

# Program Assessment

2019-2020

## Engineering, Physical Science & Process Technology

Math & Physical Science - Astronomy Option	
Date	Click or tap to enter a date.
Competency # and Description	1. Use and apply physical data to solve problems
Course	ASTR 2513 – Observatory Methods MATH 2145 – Calculus I MATH 2155 – Calculus II
Activity	ASTR 2513 - Quiz MATH 2145 – Word problems involving derivations MATH 2155 – Word problems involving vectors.
Measurement (attached copy of instrument with point distribution)	ASTR 2513 - Quiz MATH 2145 - Common questions assessed on a quiz MATH 2155 - Common questions assessed on a quiz
Evaluation Criteria	ASTR 2513 - 70% pass rate on exam MATH 2145 - Students will earn 70% or better on the quiz MATH 2155 - Students will earn 70% or better on the quiz
2015-2016 Results	ASTR 2513 Not offered MATH 2145 not collected MATH 2155 not collected
2016-2017 Results	ASTR 2513 Not offered  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	ASTR 2513 - (100%) of students met competency MATH 2145 – 14/19 (73.68%) of students met competency MATH 2155 – 6/12 (50%) of students met competency  MATH 2145 – 9/12 (75%) of students met competency MATH 2155 – 6/13 (46.15%) of students met competency
2018-2019 Results	ASTR 2513 – not offered MATH 2145 – 8/16 (50%) of students met competency MATH 2155– 14/16 (87.5%) of students met competency  MATH 2145 – 18/27 (66.67%) of students met competency MATH 2155 – 4/6 (66.67%) of students met competency
2019-2020 Results	
Summary of changes for 2018-2019	ASTR 2513 – no changes at this time Math – no changes at this time

Recommendation for changes for 2019-2020	ASTR 2513 – No changes at this time. Math - Data to be assessed in Fall with faculty.
Recommendation for changes for 2020-2021	
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	ASTR 2513 – Observatory Methods MATH 2145 – Calculus I MATH 2155 – Calculus II
Activity	ASTR 2513 - Quiz MATH 2145 – Word problems involving derivations MATH 2155 – Word problems involving vectors.
Measurement (attached copy of instrument with point distribution)	ASTR 2513 - Quiz MATH 2145 - Common questions assessed on a quiz MATH 2155 - Common questions assessed on a quiz
Evaluation Criteria	70% pass rate on activity
2015-2016 Results	ASTR 2513 Not offered MATH 2145 103 out of 134 – 77% MATH 2155 36 out of 39 – 92%
2016-2017 Results	NA – ASTR 2513 not offered  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	ASTR 2513 - (100%) of students met competency MATH 2145 – 14/19 (73.68%) of students met competency MATH 2155 – 6/12 (50%) of students met competency  MATH 2145 – 9/12 (75%) of students met competency MATH 2155 – 6/13 (46.15%) of students met competency
2018-2019 Results	ASTR 2513 –not offered MATH 2145 – 8/16 (50%) of students met competency MATH 2155 – 14/16 (87.5%) of students met competency  MATH 2145 – 18/27 (66.67%) of students met competency MATH 2155 – 4/6 (66.67%) of students met competency
2019-2020 Results	
Summary of changes for 2018-2019	ASTR 2513 – none at this time Math – no changes at this time

Recommendation for changes for 2019-2020	ASTR - None at this time. Math - Data to be assessed in Fall with faculty.
Recommendation for changes for 2020-2021	
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. Explain evolutionary theory and its supporting principles.
Course	ASTR 1523 – Planetary Science ASTR 1014 – General Astronomy
Activity	ASTR 1523 – Quiz Question ASTR 1014 – Quiz Question
Measurement (attached copy of instrument with point distribution)	ASTR 1523 – Quiz Question ASTR 1014 – Quiz Question
Evaluation Criteria	Pass rate of 70% on each activity
2015-2016 Results	ASTR 1523 15 out of 15 – 100% ASTR 1014 – not collected
2016-2017 Results	ASTR 1523 17 out of 17 – 100% ASTR 1014 – not collected
2017-2018 Results	ASTR 1523 – 15/17 (88%) students met competency ASTR 1014 – not collected
2018-2019 Results	ASTR 1523 – 6 out of 8 – 75% passed ASTR 1014 – 21 out of 32 – 70 % passed.
2019-2020 Results	
Summary of changes for 2018-2019	Changed assessment tool and added class.
Recommendation for changes for 2019-2020	None at this time.
Recommendation for changes for 2020-2021	
Timeline for Review	Fall/spring data will be collected and reviewed in the spring and instructors from all campuses will determine needed adjustments.

<b>Summary of Program and Divisional Changes</b>	
2016-2017	<ul style="list-style-type: none"> <li>Purchased several upgrades for the Mackey Planetarium for better student learning opportunities.</li> </ul>

2017-2018	<ul style="list-style-type: none"> <li>No changes for this year</li> </ul>
2018-2019	<ul style="list-style-type: none"> <li>Changed assessment tool</li> </ul>
2019-2020	<ul style="list-style-type: none"> <li></li> </ul>

Recommendations for Program Changes	
2017-2018	<ul style="list-style-type: none"> <li>Evaluate the number of graduates in the degree program to determine feasibility of retaining the program area.</li> </ul>
2018-2019	<ul style="list-style-type: none"> <li>Two students showed interest in pursuing astronomy at the upper division level.</li> <li>No recommendations at this time.</li> </ul>
2019-2020	<ul style="list-style-type: none"> <li>No change for the next year.</li> </ul>
2020-2021	

## Ag, Science, & Engineering

Program Level Outcomes Timeline						
Program Objectives – Astronomy	Course Map	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1. Use and apply physical data to solve problems	ASTR 2513 MATH 2145 MATH 2155	X	X	X	X	X
2. Use logical reasoning to solve problems	ASTR 2513 MATH 2145 MATH 2155	X	X	X	X	X
3. Explain evolutionary theory and its supporting principles.	ASTR 1523	X	X	X	X	X