

# PROGRAM ASSESSMENT PLAN ~ 2013-14 through 2018-19

*This document only needs to be updated when changes are made.*

<b>UNIT</b>	<b>COLLEGE OF ARTS AND SCIENCES</b>
<b>Department (if applicable)</b>	<b>PHYSICS AND ASTRONOMY</b>
<b>Degree/Program</b>	<b>Bachelor of Arts and Bachelor of Science</b>
<b>Date Prepared</b>	<b>Summer 2014</b>
<b>Date Revised</b>	<b>Updated to New Form (7/8/15);</b>

## PROGRAM MISSION

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The mission of the Physics and Astronomy Department is to engage our community in an impassioned and continued search for intellectual growth in the fields of physics, astronomy, engineering, and geology. The department will accomplish this mission by: offering general education courses to all students; providing a comprehensive and personalized foundation for majors, which will prepare them for a career in their chosen field; performing research and scholarship which broadens the horizons of knowledge and informs our teaching, and; providing public access to the planetarium and observatory and conducting educational programs in physics, astronomy, engineering, and geology for the intellectual enrichment of the citizens of the state of Kansas.

## PROGRAM STUDENT LEARNING OUTCOMES (PSLO)

*If the program has more than 6 PSLO, hit "Tab" in the last cell to add another row. Cells will expand to accommodate text.*

**Upon completion of the program students will be able to:**

<b>PSLO 1</b>	Solve problems requiring a conceptual and analytical knowledge of the major areas of physics.
<b>PSLO 2</b>	Construct and solve mathematical models of physical phenomena.
<b>PSLO 3</b>	Design and conduct experiments consistent with accepted disciplinary practices.
<b>PSLO 4</b>	Recognize how observation, experiment, and theory are complementary components the research process resulting in the expansion of knowledge.
<b>PSLO 5</b>	Communicate scientific information in oral, written, and graphic formats.

## CURRICULUM MAP (Alignment)

List all courses required for program majors and indicate, where applicable, (using the following key) the PSLO with which they are associated.

**T = Taught**

**X = Taught and Assessed**

**A = Assessed**

*If the program has more than 6 PSLO, "Copy and Paste" rows from this table below the existing table, beginning with the row numbering the PSLO.*

<b>Required Courses</b>	<b>PSLO 1</b>	<b>PSLO 2</b>	<b>PSLO 3</b>	<b>PSLO 4</b>	<b>PSLO 5</b>
<b>281</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	
<b>282</b>	<b>T</b>	<b>T</b>	<b>T</b>	<b>T</b>	
<b>320</b>	<b>X</b>	<b>X</b>		<b>T</b>	<b>T</b>
<b>330</b>	<b>X</b>	<b>X</b>		<b>T</b>	<b>T</b>
<b>330</b>	<b>X</b>	<b>X</b>		<b>T</b>	<b>T</b>
<b>334</b>	<b>X</b>	<b>X</b>		<b>X</b>	
<b>334</b>					

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350	X	X		X	
360			X	X	X
365	X	X		X	
366	X	X		X	

## ASSESSMENT MEASURES (Method)

Indicate (mark with an X) the type of assessment used to evaluate each PSLO.

Check as many boxes as apply.

Programs should use at least 2 direct measures for each PSLO.

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	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5
<b>DIRECT</b>					
Portfolio					
Performance Assessment (Art, Music, Theatre, etc.)					
Performance Assessment (Off campus experience – Clinical, Internship, Practicum, etc.)					
Professional Credentialing Exam					
Major Field Test or National Exam	X	X			
Course Embedded Assignment	X	X			
Project Evaluation (e.g. research)			X	X	
Course Grades				X	
Other ~ Capstone Presentation				X	X
<b>INDIRECT</b>					
Surveys ~ Graduation	X	X	X		
Exit Interviews/Focus Groups					
Other (Describe)					

## THRESHOLD OF STUDENT SUCCESS

For each PSLO, list each measure separately and indicate the threshold of student achievement considered acceptable.

(example: 75% of students will receive B or better) - see Assessment Plan Guide for additional instructions.

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PSLO	MEASURE	THRESHOLD
1	Major Field Test	Students will perform at or above national average on MFAT.
	Course Embedded Assignment	Students will be at target on departmental rubric designed to evaluate the designated assignment(s).
	Graduation Survey	
2	Major Field Test	Students will perform at or above national average on MFAT.

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	Course Embedded Assignment	Students will be at target on departmental rubric designed to evaluate the designated assignment(s).
	Graduation Survey	
<b>3</b>	Project Evaluation	Students will be at target on departmental rubric designed to evaluate the project.
	Graduation Survey	
<b>4</b>	Project Evaluation	Students will be at target on departmental rubric designed to evaluate the project.
	Course Grades	
	Capstone Presentation	Students will be at target on departmental rubric designed to evaluate the capstone experience.
<b>5</b>	Capstone Presentation	Students will be at target on departmental rubric designed to evaluate the capstone experience.

## DATA COLLECTION CALENDAR

Indicate how often assessment data are collected for each PSLO.

**S**=every semester

**Y**=every year

**2**=every other year

**3**=every 3 years, (etc.)

**O**-Other (please explain)

*If the program has more than 6 PSLO, hit "Tab" in the last cell to add another row.*

	Frequency of Data Collection
PSLO 1	<b>S</b> (when relevant course is taught)
PSLO 2	<b>S</b> (when relevant course is taught)
PSLO 3	<b>S</b> (when relevant course is taught)
PSLO 4	<b>S</b> (when relevant course is taught)
PSLO 5	<b>S</b> (when appropriate))

## ANALYSIS AND REPORTING CALENDAR

Indicate (mark with an X) the years in which each PSLO was/will be analyzed and reported.

Cycle will repeat after Year 6.

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	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5
<b>Year 1/2013-14</b>	<b>X</b>	<b>X</b>			
<b>Year 2/2014-15</b>			<b>X</b>	<b>X</b>	
<b>Year 3/2015-16</b>					
<b>Year 4/2016-17</b>	<b>X</b>	<b>X</b>			
<b>Year 5/2017-18</b>			<b>X</b>	<b>X</b>	
<b>Year 6/2018-19</b>					

**If field experiences are a significant part of the program, explicitly address how validity and reliability of the evaluation instrument is ensured.**

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## STAKEHOLDER INVOLVEMENT

Describe how stakeholders (faculty, students, alumni, advisory boards, community, etc.) are involved in the development, implementation, periodic review and continuous improvement of the Assessment Plan.

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Faculty will periodically review the SLOs and ensure they are consistent with approved national standards with the goal that students are well-prepared for graduate school or work. Faculty will contribute appropriate assessment results and will participate in department meeting focusing on assessment.

## PROGRAM ASSESSMENT PLAN REVIEW CYCLE

Indicate (mark with an X in column 2) the year(s) in which this Program Assessment Plan will be reviewed and indicate in column 3 (when applicable) when changes are made and addressed in the appropriate year's annual report.

*Cycle repeats after Year 6.*

	Program Assessment Plan Review	Were changes made and addressed in the Annual Report? <u>Yes</u> or <u>No</u> (update when applicable)
Year 1/2013-14	X	Yes
Year 2/2014-15		
Year 3/2015-16		
Year 4/2016-17		
Year 5/2017-18		
Year 6/2018-19		