PCCUA ASSESSMENT FORM

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

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?
Yes, we are using material that was approved before I came. That has proven to be invaluable.

B. How are the faculty and students accomplishing the program's student learning outcomes?
PowerPoints and discussions are the best teaching resources. E do a lot of hands-on activities, followed by tests and the lab gives us time to do additional electrical and HVAC checks.

C. How is the program meeting market/industry demands and/or preparing students for advanced study?
One of the first steps is to train students to use handtools, measuring devices (this is hard for them), and safety precautions.

D. Do course enrollments and program graduation/completion rates justify the required resources?
Yes, the students use knowledge gained from the course to work on personal projects they select and I evaluate. I hate to say grade, it is really more of observing, using a rubric, and scoring quality and precisions.

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?
Students are capable of working on more complex projects. We have done boxes and various kinds of projects. I see that it is time to think about some new projects but I also make sure students have an opportunity to select a project that interests them.

F. What are the changes you need to make to improved student learning?
The NCCER rubrics have been very helpful in evaluating the work students do. It also means that I am fair in the assessment. I would not be unfair but the rubrics are something students can see and understand.

G. What are the weak areas demonstrating a need for improvement?
Some of our tools are not up to date and we need to replace these. Otherwise, the lab and materials have been great.

H. What are the strengths identified through assessment?
Students learn tool names and processes before they begin working. A common vocabulary in the early part of a term is very important.

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?

The program curriculum is NCCER based an appropriate for our students. The program comes with templates and lots of other resources.

B. Are program exit requirements appropriate?

I would like to see another tier of construction but since I am only a second year instructor, I need to see what works best. At this time the exit requirements are adequate. All students do not graduate at the same time and it might be useful to move a part-time person along. Companies recruit our students before they finish the degree which is a shame.

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

I do try to make the class like it was when I was in college. I graduated from Berea College and my courses were set up like a job. I haven't been able to build the kind of relationship with companies to do this yet but I hope to be able to have more work site opportunities in the future.

D. Does the program promote and support interdisciplinary initiatives?
Yes, students take math and English, so those seeking an AAS do have general education courses. Being able to write adequately and use business skills, which they get in a Business Communication class, makes the student more employable. The students also take a sociology or psychology course, and either is good in terms of their understanding of institutions, people, and society

E. Does the program support the college STACC skill development expected of all PCCUA graduates? Explain how you know this through assessment.
All of the STACC skills are integrated into the curriculum.

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

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

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

STUDENT SUCCESS

DEGREE OR CERTIFICATE	2025	2024	2023	2022	2021
AAS IN CONSTRUCTION	5	3	1	2	1
TC IN CONSTRUCTION	3	1	4	0	1
CP IN CONSTRUCTION	8	20	14	11	12
TOTAL CONSTRUCTION AWARDS	16	24	19	13	14

PROGRAM LEARNING OUTCOMES

Program Student Learning Outcomes (SLOs)

The PCCUA Construction Program uses the National Center for Construction Education & Research (NCCER) curriculum.

- Use basic carpentry techniques
- Apply masonry strategies
- Demonstrate skills for basic metal working
- Understand and apply basic electrical wiring

- Demonstrate welding necessary for construction activities
- Operate heavy equipment such as a cherry picker, back hoe, and crane
- Completion a site-based construction project
- Demonstrate site layout, reinforcing materials, electrical installations and safety.
- Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic rigging, basic communication skills.
- Apply basic employability skills,
- Demonstrate functional knowledge of trades, building materials, fasteners, adhesives, and site layout.
- Use advanced applications and construction methods for various types of horizontal formwork for types of elevated decks and the formwork systems and methods used in their construction

ASSESSMENT 2024-25

Course SLOs	Course(s) Tied to PLO	Program SLOs and Assessment Tool	Benchmark	Action Plan
Students will demonstrate the ability to solve problems related to basic carpentry/Construction Systems (Analytical and Critical Thinking)	CC 103 Construction I	Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic communication skills. Pre/Post Test Basic Hands on Evaluation Rubric	70% of the students will score 70% or higher 82.7% was the cohort average	Met PLO
Students will be able to apply masonry strategies	CC103 Construction I	Demonstrate functional knowledge of trades, building materials used for masonry. Demonstration and evaluation of skill.	70% of the students will score 70% or higher 82.7% of the cohort met this PLO	Met PLO
Students will have a basic understand of blueprints (Analytical and Critical Thinking)	IT 163 Blueprints and Industrial Maintenance	Demonstrate use of basic safety, basic math, blue print reading, basic communication skills	70% of the students will score 70% or higher	Met this PLO

			28/29 or 96.5% of the students met this PLO	
Students will demonstrate skills for basic metal working. (Technology Utilization)	CC 113 Construction II WG 113 Basic Welding	Use advanced applications and construction methods using metals. Pre/Post Test Basic Hands on Evaluation Rubric	70% of the students will score 70% or higher 80.9% of the cohort met this PLO	Met PLO
Understand and apply basic electrical wiring	IT 133 Basic Electricity	Identifies electrical components and form a schematic diagram	70% of the students will score 70% or higher 26/29 or 89.6% met this PLO.	Met this PLO
Demonstrate welding necessary for construction activities Technology Utilization)	WG 115 Introduction to Welding	Demonstrate site layout, reinforcing materials, electrical installations and safety	70% of the students will score 70% or higher 96.2% of the cohort were able to demonstrate this PLO	Met PLO
Operate heavy equipment such as a cherry picker, back hoe, and crane	CC 113 Construction II CC 001 Construction Lab (Simulator)	Demonstrate with the simulator operational skills of various equipment. Hands-on experience with fork lift, back hoe and cherry picker.	70% of the students will score 90% or higher 89.6% of the cohort met this PLO. 26/29	PLO met
Demonstrate site layout, reinforcing materials, electrical installations and safety.	IT 113 Industrial Safety and Sanitation	Demonstrate application of electrical installation skills. Pre/Post Test Basic Hands on Evaluation Rubric	80% of the students will score 80% or higher 89.6% or 26/29 students were able to score higher than an 80%	PLO met

Students will demonstrate knowledge of a safe tool and equipment operations. (Social and Civic Responsibility)	IT 113 Industrial Safety & Sanitation	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 and construction. Assed through Pre/Post Test Basic Hands on Evaluation Rubric	100% of the students will score 90% or higher 100% of the student met this PLO	PLO met and exceeded standard.
Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic rigging, basic communication skills.	IT 113 Industrial Safety and Sanitation IT 133 Industrial Electricity	Demonstrate use of basic safety, basic math, hand tools, power tools, blue print reading, basic communication skills.	80% of the students will score 90% or higher 82.7% of the cohort scored 80% or higher.	Did not meet this PLO Students know the safety stnadars but sometimes fail to apply these which is dangerous. This may need to be taught and retaught throughout the term.
Apply basic employability skills,	CC 113 Construction II CC 001 Construction Lab	Apply basic employability and interpersonal communication skills	70% of the students will score 70% or higher	Did not meet this PLO which is odd but it relied on a test which may be an inappropriate measure.
Demonstrate functional knowledge of trades, building materials, fasteners, adhesives, and site layout	CC 113 Construction II	Apply the use of building materials, fasteners, adhesives, and sit layout needs	70% of the students will score 70% or higher 86.2% were able to meet this standard.	PLO met

Use advanced applications and construction methods for various types of horizontal formwork for types of elevated decks and the formwork systems and methods used in their construction	IT 133 Industrial Electricity WG 125 ARC Welding WG 145 Inert Gas Welding I	Use electrical and welding skills needed for construction and integrated electrical operations. Demonstration test.	70% of the students will score 80% or higher 82.7% of the cohort scored above 80%	Met PLO but just barely. It is important to spend more time on the need for integrating skills and safety related to multiple skills.
Students will understand blueprints and electrical measurements. (Analytical and Critical Thinking)	IT-163 Blueprint Reading	Demonstrate use of blue print reading needed for construction.	70% of the students will score 70% or higher 86.2% met this standard.	Met PLO
Students will be able to work with clients on specific projects. (Cultural Competence).	CC 113 Construction II	Work with people from different cultural groups in a manufacturing environment	100% of the students will score 90% or higher 82.7% met this PLO	Did not meet this PLO and it is difficult to say why. It should not be hard. The rubric used for scoring may be too difficult so we need to evaluate that.
Students will demonstrate knowledge of the maintenance procedures on the HVAC system. (Analytical and Critical Thinking)	IT 223 HVAC	Apply principles used to install and troubleshoot air conditioning, heat pumps, furnaces, and system controls.	80% of the students will score 80% or higher 82.7% was the average outcome	Met this PLO

Note: NCCER guideliens helped with organizing the PLOs. Many students did not graduate because HVAC was not offered in the summer of 2025. Number are large because HVAC summer numbers are calculated with the following year when the course ends after July 4.