

**SEMINOLE STATE COLLEGE
ASSOCIATE IN SCIENCE IN PRE-ENGINEERING (214)**

Degree Program Evaluation for 2015-16

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 Pre-Engineering 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 Pre-Engineering

- Outcome 3: Define and explain fundamental concepts, principles, and theories of engineering.
- Outcome 4: Gather scientific information through experiments and interpret and express the results of experiments.
- Outcome 5: Demonstrate problem-solving skills foundational to understanding of engineering concepts.
- Outcome 6: Demonstrate preparation for continued pursuit of engineering education leading to a baccalaureate degree in an engineering area.

2. Quality Indicators

Combined Course Embedded Assessment Results For Fall 2015 and Spring 2016 for Major Field Courses in Degree Program

General Education Outcomes	Pre-Test % Correct	Post-Test % Correct	Difference
General Education Outcome 1	11%	75%	64%
General Education Outcome 2	8%	62%	54%
General Education Outcome 3	11%	75%	64%
General Education Outcome 4	8%	66%	58%
Specific Outcomes for AS Pre-Engineering	Pre-Test % Correct	Post-Test % Correct	Difference
Degree Program Outcome 3	9%	68%	59%
Degree Program Outcome 4	10%	72%	62%
Degree Program Outcome 5	7%	61%	54%
Degree Program Outcome 6	9%	64%	55%

Other Data Indicating Quality Relevant to Degree Program Major Field

Degree Program Enrollment by Ethnicity

Academic Year	Ethnicity	Summer 2015		Fall 2015		Spring 2016	
2015-16	Total Students	7	100%	39	100%	36	100%
	Black	0	0%	4	10%	4	11%
	Indian	1	14%	7	18%	7	19%
	Asian	0	0%	0	0%	0	0%
	Hispanic	0	0%	3	8%	3	8%
	Hawaiian/Pacific Islander	0	0%	0	0%	0	0%
	White	6	86%	24	61%	21	59%
	Undeclared	0	10%	1	3%	1	3%

Degree Program Enrollment by Gender

Academic Year	Gender	Summer 2015	Fall 2015	Spring 2016
2015-16	Male	7	35	33
	Female	0	4	3

Student Feedback on Instruction:

The average response scores from the Student Feedback on Instruction ranged from 4.50 to 4.78 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.

Graduate Exit Survey:

Overall, students rated their academic experience favorably with 84% of the students rating “quality of teaching in your major field of study” as excellent or above average. More than 82% 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 0.1 of a point below the national mean.

The Mathematics portion of the CAAP test was 0.5 of a point below the national mean for the current year.

Community College Survey of Student Engagement:

No longer administered.

Faces of the Future Survey: no longer used

Other Quality Indicators: none

3. Minimum Productivity Indicators

Productivity Indicators

Academic Year	Semester	Declared Majors	Graduates
2015-16	Summer 2015	7	0
	Fall 2015	39	0
	Spring 2016	36	1

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

Majors Enrolled (25 per year): Yes

Degree Conferred (5 per year): No

Comments/Analysis: With the high enrollment, we expect graduates to increase next year.

Low Productivity Justification:

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
CHEM	1114	Introduction to Chemistry	3	75	25	300
CHEM	1315	General Chemistry I	3	76	25	380
CHEM	1515	General Chemistry II	1	7	7	35
ENGR	1113	Introduction to Engineering	2	23	12	69
MATH	1513	College Algebra	30	494	16	1482
MATH	1613	Plane Trigonometry	2	31	16	93
CS	2013	Programming in C++	1	19	12	57
MATH	2215	Calculus and Analytic Geometry I	2	28	14	84
MATH	2424	Calculus and Analytic Geometry II	1	8	8	24
MATH	2424	Calculus and Analytic Geometry III (not offered this period)				
MATH	2533	Differential Equations (not offered this period)				
PHYS	2114	General Physics I	1	18	18	72
PHYS	2211	Calculus Based General Physics I	2	8	4	8
PHYS	2224	General Physics II	1	15	15	60
PHYS	2231	Calculus Based General Physics II	1	6	6	6

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
2015-16	2359	311

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?
2015-16	\$459,621.21	Science 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
NA	NA	NA	

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
Gomez, Lynnette	Mathematics	B.S.	Oklahoma Baptist University
Holtz, Chris	Science	M.S.	University of California, San Diego
Tollett, Jarrod	Mathematics / Science	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)			
Chun Fu Cheng	Information Systems	MBA Management Completion 5/2014	Oklahoma City University
Current Adjunct Faculty Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)			
Carpenter, Emily	Mathematics	M.S.	Oklahoma State University
Coursey, Danita	Mathematics	B.S.	University of Science and Arts of Oklahoma
Helseth, Dave	Science	M.S.	Oklahoma State University
Knox, Victoria	Mathematics	B.S.	East Central University
Mills, Jamie	Mathematics	M.Ed.	East Central University
Qualls, Travis	Mathematics	M.Ed.	East Central University
Troglin, Annette	Mathematics	M.Ed.	East Central University

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

Expand program by 5 students.

