Program/Department: Biology: for biological science degree core

Submitted by: Denise Foley **Date Submitted:** 10/23/13

1. **Award Program Student Learning Outcomes**

   A. Demonstrate and understanding of the basic theories of biology

   B. Demonstrate a knowledge of and an ability to apply and effectively communicate the scientific method

   C.

   D.

   E.

   F.

   G.

2. **Mapping for Core/Required Courses of an Award Program**

0 **No Contribution:** The curriculum associated with the course Student Learning Outcome (SLO) does not contribute in any way to the students' ability to exhibit the knowledge/skills associated with the Award Program Student Learning Outcome (APSLO).

1 **Minor Contribution:** The contribution of the curriculum associated with the course SLO to the students' ability to exhibit the knowledge/skills associated with the APSLO is not explicit but can be inferred.

2 **Moderate Contribution:** The contribution of the curriculum associated with the course SLO to the students' ability to exhibit the knowledge/skills associated with the APSLO is clear. Data derived from the assessment of the course SLO can be used to measure the achievement of the APSLO.

3 **Major Contribution:** The contribution of the curriculum associated with the course SLO to the students' ability to exhibit the knowledge/skills associated with the APSLO is explicit and substantial. Data derived from the assessment of the course SLO will be used to measure the achievement of the APSLO.

Utilizing the mapping criteria as your guide to linking course outcomes with program outcomes:

Core/Required Course	Course SLO	Award Program Student Learning Outcomes						
		A	B	C	D	E	F	G
Biology 211	1	3	0					
	2	3	3					
	3	0	3					
Biology 212	1	3	0					
	2	3	0					
	3	0	3					
Biology 214	1	3	0					
	2	3	3					
	3	0	3					

Biology 211 – Cellular and Molecular Biology

1. Express a coherent understanding of fundamental biological concepts that include cell structure, energy, cell reproduction, and genetics.
2. Employ the principles of the scientific method to investigate both laboratory and ordinary situations.
3. Conduct laboratory investigations according to given experimental procedure, collect and analyze resulting experimental data, and formulate valid conclusions based on the results.

Biology 212 – Animal Diversity and Ecology

1. Demonstrate a coherent understanding of the relationship between animal diversity, form and function, habitat, and life style.
2. Express a fundamental comprehension of ecological principles by citing examples.
3. Conduct laboratory investigations according to given experimental procedure, collect and analyze resulting experimental data, and formulate valid conclusions based on the results.

Biology 214 - Plant Diversity and Evolution

1. Demonstrate a coherent (cohesive) understanding of the relationship between plant diversity, form and function, habitat, and life style.
2. Express (Demonstrate) a fundamental comprehension (coherent understanding) of the process of evolution and its relationship to biodiversity.
3. Conduct laboratory investigations according to given experimental procedure, collect and analyze resulting experimental data, and formulate valid conclusions based on the results.

Program/Department: Associate in Arts in Economics (11943)

Submitted by: Alexander G Taber **Date Submitted:** Nov 4, 2013

1. **Award Program Student Learning Outcomes**

A. Identify and explain the fundamental economic problem of allocating scarce resources and the role of positive economics in explaining choices.

B. Communicate using basic economic terminology, interpret relevant economic data, and follow and construct fundamental economic arguments.

C.

D.

E.

F.

G.

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Utilizing the mapping criteria as your guide to linking course outcomes with program outcomes:

Core/Required Course	Course SLO	Award Program Student Learning Outcomes						
		A	B	C	D	E	F	G
Econ 120	1	3	3					
	2	3	3					
Econ 121	1	3	3					
	2	3	3					

Program/Department: **Certificate of Achievement in Digital Media Arts: Graphic Design (21670)**
Submitted by: **Robbie Miller** **Date Submitted:** **11/15/13**

1. **Award Program Student Learning Outcomes**

A. Demonstrate the use of a variety of digital media tools and techniques to create graphic design images

B. Demonstrate the ability to create graphic design images using visual elements and principles of design.

C.

D.

E.

F.

G.

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Utilizing the mapping criteria as your guide to linking course outcomes with program outcomes:

Core/Required Course	Course SLO	Award Program Student Learning Outcomes						
		A	B	C	D	E	F	G
ART 100	# 1	2	2					
	2	1	1					
	3	1	1					
ART 100H	1	2	2					
	2	1	1					
ART 110	1	3	2					
	2	3	2					
	3	3	2					
	4	3	2					
Art 122	1	3	3					
	2	2	3					
Art 129	1	3	2					
	2	3	2					
ART 130	1	3	3					
	2	3	2					
	3	2	2					
Art 195	1	3	3					
	2	2	2					

Program/Department: Associate in Science for Transfer in Physics

Submitted by: Craig Rutan **Date Submitted:** 10/17/13

1. **Award Program Student Learning Outcomes**

   A. Apply appropriate physical laws and mathematical techniques to analyze various physical situations.
   B. Perform various scientific experiments and analyze data to check agreement with theoretical predictions.
   C.

   D.

   E.

   F.

   G.

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Utilizing the mapping criteria as your guide to linking course outcomes with program outcomes:

Core/Required Course	Course SLO	Award Program Student Learning Outcomes						
		A	B	C	D	E	F	G
Physics 250A	1	3	1					
Physics 250A	2	1	3					
Physics 250B	1	3	1					
Physics 250B	2	1	3					
Physics 250C	1	3	1					
Physics 250C	2	1	3					
Mathematics 180/180H	1	2	0					
Mathematics 180/180H	2	2	0					
Mathematics 185	1	2	0					
Mathematics 185	2	1	0					
Mathematics 280	1	1	0					
Mathematics 280	2	1	0					
Mathematics 280	3	2	0					