

Program Assessment

2021-2022

Engineering, Physical Science & Process Technology

Process Technology	
Date	Click or tap to enter a date.
Competency # and Description	1. Communicate technical information related to process technology
Course	PTEC 1113 – Intro to Process Technology PTEC 1124 – Process Troubleshooting PTEC 1313 – Safety, Health & Work Pract PTEC 2014 - Process Tech I - Equipment PTEC 2024 – Industrial Instrumentation PTEC 2124 – Process Tech II - Systems PTEC 2243 – Principles of Quality
Activity	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 1313 – Final Exam PTEC 2014 – Final Exam PTEC 2024 – Final Exam PTEC 2124 – Final Exam PTEC 2243 – Final Exam
Measurement (attached copy of instrument with point distribution)	PTEC 1113 – Written Projects (2) PTEC 1124 – Final Exam PTEC 1313 – Final Exam PTEC 2014 – Final Exam PTEC 2024 – Final Exam PTEC 2124 – Final Exam (Specific Questions, related to technical information) PTEC 2243 – Final Exam
Evaluation Criteria	Overall goal at this point is 70% passing for each item.
Fall 2021 Results	Saw a slight decline in the overall data.
Interpretation of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Reflection of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Actions for Fall 2022 Based on Results	No changes are recommended, trying to determine if the previous year was impacted by COVID and lower enrollment.
Timeline for Review	Fall data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Past Data and Actions	
Past results	2015-2016 Results PTEC 1113 – Data not collected PTEC 1124 – 10 out of 12 - 83% passed PTEC 1313 – 16 out of 18 - 89% passed PTEC 2014 – 15 out of 17 - 88% passed PTEC 2024 – 17 out of 21 - 81% passed PTEC 2124 – 12 out of 13 - 92% passed

	<p>PTEC 2243 – Data not collected</p> <p>2016-2017 Results PTEC 1113 – 27 out of 28 – 96% passed PTEC 1124 – 18 out of 18 – 100% passed PTEC 1313 – 16 out of 18 – 89% passed PTEC 2014 – 17 out of 21 – 81% passed PTEC 2024 – 21 out of 22 – 95% passed PTEC 2124 – 13 out of 17 – 76% passed PTEC 2243 – 16 out of 16 – 100% passed</p> <p>2017-2018 Results PTEC 1113 – 13 out of 10 – 77% passed PTEC 1124 – 18 out of 18 – 100% passed PTEC 1313 – 25 out of 19 – 76% passed PTEC 2014 – 17 out of 21 – 81% passed PTEC 2024 – 16 out of 20 – 80% passed PTEC 2124 – 8 out of 19 – 42% passed PTEC 2243 – 18 out of 20 – 90% passed</p> <p>2018-2019 Results PTEC 1113 – 12 out of 18 – 66.7% passed PTEC 1124 – 18 out of 18 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 21 out of 21 – 100% passed. PTEC 2024 – 16 out of 19 – 84% Passed PTEC 2124 – 14 out of 18 – 77% Passed PTEC 2243 – 17 out of 19 – 89.5 % Passed</p> <p>2019-2020 Results PTEC 1113 – 18 out of 20 – 90.0% passed PTEC 1124 – not collected due to change in semester. PTEC 1313 – not collected due to change in semester. PTEC 2014 – not collected due to change in semester. PTEC 2024 – not collected due to change in semester. PTEC 2124 – 19 out of 19 – 100% passed. PTEC 2243 – 15 out of 18 – 83.3% passed.</p> <p>2020-2021 Results PTEC 1113 – 18 out of 18 – 100% passed PTEC 1124 – 16 out of 16 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 15 out of 15 – 100% passed. PTEC 2024 – 14 out of 16 – 87.5% Passed PTEC 2124 – 16 out of 16 – 100% Passed PTEC 2243 – 16 out of 16 – 100% Passed</p> <p>2021-2022 Results PTEC 1113 – 15 out of 15 – 100% passed PTEC 1124 – 11 out of 11 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 14 out of 16 – 87.5% passed PTEC 2024 – 17 out of 18 – 94% Passed PTEC 2124 – 11 out of 12 – 92% Passed PTEC 2243 – 13 out of 13 – 100% Passed</p>
Summary of changes	<p>2018-2019 To incorporate more questions and assignments where students need to describe or present technical information related to processes.</p> <p>2019-2020 No Changes are recommended at this time to allow for comparison of changes previously made.</p>

	<p>2020-2021 No changes were recommended due to COVID restrictions.</p> <p>2021-2022 No changes are recommended at this time to allow for more data acquisition.</p>
Date	Click or tap to enter a date.
Competency # and Description	2. Identify common equipment including the use of components and their characteristics
Course	PTEC 1113 – Intro to Process Technology PTEC 1124 – Process Troubleshooting PTEC 1313 – Safety, Health & Work Pract PTEC 2014- Process Tech I - Equipment PTEC 2024 – Industrial Instrumentation PTEC 2124 – Process Tech II - Systems
Activity	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 1313 – Final Exam PTEC 2014 – Final Exam PTEC 2024 – Final Exam PTEC 2124 – Final Exam
Measurement (attached copy of instrument with point distribution)	PTEC 1113 – Exam #3 specific to equipment PTEC 1124 – Final Exam PTEC 1313 – Final Exam PTEC 2014 – Final Exam PTEC 2024 – Final Exam PTEC 2124 – Final Exam (Specific question related to equipment)
Evaluation Criteria	Overall goal at this point is 70% passing for each item.
Fall 2021 Results	Saw a slight decline in the overall data.
Interpretation of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Reflection of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Actions for Fall 2022 Based on Results	No changes are recommended, trying to determine if the previous year was impacted by COVID and lower enrollment.
Timeline for Review	Fall data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Past Data and Actions	
	<p>2015-2016 Results PTEC 1113 – data not collected PTEC 1124 – 10 out of 12 – 83% passed PTEC 1313 – 15 out of 18 – 83% passed PTEC 2014 – 14 out of 17 – 82% passed PTEC 2024 – 17 out of 21 – 81% passed PTEC 2124 – 12 out of 13 – 92% passed</p> <p>2016-2017 Results</p>

	<p>PTEC 1113 – 18 out of 18 – 100% passed PTEC 1124 – 13 out of 17 – 76% passed PTEC 1313 – 21 out of 21 – 100% passed PTEC 2014 – 21 out of 22 – 95% passed PTEC 2024 – 16 out of 21 – 76% passed PTEC 2124 – 13 out of 17 – 76% passed</p> <p>2017-2018 Results PTEC 1113 – 11 out of 13 – 84% passed PTEC 1124 – 16 out of 18 – 88% passed PTEC 1313 – 22 out of 25 – 88% passed PTEC 2014 – 17 out of 21 – 81% passed PTEC 2024 – 16 out of 20 – 80% passed PTEC 2124 – 12 out of 19 – 83% pas</p> <p>2018-2019 Results PTEC 1113 – 12 out of 18 – 66.7 Passed PTEC 1124 – 18 out of 18 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 21 out of 21 – 100% Passed PTEC 2024 – 18 out of 19 – 95% Passed PTEC 2124 – 15 out of 18 – 83% Passed</p> <p>2019-2020 Results PTEC 1113 – 18 out of 20 – 90.0% passed PTEC 1124 – not collected due to change in semester. PTEC 1313 – not collected due to change in semester. PTEC 2014 – not collected due to change in semester. PTEC 2024 – 18 out of 19 – 95% Passed PTEC 2124 – 19 out of 19 – 100% passed.</p> <p>2020-2021 Results PTEC 1113 – 18 out of 18 – 100% Passed PTEC 1124 – 16 out of 16 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 15 out of 15 – 100% Passed PTEC 2024 – 18 out of 19 – 95% Passed PTEC 2124 – 16 out of 16 – 100% Passed</p> <p>2021-2022 Results PTEC 1113 – 15 out of 15 – 100% Passed PTEC 1124 – 11 out of 11 – 100% passed PTEC 1313 – 19 out of 19 – 100% passed PTEC 2014 – 14 out of 16 – 87.5% passed PTEC 2024 – 13 out of 18 – 72% Passed PTEC 2124 – 11 out of 12 – 92% Passed</p>
Summary of changes	<p>2018-2019 No changes</p> <p>2019-2020 No Changes are recommended as current assessment is meeting the needs of the program.</p> <p>2020-2021 No Changes are recommended at this time to allow for comparision of changes previously made.</p> <p>2021-2022 No Changes are recommended at this time to allow for comparision of changes previously made</p>

Date	Click or tap to enter a date.
Competency # and Description	3. Identify common process including function, type, and equipment
Course	PTEC 1113 – Intro to Process Technology PTEC 1124 – Process Troubleshooting PTEC 2014- Process Tech I - Equipment PTEC 2124 – Process Tech II – Systems PTEC 2214 – Process Tech III - Operations
Activity	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 2014 – Final Exam PTEC 2124 – Final Exam PTEC 2214 – Final Exam
Measurement (attached copy of instrument with point distribution)	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 2014 – Final Exam PTEC 2124 – Final Exam PTEC 2214 – Overall Course Score
Evaluation Criteria	Overall goal at this point is 70% passing for each item.
Fall 2021 Results	Saw a slight decline in the overall data.
Interpretation of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Reflection of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Actions for Fall 2022 Based on Results	Changing the measurement for PTEC 2214 to better represent the information presented in the course.
Timeline for Review	Fall data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Past Data and Actions	
Past Results	<p>2015-2016 Results PTEC 1113 – no data collected PTEC 1124 – 7 out of 12 – 58% passed PTEC 2014 – 14 out of 17 – 82% passed PTEC 2124 – 12 out of 13 – 92% passed PTEC 2214 – no data collected</p> <p>2016-2017 Results PTEC 1113 – 18 out of 18 – 100% passed PTEC 1124 – 14 out of 18 – 83% passed PTEC 2014 – 13 out of 17 – 76% passed PTEC 2124 – 13 out of 17 – 76% passed PTEC 2214 – 17 out of 18 – 94% passed</p> <p>2017-2018 Results PTEC 1113 – 12 out of 13 – 92% passed PTEC 1124 – 16 out of 18 – 89% passed PTEC 2014 – 17 out of 21 – 81% passed PTEC 2124 – 10 out of 19 – 52% passed PTEC 2214 – 18 out of 18 – 100% passed</p>

	<p>2018-2019 Results PTEC 1113 – 12 out of 18 - 66.7% passed PTEC 1124 – 18 out of 18 – 100% passed PTEC 2014 – 21 out of 21 – 100% passed PTEC 2124 – 18 out of 18 – 100% passed PTEC 2214 – 18 out of 18 – 100% Passed</p> <p>2019-2020 Results PTEC 1113 – 18 out of 20 – 90.0% passed PTEC 1124 – not collected due to change in semester. PTEC 2014 – not collected due to change in semester. PTEC 2124 – 19 out of 19 – 100% passed. PTEC 2214 – not collected due to change in semester.</p> <p>2020-2021 Results PTEC 1113 – 18 out of 18 - 100% passed PTEC 1124 – 16 out of 16 – 100% passed PTEC 2014 – 15 out of 15 – 100% passed PTEC 2124 – 16 out of 16 – 100% passed PTEC 2214 – 16 out of 16 – 100% Passed</p> <p>2021-2022 Results PTEC 1113 – 15 out of 15 - 100% passed PTEC 1124 – 11 out of 11 – 100% passed PTEC 2014 – 14 out of 16 – 87.5% passed PTEC 2124 – 11 out of 12 – 92% Passed PTEC 2214 – 11 out of 11 – 100% Passed</p>
Summary of changes	<p>2018-2019 Provide more field opportunities to allow for field identification of equipment.</p> <p>2019-2020 No Changes are recommended at this time to allow for comparison of changes previously made.</p> <p>2020-2021 No Changes are recommended at this time to allow for comparison of changes previously made.</p> <p>2020-2021 No Changes are recommended at this time to allow for comparison of changes previously made.</p> <p>2021-2022 No Changes are recommended at this time to allow for comparison of changes previously made.</p>
Date	Click or tap to enter a date.
Competency # and Description	4. Apply chemistry and physics concepts to identify and solve processing problems
Course	PTEC 1113 – Intro to Process Technology PTEC 1124 – Process Troubleshooting PTEC 2014- Process Tech I - Equipment PTEC 2124 – Process Tech II – Systems CHEM 2014 – Process Organic Chem
Activity	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 2014 – Final Exam PTEC 2124 – Final Exam CHEM 2014 – Final Exam

Measurement (attached copy of instrument with point distribution)	PTEC 1113 – Final Exam PTEC 1124 – Final Exam PTEC 2014 – Final Exam PTEC 2124 – Final Exam CHEM 2014 – Final Exam
Evaluation Criteria	Overall goal at this point is 70% passing for each item.
Fall 2021 Results	Saw a slight decline in the overall data.
Interpretation of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Reflection of Results for Fall 2021	Have noticed students are not as engaged, thus the decline of the scores. Still meeting overall expectations.
Actions for Fall 2022 Based on Results	No changes are recommended, trying to determine if the previous year was impacted by COVID and lower enrollment.
Timeline for Review	Fall data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Past Data and Actions	
Past Results	<p>2015-2016 Results PTEC 1113 – no data collected PTEC 1124 – 9 out of 12 – 75% passed PTEC 2014 – 15 out of 17 – 88% passed PTEC 2124 – 12 out of 13 – 92% passed CHEM 2014 – no data collected</p> <p>2016-2017 Results PTEC 1113 – 18 out of 18 – 100% passed PTEC 1124 – 15 out of 18 – 88% passed PTEC 2014 – 21 out of 21 – 100% passed PTEC 2124 – 10 out of 19 – 52% passed CHEM 2014 – 12 out of 17 – 71% passed</p> <p>2017-2018 Results PTEC 1113 – 12 out of 13 – 92% passed PTEC 1124 – 16 out of 18 – 88% passed PTEC 2014 – 17 out of 21 – 81% passed PTEC 2124 – 13 out of 17 – 76% passed CHEM 2014 – 12 out of 17 – 71% passed</p> <p>2018-2019 Results PTEC 1113 – 12 out of 18 – 66.6 % Passed PTEC 1124 – 18 out of 18 – 100 % passed. PTEC 2014 – 21 out of 21 – 100% passed. PTEC 2124 – 18 out of 18 – 100% passed CHEM 2014 – 13 out of 15 – 86.7% passed</p> <p>2019-2020 Results PTEC 1113 – 18 out of 20 – 90.0% passed PTEC 1124 – not collected due to change in semester. PTEC 2014 – not collected due to change in semester. PTEC 2124 – not collected due to change in semester. CHEM 2014 – not collected due to change in semester.</p>

	<p>2020-2021 Results PTEC 1113 – 18 out of 18 – 100 % Passed PTEC 1124 – 16 out of 16 – 100 % passed. PTEC 2014 – 15 out of 15 – 100% passed. PTEC 2124 – 16 out of 16 – 100% passed CHEM 2014 – 11 out of 15 – 73.3% passed</p> <p>2021-2022 Results PTEC 1113 – 15 out of 15 – 100 % Passed PTEC 1124 – 11 out of 11 – 100 % passed. PTEC 2014 – 14 out of 16 – 87.5% passed PTEC 2124 – 11 out of 12 – 92% Passed CHEM 2014 – 10 out of 14 – 71.4% passed</p>
Summary of changes	<p>2018-2019 Incorporate information to allow the integration of these concepts for troubleshooting and electrical applications.</p> <p>2019-2020 No Changes are recommended at this time to allow for comparison of changes previously made.</p> <p>2020-2021 No Changes are recommended at this time to allow for comparison of changes previously made.</p> <p>2021-2022 No Changes are recommended at this time to allow for comparison of changes previously made.</p>

Summary of Program and Divisional Changes	
2016-2017	<ul style="list-style-type: none"> Opened PTEC 1113 and PTEC 1313 to all students. Offered PTEC 1113 as an online course to allow students to determine if PTEC was a degree area they were interested in pursuing. Began offering PRVD 2321 in the spring semester (now offered during both semesters). Participated in the National Troubleshooting Competition.
2017-2018	<ul style="list-style-type: none"> Participated in the National Troubleshooting Competition, sent one team to National Competition. Provided consistency with instructors, to allow for incorporation of current assignments.
2018-2019	<ul style="list-style-type: none"> Participated in the National Troubleshooting Competition, made alternate. Worked to provide consistency with instructors.
2019-2020	<ul style="list-style-type: none"> Incorporated virtual learning opportunities due to COVID
2020-2021	<ul style="list-style-type: none"> Continued with virtual learning opportunities.
2021-2022	<ul style="list-style-type: none"> Continuing with virtual learning opportunities. Expanding hybrid learning opportunities.

Recommendations for Program Changes

2017-2018	<ul style="list-style-type: none"> Schedule PTEC advisory meetings more frequently for recognition as a National PTEC program. Include representatives from Wind Energy companies on PTEC advisory board. Explore the possibilities of offering pipeline and electrical courses.
2018-2019	<ul style="list-style-type: none"> Provide more field opportunities for students in the Introduction to PTEC and System courses. Working with advisory group to realign some program questions to address turbines, electrical energy and pipeline considerations. Provide more opportunities to develop trouble shooting skills and hands-on applications.
2019-2020	<ul style="list-style-type: none"> Continue to work with advisory group. Provide a power generation course. Continue to implement prior changes. Providing more consistency in instruction.
2020-2021	<ul style="list-style-type: none"> Continue to work with advisory group. Provided a power generation course. Continue to implement prior changes. Providing more consistency in instruction.
2021-2022	<ul style="list-style-type: none"> Adding additional courses for PTEC students. Looking to include more hands-on opportunities Providing more professional development opportunities for PTEC instructors.
2022-2023	<ul style="list-style-type: none"> Looking to include more hands-on opportunities Providing more professional development opportunities for PTEC instructors. Providing supplemental courses (DATA analytics)

Ag, Science, & Engineering

Program Level Outcomes Timeline						
Program Objectives – Process Technology	Course Map	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1. Communicate technical information related to process technology	PTEC 1113 PTEC 1124 PTEC 1313 PTEC 2014 PTEC 2024 PTEC 2124 PTEC 2243	X	X	X	X	X
2. Identify common equipment including the use of components and their characteristics	PTEC 1113 PTEC 1124 PTEC 1313 PTEC 2014 PTEC 2024 PTEC 2124	X	X	X	X	X
3. Identify common process including function, type, and equipment	PTEC 1113 PTEC 1124 PTEC 2014 PTEC 2124 PTEC 2214	X	X	X	X	X
4. Apply chemistry and physics concepts to	PTEC 1113 PTEC 1124	X	X	X	X	X

identify and solve processing problems	PTEC 2014 PTEC 2124 CHEM 2014					
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