

# Program Assessment

2017-2018

## Ag, Science, & Engineering

<b>Math &amp; Physical Science – Pre-Engineering Option</b>	
Date	Click or tap to enter a date.
Competency # and Description	1. Use and apply physical data to solve problems
Course	PHYS 2014 – Engineering Physics I PHYS 2114 – Engineering Physics II MATH 2145 – Calculus I MATH 2155 – Calculus II
Activity	PHYS 2014 - Quizzes, exams PHYS 2114 – Quizzes, exams MATH 2145 – Word problems involving derivations MATH 2155 – Word problems involving vectors.
Measurement (attached copy of instrument with point distribution)	PHYS 2014 - Quizzes, exams PHYS 2114 – Quizzes, exams MATH 2145 - Common questions assessed on a quiz MATH 2155 - Common questions assessed on a quiz
Evaluation Criteria	70% pass rate on exam
2015-2016 Results	PHYS 2014    14 out of 20 – 70.0% PHYS 2114    4 out of 5 – 80.0% MATH 2145    not collected MATH 2155    not collected
2016-2017 Results	PHYS 2014    25 out of 25 – 100% PHYS 2114    18 out of 20 – 90%  MATH 2145 – 7/7 (100%) of students met competency MATH 2155 – 31/35 (88.57%) of students met competency  MATH 2145 – 26/35 (74.28%) of students met competency MATH 2155 – 4/7 (57.14%) of students met competency
2017-2018 Results	Click or tap here to enter text.
Summary of changes for 2017-2018	Science - No changes at this time Math - Conversation still in progress to be completed before fall course start.
Recommendation for changes for 2018-2019	Click or tap here to enter text.
Timeline for Review	Fall/spring data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Date	Click or tap to enter a date.

Competency # and Description	2. Use logical reasoning to solve problems
Course	PHYS 2014 – Engineering Physics I PHYS 2114 – Engineering Physics II MATH 2145 – Calculus I MATH 2155 – Calculus II
Activity	PHYS 2014 - Quizzes, exams PHYS 2114 – Quizzes, exams MATH 2145 – Word problems involving derivations MATH 2155 – Word problems involving vectors.
Measurement (attached copy of instrument with point distribution)	PHYS 2014 - Quizzes, exams PHYS 2114 – Quizzes, exams MATH 2145 - Common questions assessed on a quiz MATH 2155 - Common questions assessed on a quiz
Evaluation Criteria	70% pass rate on exam
2015-2016 Results	PHYS 2014 14 out of 20 – 70.0% PHYS 2114 4 out of 5 – 80.0% MATH 2145 103 out of 134 – 77% MATH 2155 36 out of 39 – 92%
2016-2017 Results	PHYS 2014 25 out of 25 – 100% PHYS 2114 18 out of 20 – 90%  MATH 2145 – 7/7 (100%) of students met competency MATH 2155 – 31/35 (88.57%) of students met competency  MATH 2145 – 26/35 (74.28%) of students met competency MATH 2155 – 4/7 (57.14%) of students met competency
2017-2018 Results	Click or tap here to enter text.
Summary of changes for 2017-2018	Science - No changes at this time. Math - Conversation still in progress to be completed before fall course start.
Recommendation for changes for 2018-2019	Click or tap here to enter text.
Timeline for Review	Fall/spring data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Date	Click or tap to enter a date.
Competency # and Description	3. Communicate scientific ideas through technical writing
Course	PHYS 2014 – Engineering Physics I PHYS 2114 – Engineering Physics II
Activity	PHYS 2014 – Lab PHYS 2114 - Lab
Measurement (attached copy of instrument with point distribution)	PHYS 2014 – Lab PHYS 2114 - Lab

Evaluation Criteria	Pass rate of 70% on each activity
2015-2016 Results	PHYS 2014 17 out of 20 – 85.0% PHYS 2114 4 out of 5 – 80.0%
2016-2017 Results	PHYS 2014 26 out of 28 – 92.8% PHYS 2114 18 out of 20 – 90%
2017-2018 Results	Click or tap here to enter text.
Summary of changes for 2017-2018	No changes at this time.
Recommendation for changes for 2018-2019	Click or tap here to enter text.
Timeline for Review	Fall/spring data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.
Date	Click or tap to enter a date.
Competency # and Description	4. Recognize connections between physical concepts and engineering applications
Course	PHYS 2014 – Engineering Physics I PHYS 2114 – Engineering Physics II
Activity	PHYS 2014 – Assignments, exam PHYS 2114 – Assignments, exam
Measurement (attached copy of instrument with point distribution)	PHYS 2014 – Assignments, exam PHYS 2114 – Assignments, exam
Evaluation Criteria	Pass rate of 70% on each activity
2015-2016 Results	PHYS 2014 not collected PHYS 2114 4 out of 5 – 80.0%
2016-2017 Results	PHYS 2014 not collected PHYS 2114 18 out of 20 – 90%
2017-2018 Results	Click or tap here to enter text.
Summary of changes for 2017-2018	No changes at this time.
Recommendation for changes for 2018-2019	Click or tap here to enter text.
Timeline for Review	Fall/spring data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.

Summary of Program and Divisional Changes	
2016-2017	<ul style="list-style-type: none"> <li>Switched semester offerings for ENGR 2433 Thermodynamics and ENGR 2113 Statics to better align with mathematics course offerings.</li> <li>Incorporated a multidiscipline aspect to ENGR 2111 Engineering Mechanics I.</li> <li>Began offering PHYS 2014 Engineering Physics I to Enid campus via ITV.</li> <li>Offered a summer section of Phys 2014 (Tonkawa) to support student to degree completion in a timely manner.</li> <li>Placed 3 engineering interns during the year.</li> <li>Began offering Physics research opportunities to students.</li> </ul>
2017-2018	<ul style="list-style-type: none"> <li>Click or tap here to enter text.</li> </ul>

Recommendations for Program Changes	
2016-2017	<ul style="list-style-type: none"> <li>Assess the needs of offering a Basic Circuits course for Engineering students.</li> <li>Assess the feasibility of offering a CAD course for Engineering students.</li> </ul>
2017-2018	<ul style="list-style-type: none"> <li>Click or tap here to enter text.</li> </ul>

## Ag, Science, & Engineering

Program Level Outcomes Timeline						
Program Objectives – Pre-Engineering	Course Map	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1. Use and apply physical data to solve problems	PHYS 2014, PHYS 2114, MATH 2145, MATH 2155	X	X	X	X	X
2. Use logical reasoning to solve problems	PHYS 2014, PHYS 2114, MATH 2145, MATH 2155	X	X	X	X	X
3. Communicate scientific ideas through technical writing	PHYS 2014, PHYS 2114	X	X	X	X	X

4. Recognize connections between physical concepts and engineering applications	CHEM 1414 PHYS 2014, PHYS 2114					
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