum has few bottleneck courses with a few long critical paths, but the student can still graduate on time. The review discusses ways in which the curriculum is delivered. Clear connections can be made between the aforementioned pathways and delivery.  Curriculum efficiency map was not attached (2). | The review shows that there are some changes that should be made to improve the curriculum efficiency of the program or the risk of timely graduation is minimal. The review discusses ways in which the curriculum is delivered. Some consistency exists with the aforementioned pathways and delivery. | The review fails to do a curriculum efficiency analysis or the curriculum efficiency analysis reveals that the programs are very difficult to be navigated by students.  There are too many bottleneck courses or it is very challenging to graduate on time.  Methods for curricular delivery are inconsistent with the aforementioned pathways. |
| **2.4**  **0** | Findings from direct and indirect assessment measures are summarized and clearly reported and include data since the last Program Review. Findings are disaggregated by length of term and/or delivery modality. | The program has a substantial history of clearly reported findings from direct and indirect assessment measures. | The program presents findings but not all are linked to learning outcomes; additionally, the program has a limited history of clearly reported findings from direct and indirect assessment measures. | No findings from assessment measures are reported.  Program SLO’s are not being measured (0). |
| **2.5**  **0** | Changes, in the form of action plans, are described and justified based on the findings, or no changes are warranted based on the findings so far. Action plan assessment is included.  Action Plans have been reported since the last program review or since the program’s inception. | Changes, in the form of action plans, are described and justified based on the findings, or no changes are warranted based on the findings so far. Action plan assessment is included.  The program has a limited history of reported Action Plans that are based on Findings from assessment measures. | Program changes are presented but are not linked to learning outcomes OR changes, in the form of action plans, are described but not justified by findings. | No action plans based on findings are reported  There’s no action plan attached (0). |
| **2.6**  **NA** | The review articulates relevant General Education/Elective courses and demonstrates how the department contributes to the  assessment and robust improvement of General Education. If courses do not contribute to Gen Ed, state so. | The review articulates relevant General Education/Elective courses and demonstrates how the department contributes to the  assessment of General Education. If courses do not contribute to Gen Ed, state so. | The review articulates relevant General Education/Elective courses and vaguely demonstrates how the department contributes to the  assessment of General Education.  If courses do not contribute to Gen Ed, state so. | The review articulates relevant General Education/Elective courses but fails to demonstrate how the department contributes to the assessment or improvement of General Education.  If courses do not contribute to Gen Ed, state so. |
| **2.7**  1 | The review demonstrates how all faculty contribute to assessment processes and discusses changes and participation expectations. Evidence here can include participation in assessment-related events, number of courses assessed in the program, meeting minutes that include departmental discussion of assessment results. | The review demonstrates how  some faculty contribute to assessment processes and discusses changes and participation expectations. | The review demonstrates how a few faculty contribute to assessment processes and discusses changes and participation expectations.  (1) | The review fails to address how faculty participate in assessment processes and does not address changes. |

Factual Observation:

This reviewer did not see any evidence of a program level assessment plan that measures end of program student learning outcomes. It appears that the program is measuring general education SLOs.

Recommendations for Improvement:

Program SLOs need to be rewritten to follow Bloom’s Taxonomy and use only 1 action verb per outcome.

2.1

Comment: SLO’s were not written following the best practices of writing objectives.(1)

Comments: (0) several of the SLOs have 2 or 3 action verbs, which is too difficult to measure.  In general, best practice for writing learning outcomes is to only use 1 verb. Honestly, I think they need to be completely re-written. You cannot measure 3 different action verbs in one outcome.

2.2

Comment: There’s no assessment plan. (0)

Comments: (0). No assessment plan was provided, only the curriculum, so this question was not answered.

2.3

Comment: Curriculum efficiency map was not attached (2).

Comments: (1) A description of how the program was developed was provided. A curriculum efficiency map that demonstrates which courses are pre-reqs to specific courses, and identifies bottlenecks, was not provided.

2.4

Comment: Program SLO’s are not being measured (0).

Comments: (0) The assessment results were very confusing, as it appeared that the college general education SLOs (communication, critical thinking, cultural sustainability, and information competence and research ) were being measured, not the program SLOs. It is still not clear to me what the assessment plan is, or that program SLOs are being measured.

2.5

Comment: There’s no action plan attached (0)

Comments: (0). No action plans identified, as the program SLOs were not measured.

2.6

NA

2.7

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**Criterion 3: Faculty Qualifications, Effort, & Evaluation**

1. What processes are in place to ensure that faculty have the qualifications to teach in the program? Have these processes changed since the last review or in the past 5-7 years? Complete and upload Table 3.1 as evidence of current faculty qualifications.

2. Summarize the workload and responsibilities of faculty as it pertains to the program. How often do the faculty participate in program/departmental meetings? Include minutes of meetings for the past year as evidence. Utilize a section of the NNMC Program Review Table here.

3. How are faculty being supported to ensure high quality teaching and learning? Describe how students evaluate this program and instructors (positive and negative feedback).  Include forms and data collected from the Course Evaluation Forms (CEF) and the Classroom Observation Forms (COF). Describe how this data is used to make improvements to the program. Highlight any trends or insights that came from the aforementioned evaluations.

4. List the professional organizations the program and faculty belong to; and provide an explanation for how the program supports faculty membership.  Complete and upload Table 3.4 as evidence.

5. Describe recruitment efforts or goals such as increased enrollment. Be sure to include dates, activities, program representatives, and the number of contacts made for each effort. Have these initiatives been successful and how are you measuring success both qualitatively and quantitatively?

6. Describe the advisement process in the program, including number of contacts with students, and follow up on non-returning students. Describe how the program trains and cross trains advisors, including how often training happens.

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **3.1**  **2** | The review provides documented evidence of faculty qualifications and describes processes to determine qualifications are effective and rigorous to comply with accrediting agencies and appropriate regulations. | The review provides evidence of faculty qualifications and describes processes that comply with accrediting agencies and appropriate regulations.  The report explains the criteria for hiring but does not provide evidence that the faculty meet the requirements.   A table with faculty names and how they meet the criteria would add the specific detail needed. The professional development information is helpful but could also be included in this table. | The review provides evidence of faculty  qualifications but processes can be improved so that they comply with accrediting agencies. The evidence is weak or partial. | The review fails to provide evidence of faculty qualifications and/or provides weak processes to determine qualifications. |
| **3.2**  **1** | The review indicates faculty workload is appropriate (faculty to student ratio should be greater than 1 to 17 ratio) yet the department has methods for increasing teaching loads. Substantial evidence of institutional committee and departmental contributions are included. | The review indicates faculty workload is appropriate  (faculty to student ratio should be at least 1 to 17). Evidence of institutional committee and departmental contributions are included. | The review indicates faculty workload is appropriate (faculty to student ratio should be at least 1 to 10).  Partial evidence of institutional committee and departmental contributions are included.  The work load is explained but could be broken down more in a table.  It is unclear if there are department meetings and no minutes are included. | The review indicates the faculty workload is not appropriate. No evidence of institutional committee and departmental contributions is included. |
| **3.3**  **1** | The review includes sample evaluations,  details the processes for evaluating faculty teaching effectiveness, and how results are used to inform professional development priorities. The review details how the department acquires resources for professional development and provides evidence of how full-time and adjunct faculty are trained and supported. The review includes an analysis of teaching evaluations for curricular improvement along with examples and relevant data related to the discussion. Trends are discussed. | The review details the process for evaluating faculty teaching effectiveness. Because of limited resources, the department provides evidence that faculty participate in institutional professional development or develop in-house training. Evidence includes how full-time and  adjunct faculty are trained and supported. The review includes an analysis of teaching evaluations for curricular improvement.  Trends are acknowledged. | The review vaguely details the process for evaluating faculty teaching effectiveness. Faculty participate in professional development but not in a structured way. Evaluations are collected but not utilized for determining professional development priorities. Evidence includes a plan for how adjunct faculty are trained and supported. The review includes an analysis of teaching evaluations.  Faculty observations are an excellent way to support faculty and evidence of the observations were included.  Student evaluations are also a key component of providing faculty with feedback.  It is unclear why the students cannot use their NNMC emails as this is an important communication tool for all students. It is also a FERPA regulation to only communicate through NNMC emails.  It is unclear if student evaluations were not being completed because they were delivered through email but that is the implication and this should not be a barrier. | The review fails to include processes for evaluating faculty teaching effectiveness. There is no evidence that adjunct faculty are trained and supported. The review fails to include analysis of teaching evaluations. |
| **3.4** | The review indicates 100% of faculty members participate in a professional organization. | The review indicates over 50% of faculty members participate in a professional organization. | *The review indicates under 50% of faculty members participate in a professional organization.* | The review indicates no faculty members participate in a professional organization. |
| **3.5** | The review indicates the program has developed strategic enrollment goals. It provides a detailed description and data related recruitment efforts as well as measures for success and plan management. | The review indicates the program has developed strategic enrollment goals. It provides data related recruitment efforts with some analysis. | The review indicates the program has developed strategic enrollment goals. It provides data related  recruitment efforts. | The review does not indicate the program has strategic enrollment goals. Recruitment efforts are not tracked in a way where trends can be identified.  The review outlines efforts to recruit faculty but the question asks for information on faculty efforts to recruit students and increase enrollment.  The strategic plan for this and how it will be measured is not addressed. |
| **3.6** | The review includes a detailed description of advising within the department including how advisement is distributed, how consistency is maintained, training, and statistics on student contacts, faculty advising load, and retention efforts. | The review includes a description of advising within the department including how advisement is distributed, how consistency is maintained, training, and statistics on student contacts, faculty advising load, and retention efforts.  The review provides useful information about assigning advisors and advisement activity within the department.  Specific information about faculty advising load and documentation such as advising logs is not included.  Evidence of these activities would add here as well. | The review includes a description of advising within the department but lacks some pertinent details from the following list: how advisement is distributed, how consistency is maintained, training, and statistics on student contacts, faculty advising load, and retention efforts. | At least two elements from the list are missing in the review’s description of departmental advising. |

Factual Observation:The information included in the report helps to establish how faculty are supported and the requirements of their positions but at time specific details and evidence is missing.

Recommendations for Improvement:Include more specific information and evidence for faculty load, credentials, advising load, and departmental meetings.  Revise Criteria 3.5 so that it focuses on faculty efforts to recruit students and departmental strategic plans for increasing enrollment.  Address the issue of students not completing evaluations by requiring students to access and use their NNMC emails.

**Criterion 4: Student Success**

1. What are the enrollment trends gauged with Student Credit Hours (SCH) within this program over the course of the review cycle? Write an analysis of what these data indicate about your program. Be sure to include factors that may impact student enrollment. Utilize a section of the NNMC Program Review Table here.

2. Discuss the retention rates from Fall to Spring and Fall to Fall. Has student retention remained in an acceptable range over the course of the review cycle? Does modality factor into retention rates? Utilize a section of the NNMC Program Review Table here.

3. Assess completion/graduation numbers for the program. Are numbers increasing or decreasing? Explain why. What are the median years to graduate? Is the increase or decrease in line with program goals? Utilize a section of the NNMC Program Review Table here.

4. If applicable, discuss pass rate data for any licensure/certification test required of your students for the last 3 years. Utilize a section of the NNMC Program Review Table here.

5. Highlight the accomplishments and external honors (such as special experiences/projects, honors, publications, presentations, internships, etc.) received by students in the program over the course of this cycle.

6. What were some positive and negative feedback received from students as they complete their degrees? Highlight any trends or insights that came from exit surveys over the course of the cycle.

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **4.1**  **2** | The review indicates the program tracks its student credit hour trends and highlights excellent enrollment trends (5% growth or an average of over 51 SCH) over a consistent period of time. | The review highlights stable enrollment trends (1-5% growth or an average of 51 SCH at minimum) over the period of time. | The review indicates decreasing  enrollment trends (0% growth or below an average 51 SCH). | The review indicates minimal to no enrollment  (0% growth and below an average 51 SCH). |
| **4.2**  **2** | The retention rate Fall to Fall is consistently over 85%. The review indicates the program is tracking learning, retention, and performance in all modalities and is capitalizing on success and responding to any concerning data with action plans and follow up. | The retention rate Fall to Fall is consistently over 60%. The review indicates the program is tracking learning, retention, and performance in all modalities and is capitalizing on success and responding to any concerning data with action plans. | The retention rate  Fall to Fall is between 30% and 60%.  The review indicates the program is tracking learning, retention, and performance in all modalities. | The retention rate  Fall to Fall is less than 30%. The review indicates the program is not able to track learning, retention, and performance in all modalities. |
| **4.3**  **3** | The review presents data that indicate program graduates are increasing by over 5%. | The review presents data that indicate program graduates are maintaining or increasing up to 5%. | The review presents data that indicate program graduates are decreasing within 5%. | The review presents data that indicate the program graduates are decreasing more than 5%. |
| **4.4**  **1** | Licensure pass rates fall within board expectations. | Licensure pass rates fall within board expectations. | Licensure pass rates are improving toward board expectations. | Licensure pass rates fail to fall within board expectations. |
| **4.5**  **0** | The review highlights accomplishments and honors for at least 25% of the program students in the last three years. | The review highlights accomplishments and honors for at least 5% of the program students in the last three years. | Accomplishments and honors are anecdotal. | Accomplishments and honors do not exist or are not documented. |
| **4.6**  **3** | Feedback is sufficient, periodic, and remarkably positive. | Feedback is periodic and positive. | Feedback is sporadic and a mix of positive and negative. | Feedback has not been collected or the feedback is mostly negative. |

Factual Observation:

Program review table shows a significant drop in enrollment which was explained by the college discontinuing transportation for students and by students switching from degree-seeking to non-degree seeking. There is a significant increase in the enrollment of Non-Degree Plumbing Apprenticeship and dual credit students.

Recommendations for Improvement:

None.

**Criterion 5: Program Analysis**

1. Based on all the data gathered in this review, conduct a SWOT (Strength, Weaknesses, Opportunities, and Threats) Analysis. Be sure to include the last time a SWOT Analysis was conducted.

2. Provide a Strategic Improvement Plan for the Program for the next 5 years. The Plan needs to include goals, SMART objectives, and tasks/actions to address the SWOT elements identified, timeline, and strategies and/or measurements to achieve each Plan item. (You may follow the SMART goal setting guidelines: S – Specific, M – Measurable, A – Attainable, R – Realistic, T – Timely.)

3. Provide an analysis on the adequacy of the spaces on campus most commonly used by the program. Consider the following items for your discussion: current facilities, deficiencies, inventory report of equipment and losses. Additionally, describe your process for updating and keeping an accurate inventory of equipment, materials and supplies. Indicate whose responsibility it is to maintain the inventory process.

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **5.1** | The review indicates the program uses an evidence-based approach to identify strengths and weaknesses and has collectively developed and implemented ongoing strategies for enhancing areas of strengths and addressing weaknesses. | The review indicates the program uses an evidence-based approach to identify strengths and weaknesses and has developed strategies for enhancing areas of strength and addressing weaknesses. | The review indicates the program identified strengths and weaknesses but supplies little evidence to support its conclusions or has not developed strategies for enhancing areas of strength and addressing weaknesses. | The review indicates the program has not identified strengths and weaknesses or supplies no evidence to support its conclusions or has not developed strategies for enhancing areas of strength and addressing weaknesses. |
| **5.2** | The program has a complete strategic plan with at least three specific objectives to enhance quality and efficiency. Evidence is provided to support the viability and implementation of these objectives. | The program has at least three specific objectives to enhance quality and efficiency. Evidence is provided to support the viability and implementation of these objectives. | The program has fewer than three specific objectives to enhance quality and efficiency or does not provide adequate evidence supporting the viability and implementation of its objectives. | The program has no specific objectives to achieve and enhance quality and efficiency or does not provide adequate evidence supporting the viability and implementation of its objectives. |
| **5.3** | The review addresses all required elements of the prompt including the process and responsibility for inventory. A detailed analysis is provided. | The review addresses most required elements of the prompt including process and responsibility for inventory. An analysis is provided. | The review generally addressed the required element of the prompt. Either an analysis or responsibility or inventory is lacking. | The review addresses only two or less required elements of the prompt and/or lacks processes and responsibility for inventory. |

Factual Observation:

5.1 The rating is between acceptable (2) and early development (1).  The review indicates the program identified strengths and weaknesses but supplies little evidence.  The department has developed strategies for enhancing areas of strength and addressing weaknesses. The program has at least three specific objectives to enhance quality and efficiency but does not provide adequate evidence supporting the viability and implementation of its objectives.

Recommendations for Improvement:

Recommendations for 5.1.

Use a program such as Gray Associates to provide data to make informed decisions to help increase enrollment and retention, strengthen relations, obtain the proper facilities and improve graduate employment outcomes.  This will help to develop a specific plan for implementing the five-year strategic plan.

The department does not have proper facilities to implement its programs.  Much of the Mill Levy funding should be used to build a new facility or remodel the old one.  Currently, faculty are teaching at nine campuses.  This is not sustainable.  The department needs proper facilities to house the different trades programs.  This will be conducive to faculty retention and student recruitment and success.  It is also a liability for faculty to travel to multiple campuses and have to carry their own tools and materials.  It is also a liability for faculty to be teaching on campus at high schools.

**Increase enrollment** by providing hybrid courses.  Teach as much theory as possible online.  Hire an instructional designer to work with the faculty members to develop high quality online courses.

**Improve student retention rates** by having the programs located in one location which should be at NNMC.  Have high quality equipment and a controlled safety environment where students do not have to worry about being safe so that they can learn.

Evaluate course offerings each semester to make sure the courses needed to complete the programs are offered.

Use a program such as Gray Associates to monitor and evaluate retention rates annually.  Gray Associates can help with seeing who our competition is and by suggesting new programs in our area.

**Establish Strong Industry Partnerships** by collaborating with companies/employers to refine the courses needed to prepare students for the local workforce so we can retain our trades graduates in the area.  An advisory board can help with insights into the local workforce.

**Enhance facilities and Equipment** by writing grants to purchase equipment.  Administration needs to provide the much-needed facilities which are within driving distance for our students.  Our students must be trained on new industrial equipment so they are ready for the workforce.

**Increase Graduate Employment Rate** by meeting with the advisory board, owners of businesses and organizations to see what their needs are.  Use a company like Gray Associates to evaluate what is needed as far as trades in the local economy.

**Criterion 6: Program Economics**

1. Describe how the program is being effective with its resources.  Provide Program Economics from Gray Associates including the ratio between gross revenue and instructional cost as well as the Program Economics Waterfall as evidence. Provide the 3-year Program Marginal Contribution from Gray Associates software and gross revenue and instructional cost. (You can request this information from IR.)

2. Provide the program's budget for the last three years. Explain how the budget is allocated to the program in question.  Based on the data in this section, please write a recommendation for budget changes justifying this recommendation with the data you provided. Write an analysis of what these data indicate about your program.

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **6.1** | The program is a revenue generator that contributes to cover the deficit of other programs. The GA margin is in the black.  The gross revenue to instructional cost is larger than 1.0. There are more than 17 FTE per full-time faculty member. | The program finances are healthy and breaks even. There is at least 17 FTE per full-time faculty member.  The gross revenue to instructional cost is larger than 0.95. | The program runs with a deficit but the gross revenue to instructional cost is at least 0.8. The FTE is less than 17 per full-time faculty member. | The program runs with a huge deficit. Its instructional cost is way beyond the revenue generated (The gross revenue to instructional cost is less than 0.8). The FTE is less than 10 per full-time faculty member. |
| **6.2** | The budget is enough to cover all needs of the program and provides for additional opportunities (services and professional opportunities).If applicable, the budget is sustainable after grant funding expires. | The budget is enough to cover instructional costs for the number of students served. Professional development, supplies, or equipment are not allocated.  If applicable, the budget is sustainable after grant funding expires. | The budget is low  and relies on a high number of adjunct faculty. If applicable, the budget is not stable after grant funding expires. | The budget is not enough to sustain even  the most indispensable instructional costs. If applicable, the budget is not stable after grant funding expires. |

Reviewer 1

6.1 Score – Fails to Meet criteria (0)

According to the documents provided, the gross revenue to instructional cost ratio is .42 ($97,756 / $233,190)

I could not find the FTE for the “Electrical Trades” concentrations in the documents provided.  However, according to the self-study, there were 22 full-time students in the fall of 2024 which would put the program in the “exemplary” ranking.

Plumbing Technology (Aas & Cert)

6.1 Score – Fails to Meet criteria (0)

According to the documents provided, the gross revenue to instructional cost ratio is .5 ($31,796 / $63,487)

I could not find the FTE for the “Plumbing Technology” concentrations in the documents provided.

It was noted that there were 204 full-time students in the fall of 2023.  It could not be ascertained if this was for all programs offered or a subset of the programs.

All technical trades

6.2 –No score due to insufficient comprehensibility.   Describe how the program is being effective with its resources.  Provide Program Economics from Gray Associates including the ratio between gross revenue and instructional cost as well as the Program Economics Waterfall as evidence. Provide the 3-year Program Marginal Contribution from Gray Associates software and gross revenue and instructional cost. (You can request this information from IR.)

**Criterion 7: External Stakeholders**

1. Provide context for the status of the discipline today. What are some emerging trends in this discipline across the country? What is happening in the industries related to this discipline?

2. Describe the selection and work of the local advisory council for the program, including the membership (name, contact information, and societal role). Describe the meetings and present sample agendas as well as minutes of advisory council meetings. Where are the minutes electronically archived (provide specific details where to find them)? In what ways has the local advisory council helped to plan, develop, evaluate. and promote the program?

3. Identify and discuss how similar programs compare to your program in terms of size, curriculum, and any relevant attributes. Include the Gray Associates Score Cards for the CIP codes of the program (or related). Indicate how your program aligns to the factors listed on the Gray Associates Scorecard. Feel free to include up to five relevant CIP codes. (Request a Gray Associates Scorecard from IR.)

4. How do state, national or industry standards relate to the program curriculum and student learning outcomes? (Attach matrix of competencies.) If applicable, describe the process for aligning syllabi and course sequencing to standards listing in above.

5. Describe the process for ensuring that teaching and learning materials are current, unbiased, and are of sufficient quality and quantity to serve the needs of the students and those of the industry.

6. Describe the national, regional, state and local outlook for this occupation or related field. What are the current and projected job openings per year (use Gray Associates Software to develop the narrative)?

7. Does the program participate in job fairs or collaborate with local/state/national organizations to place graduates in jobs or further educational opportunities (include a list of the last three years events)

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| **Rubric Category** | **Exemplary (3)** | **Acceptable (2)** | **Early Development (1)** | **Fails to Meet Criteria (0)** |
| **7.1**  **3** | The review discusses program relevance in the world today. The  program demonstrates responsiveness to local, regional, and national workforce needs. The review encompasses related industries in this analysis. | The review discusses program relevance in the world today. The  program demonstrates responsiveness to  workforce needs. The review encompasses related industries in this analysis. | The review discusses program relevance in the world today. The program demonstrates responsiveness to workforce needs. | The review discusses program relevance in the world today. The review fails to demonstrate responsiveness workforce needs or address related industries in this analysis. |
| **7.2**  **2** | The review provides information on selection processes and outlines expectations of the EAC. The review includes relevant details about how this program impacts the college, community, and service areas. The review includes meeting agendas, minutes, and location of EAC documents. It  indicates EAC contributions beyond meetings with tangible outcomes. | The review provides information on selection processes and outlines expectations of the EAC. The review includes relevant details about how this program impacts the college and service areas. The review  includes meeting agendas, minutes, and location of EAC documents. It  indicates EAC contributions beyond meetings in mandatory fashion but could do so more frequently and with more tangible outcomes. | The review provides information on selection processes and outlines expectations of the EAC. The review includes relevant details about how this program impacts the college or service areas (but not both). The review includes meeting agendas, minutes, and location of EAC documents. | The review fails to acknowledge a selection process and expectations for an EAC. The review fails to include meeting agendas, minutes, and location of EAC documents. |
| **7.3**  **1** | The review identifies program competitors and is responsive to student needs and demands. The review reflects all GA factors that are in the top 70th percentile. | The review identifies the program competitors but does not discuss student needs or demands. The review reflects 3 of 5 GA factors in the top 70th percentile. | The review indicates vague knowledge of competitors. The review reflects 2 of 5 GA factors in the top 70th percentile. | The review fails to identify competitors in the market/area. All GA factors are in the bottom 50th percentile. |
| **7.4**  **3** | The review cites applicable workforce trends and/or discipline specific accreditation expectations used to inform curriculum development. The alignment of syllabi and course sequencing is evidence in response to trends and expectations for the program. | The review cites applicable workforce trends and/or discipline specific accreditation expectations used to inform curriculum development. The alignment of syllabi and course sequencing is seemingly relevant in response to trends and expectations for the program. | The review cites some workforce trends and/or discipline specific accreditation expectations used to inform curriculum development. | The review fails to connect workforce trends with curricular development. |
| **7.5**  **2** | The review cites applicable workforce trends and/or discipline specific accreditation expectations used to inform curriculum development. The alignment of syllabi and course sequencing is evidence in response to trends and expectations for the program. More than 70% of active courses have been reviewed, updated, or deactivated within the past three years. | The review discusses how the program matches what is taught in the classroom with work performed in business and industry. The program indicates an analysis of alignment and currency was performed. 11-70% of active courses have been reviewed, updated, or deactivated within the past three years. | The review loosely aligns  what the program taught in the classroom with work performed in business and industry.  10% or fewer of active courses have been reviewed, updated, or deactivated within the past three years. | The review fails to align what is taught in the program with work performed in business and industry. Active courses are not reviewed. |
| **7.6**  **3** | The review provides GA current and projected job openings per year. Job placement and salary data demonstrates sustained employment and ability to earn the regional living. wage for completers. | The review provides GA current and projected job openings per year. Job placement and salary data suggests future, if not immediate, sustained employment for completers. | The review loosely aligns the program with GA current and projected openings per year. Salary for graduates is not markedly higher than those directly beginning employment. | The review fails to align the program with GA current and projected openings per year. |
| **7.7**  **2** | The review indicates the program participates in job fairs and collaborates with local.state, and/or national organizations to place graduates. The program is able to provide qualitative and quantitative data regarding placement/further education.  Improvements and follow up based on data and analysis are articulated. | The review indicates the program participates in job fairs and collaborates with local.state, and/or national organizations to place graduates. The program is able to provide qualitative and quantitative data regarding placement/further education. | The review indicates the program participates in job fairs and collaborates with local.state, and/or national organizations to place graduates. | The review does not provide evidence of participation in job fairs or collaboration with local, state, and/or national organizations to place graduates. |

Factual Observation:

Meeting records show low membership from the external advisory council (attendance of only one or two members). Reported meeting dates and memberships:

Jan10, 2022 meeting, only one external member (UA 412)

Oct 20, 2023 meeting, only two external members (UA 412)

June 21, 2021, Work Based Learning Coalition Meeting (is it NNMCC Trades meeting?)

The review reflects all Gray Associates factors in the bottom 50 percentile.

The report presents ratios of program revenue to instructional costs that are negative, without any justification or interpretation. Are they being interpreted appropriately?

Electrical Technology: -0.42

Plumbing Technology: -0.5

The review demonstrates a strong alignment with workforce needs, especially through effective collaboration with local trade unions and the Workforce Initiative Network. The program benefits from strong job placement partnerships and an outlook consistent with the growing demand in the skilled trades.

**Recommendations for Improvement:**

Technical Trades programs could help from more membership and involvement of the advisory council. The programs should look into possible reasons and any potential changes needed in terms of the program offerings, certifications etc., to improve on the Gray Associate factors, or on equivalent metrics.

Strengthening the process for regularly reviewing and updating teaching materials would ensure that the curriculum stays fully aligned with current industry standards and trends. Continue engagement with industry-specific experts in curriculum development to incorporate emerging technologies and trends, ensuring the program stays aligned with the latest industry needs. Expand partnerships with local employers and unions to provide more internships or apprenticeships, enhancing hands-on experience and improving job readiness for graduates.