SEMINOLE STATE COLLEGE

ASSOCIATE IN SCIENCE IN MATHEMATICS (211)

2013-14 Degree Program Evaluation

The information required to complete this annual evaluation process mirrors the information required by OSRHE Policy on Academic Program Review. Specifically, it covers the following Vitality of the Program items: (1) Program Objectives and Goals, (2) Quality Indicators, (3) Minimum Productivity Indicators, and (4) Other Quantitative Measures (for additional information see OSRHE Policy 3.7.5.B.1-4).

1. Program Objectives and Goals

Associate in Science in Mathematics Degree Program Outcomes

Outcomes for Transfer Degree Programs

Outcome 1: Demonstrate successful articulation of Seminole State College transfer degree programs to state and professional institutions of higher learning granting professional and baccalaureate degrees in Oklahoma.

Outcome 2: Demonstrate successful academic achievement by Seminole State College transfer degree students at primary receiving state baccalaureate institutions of higher learning in Oklahoma. Successful academic achievement is defined as the maintenance of satisfactory academic progress toward degree completion as determined by the receiving institution.

Outcomes Specific to Associate in Science in Mathematics

Outcome 3: Demonstrate problem-solving skills foundational to higher order mathematics. Higher order mathematics shall be defined as commonly accepted concepts in algebra, trigonometry, analytic geometry, and calculus.

Outcome 4: Demonstrate preparation for continued pursuit of mathematics education leading to a baccalaureate degree in mathematics.

2. Quality Indicators

Combined Course Embedded Assessment Results For Fall 2013 and Spring 2014 for Major Field Courses in Degree Program

General Education Outcomes	Pre-Test % Correct	Post-Test % Correct	Difference
General Education Outcome 1	16%	65%	49%
General Education Outcome 2	20%	64%	44%
General Education Outcome 3	18%	63%	45%
General Education Outcome 4			
Specific Outcomes for AS Mathematics	**Pre-Test % Correct**	**Post-Test % Correct**	**Difference**
Degree Program Outcome 3	17%	63%	46%
Degree Program Outcome 4	17%	63%	46%

Other Data Indicating Quality Relevant to Degree Program Major Field

Student Feedback on Instruction:

The average response scores from the Student Feedback on Instruction for the Math/Science/Engineering Division ranged from 4.29 to 4.76 for the rated scale questions. Therefore, all of the averaged responses fell between "usually applies" and "almost always applies" with those responses describing desired attributes or behaviors. The average MSE response score for all the rated scale questions was 4.58.

Graduate Exit Survey:

Overall, students rated their academic experience favorably with 80.9% of the students rating "quality of teaching in your major field of study" as excellent or above average. More than 80% of students rated "faculty concern for student well-being" and "faculty commitment to student success and learning" as excellent or above average.

Collegiate Assessment of Academic Proficiency (CAAP) Test:

The Science portion of the CAAP test was 0.2 of a point below the national mean. However, the previous year score was 1.4 points below the national mean. Therefore, the Science gained from the previous year.

The Mathematics portion of the CAAP test was 0.3 of a point above the national mean for the current year.

Other Quality Indicators:

3. Minimum Productivity Indicators

Productivity Indicators

Academic Year	Semester	Declared Majors	Graduates
2013-14	Summer 2013	2	0
	Fall 2013	5	2
	Spring 2014	2	0

Does the degree program meet the minimum OSRHE standards for productivity this year?

Majors Enrolled (25 per year): No

Degree Conferred (5 per year): No

Comments/Analysis:

The Mathematics degree continues to be a low demand and a low productivity degree.

Low Productivity Justification:
The Mathematics degree is a low demand and a low productivity degree statewide as verified by Oklahoma State Regents for Higher Education STEM Degrees by Field by Institution data (http://www.okhighered.org/oeis/).
Other institutions have similar programs to the Mathematics Degree Program at Seminole State College. Although the Mathematics Degree is a low demand program and the rates of declared majors and graduation are below OSRHE productivity levels, our function at Seminole State College is to provide local access to those students in our five county service area wishing to pursue the Mathematics Degree. Therefore, providing this program for the service area warrants duplication.

4. Other Quantitative Measures

Number of Sections Taught and Enrollment for Each Course in Major Field of Degree Program

Prefix	Number	Major Field Course Title	Number of Sections	Total Students	Ave. Class Size	Total Credit Hours Generated
CS	2013	C+	1	8	8	24
ENGR	1113	Introduction to Engineering	1	13	13	39
MATH	1613	Plane Trigonometry	3	35	35	105
MATH	2215	Calculus and Analytic Geometry I	1	15	15	75
MATH	2424	Calculus and Analytic Geometry II	1	6	6	24
MATH	2434	Calculus and Analytic Geometry III	1	10	10	40

Credit Hours Generated in Major Field Courses of Degree Program By Level (from table above)

Academic Year	1000 Level Credit Hours Generated	2000 Level Credit Hours Generated
2013-14	144	163

Note: Credit Hours Generated columns represent the student credit hours generated by all the major field courses of the degree program for the given academic year. The hours do not represent the number of student credit hours generated only by those students declaring this major.

Direct Instructional Costs

Academic Year	Instructional Costs*	Costs Shown By Division or Program?
2013-14	$355,398	Mathematics Division

*When cost data are not available by degree program, use total division budget for instructional costs for each degree program.

Credit Hours Generated by Courses in Major Field of Degree Program That Are Part of General Education Requirements in Other Degree Programs

Major Field Course Information			
Prefix	**Number**	**Title**	**Credit Hours Generated**
MATH	1413	Mathematics in Society	174
MATH	1513	College Algebra	1710

Faculty Teaching Major Field Courses in Degree Program

Name	Teaching Area	Highest Degree	Institution
Bryant, Melissa	Mathematics	M.Ed.	East Central University
Goeller, Linda	Mathematics	Ph.D.	Oklahoma State University
Helseth, Dave	Science	M.S.	Oklahoma State University
Mills, Jamie	Mathematics	M.Ed.	East Central University
Tollett, Jarrod	Mathematics / Science	M.Ed.	East Central University
Troglin, Annette	Mathematics	M.Ed.	East Central University
Current Full-Time Faculty From Other Divisions Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)			
Schnell, Michael	Computer Science	M.S.	Florida Institute of Technology
Current Adjunct Faculty Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)			
Knox, Vickie	Mathematics	B.S.	East Central University
Qualls, Travis	Mathematics	M.Ed.	East Central University

5. Recommendations and Other Relevant Items: Describe recommendations, new developments or initiatives pertaining to degree program.

Expand the program by 5 students per year.