

PCCUA ASSESSMENT FORM

Division: Applied Technology
Program: General Technology
Date: 2024-25 Academic Year

Dean: J. St. Columbia
Instructors: J. Walker/M. Shaw
Term: Fall Spring Summer

PCCUA ASSESSMENT GUIDING QUESTIONS

Please respond based on the departmental discussion of the program assessment and how those outcomes reflect what students are learning and what needs to happen to improve student learning. You may provide this in a narrative or bulleted format. However, you must respond to each question and these responses should be based on your program assessment discussions. **Please respond in red font.**

Program Student Learning Outcomes

- A. Are the intended educational (learning) outcomes for the program appropriate and assessed appropriately?

The outcomes are appropriate and meet industry standards. Graduates indicate they are well prepared for job entry, and employees express satisfaction.

- B. How are the faculty and students accomplishing the program's student learning outcomes?

The College has many tools which students can use which ensures they are ready for safety and use. We also teach students about changing technology and as time change students need to be prepared to address those changes.

- C. How is the program meeting market/industry demands and/or preparing students for advanced study?

A student searching for employment finds it. Also, we find that many local businesses come to us to recruit potential employees.

- D. Do course enrollments and program graduation/completion rates justify the required resources?

The students at PCC are far more interested in multiple certificates which teach a variety of skills over the General Technology AAS. Additionally, employers are more interested in this. It makes retaining a student to acquire the AAS difficult.

- E. Based on the Program SLO's how well are students learning at the course and program level? Based on your assessment outcomes, how do you know this?

Every graduate we have had we place. However, we have far more student seeking certificates.

- F. What are the changes you need to make to improved student learning?

Increasing the number of students acquiring an AAS is the priority for next year. We must find a way to make it easy for em[employed certificated completers to acquire the AAS.

- G. What are the weak areas demonstrating a need for improvement?

Recruiting students to complete the AAS.

- H. What are the strengths identified through assessment?

Industry employers like PCC graduates. Many hire them before they complete a degree.

Program Curriculum

- A. Is the program curriculum appropriate to meet current and future market/industry needs and/or to prepare students for advanced study? Is that reflected in the assessment outcomes?

Yes, at the annual industry meeting, companies have provided us with suggestions which we usually take. The corporations are very satisfied with our programming.

- B. Are program exit requirements appropriate?

Yes, we take exit surveys from our students as they leave the program.

- C. Are students introduced to experiences within the workplace and introduced to professionals in the field?

Yes, they are but we should do much more of this and plan to try to incorporate it in the instruction.

- D. Does the program promote and support interdisciplinary initiatives?

All students acquiring an AAS must take Composition I & II, Computer Information Systems, Tech Math, and Speech. Certificate students are not required to complete these courses.

- E. Does the program support the college STACC skill development expected of all PCCUA graduates? . Explain how you know this through assessment.

Instructors work hard to address these core competencies in and out of the classroom

Social and community responsibility are part of what is expected when complete class projects for the community and the college.

Technology Utilization is taught by teaching student state of the art tools and processes. Those getting and AAS must take computer information systems.

Analytical, critical thinking is taught and evaluated when our students applying manufacturing best practices and technologies to evaluate real world manufacturing problems related to testing and validation.

Communication is integrated into our teaching because all aspects of general technology require students to engage customers and coworkers. We also teach students to communicate in an effective, courteous, and precise manner.

Cultural Competency is taught in tandem with communication. We stress courteous, effective, and precise communication when engaging others in conversation.

- A. Does the program provide respect and understanding for cultural diversity as evidenced in the curriculum, in program activities, in assignment of program responsibilities and duties; in honors, awards, and scholarship recognition; in recruitment?

Yes, it does. All students are eligible for the program without regard to race gender, socioeconomic or any other factors., This is an equal opportunity open to all.

Budget Requests Forms

Are more resources needed? If so, has there been an effort to acquire these resources through the college budgeting process?

It is important to do tool inventories. It may be time to replace certain tools that have a lot of wear and tear. Also, some of the tools are misplaced or have disappeared.

What program requests did you make for the next year that are tied to needs related to assessment outcomes?

None but we will do a tool inventory.

ASSESSMENT OF GENERAL TECHNOLOGY 2024-25

DESCRIPTION

Due to the increased mechanization and use of technology, the need for physical strength is no longer a requirement in most jobs, but rather skills and knowledge in industrial technology, operating specialized machinery, and understanding the systems and processes involved in the production of goods. American manufacturers are becoming increasingly dependent upon the use of high-tech equipment that involves multiple, integrated systems. Jobs in manufacturing usually involve planning, managing, and performing the processing of materials into intermediate or final products. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot, and maintain this high-tech equipment.

PCCUA's has a state-of-the-art manufacturing lab, where students are able to learn valuable skills to prepare them for careers in industry. Embedded within the Associate of Applied Science in General Technology program are the Technical Certificate and Certificate of Proficiency in Advanced Manufacturing and the Certificate of Proficiency in HVAC

STUDENT LEARNING OUTCOMES

Students enrolled in the General Technology program will perform the following tasks.

- Students will apply concepts in advanced manufacturing and operations to analyze issues related to quality management in multiple contexts and recommend solutions.
- Students will apply manufacturing best practices and technologies to evaluate real world manufacturing problems related to testing and validation.
- Students will use standards of measurements to conduct investigations and identify errors.
- Students will address real world problem within a manufacturing company and work to develop targeted solutions that will require leadership and knowledge specific to the manufacturing environment.
- Students will recognize safety hazards and potential safety issues and apply safe work practices and procedures in accordance with OSHA standards to safely handle tools, personal protective equipment, and a variety of materials used in manufacturing.
- Students will be able to analyze manufactured products to identify processes and materials used

STUDENT SUCCESS

AWARD	2024-25	2023-24	2022-23	2021-22	2020-21
AAS Geb Tech	1	1	0	0	0
CP Ad. Manufacturing	17	4	12	7	16
CP HVAC	17	31	21	13	18
Total Awards	44	36	33	20	34

Note the course are integrated with CP course offerings, some of which can replace a course or be selected as a n elective.

	Course Name and No.	Assessment Method(s) and Tool(s)	Time/Frequency of Assessment	Benchmark, if known	Outcome	Actions Related to Outcomes
Students will apply concepts in advanced manufacturing and operations to analyze issues related to quality management in multiple contexts and recommend solutions.	AMST 12303 Intro to Manufacturing AMST 12343 Principles of HVAC	Comprehensive Final Exam Demonstration with written test	Every time course is taught	100% of the students will score 90% or higher	AAS1/1=100% CERT 24/28=85.7% AAS1/1=100% CERT 80.2%	The student seeking and AAS met the 90% benchmark Certificate students did not meet the benchmark. Oral review before the final exam will be provided to improve testing outcomes.

<p>Students will apply manufacturing best practices and technologies to evaluate real world manufacturing problems related to testing and validation.</p>	<p>AMST 12133 Design for Manufacturing AMST 12301 Manufacturing Power Lab</p> <p>AMST 12703 Engineering Design and Problem Solving</p>	<p>Basic Hands on Evaluation of Project -Rubric</p> <p>Problem with solution</p>	<p>Every time course is taught</p>	<p>70% of the students will score 70% or higher</p>	<p>AAS=100% CERT=86%</p> <p>AAS=100% CERT=80.7%</p>	<p>Met Benchmark</p> <p>Only 1 AAS student</p> <p>Met Benchmark Only 1 AAS student</p>
<p>Students will use standards of measurements to conduct investigations and identify errors.</p>	<p>AMST 12203 Manufacturing Production Processes</p> <p>AMST 16303 Basics of Blueprints and Industrial Maintenance</p> <p>AMST 10151 Industrial Electricity Lab</p> <p>AMST 14303 Hydraulics and Pneumatics</p>	<p>Test</p> <p>Test/Demonstration</p> <p>Demonstration/Rub.</p> <p>Test/Demo</p>	<p>Every time course is taught</p>	<p>70% of the students will score 70% or higher</p>	<p>AAS=100% CERT=N/A</p> <p>AAS=100% CERT=70.3%</p> <p>AAS=100% CERT=85.7%</p> <p>AAS=100% CERT=N/A</p>	<p>Met Benchmark</p> <p>Standard barely met. A more comprehensive review will be provided.</p> <p>Met Benchmark</p>

<p>Students will address real world problem within a manufacturing company and work to develop targeted solutions that will require leadership and knowledge specific to the manufacturing environment.</p>	<p>AMST 12133 Design for Manufacturing</p> <p>AMST 12703 Engineering Design and Problem Solving</p> <p>MSTE 10103 Instrumentation Principles</p>	<p>Basic Hands on Evaluation Rubric</p>	<p>Every time course is taught</p>	<p>70% of the students will score 70% or higher</p>	<p>AAS=100% CERT=85.7% 24/28</p> <p>AAS=100% CERT=N/A</p> <p>AAS=100% CERT=N/A</p>	<p>Met Benchmark</p> <p>Met Benchmark</p> <p>Met Benchmark</p>
<p>Students will recognize safety hazards and potential safety issues and apply safe work practices and procedures in accordance with OSHA standards to safely handle tools, personal protective</p>	<p>AMST 12303 Intro to Manufacturing</p> <p>AMST 12333 Manufacturing Power and Equipment</p> <p>INEG 10103 Industrial Safety and Sanitation (HVAC)</p>	<p>Basic Hands-on Evaluation /Test Rubric</p> <p>Test</p> <p>Basic Hands-on Evaluation /Test Rubric</p>	<p>Every time the course is taught</p>	<p>70% of the students will score 70% or higher</p>	<p>AAS=100% CERT=85.7%</p> <p>AAS=100% CERT=88%</p> <p>AAS=100% CERT=N/A</p>	<p>Met Benchmark</p> <p>Met Benchmark</p> <p>Met Benchmark</p>

equipment, and a variety of materials used in manufacturing.	AMST 13303 Industrial Electricity (HVAC)	Test/Demo			AAS=100% CERT=N/A	Met Benchmark
	IT 273/AMST 17303 Industrial Heavy Equipment	Operations Test			AAS=100% CERT=90%	Met Benchmark
Students will be able to analyze manufactured products to identify processes and materials used	AMST 12203 Manufacturing Production Processes	Basic Hands-on Evaluation Rubric		70% of the students will score 70% or higher	AAS=1/1 100% CERT=88%	Met Benchmark

Workday Course Prefix and Number Conversion Table

IT 113 / INEG 10103
 IT 133 / AMST 13303
 IT 001 / MSTE 10151
 IT 163 / AMST 16303
 IT 214/AMST 11404
 IT 223 / AMST 12343
 IT 243/AMST 14303
 IT 273/AMST 17303
 IT 1203/AMST 12303
 IT 1213/AMST 12133
 IT 223/AMST 12203
 IT 1233/AMST 12333

IT 1231/MSTE 10103

IT 1273/AMST 12703