SEMINOLE STATE COLLEGE

ASSOCIATE IN SCIENCE IN BIOLOGY (210)

Degree Program Evaluation for 2018-19

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 Biology 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 Biology

Outcome 3: Demonstrate a grasp of biological and related concepts foundational to advanced courses in Biology. Advanced courses shall be defined as courses commonly considered Junior and Senior level at baccalaureate degree granting institutions.

Outcome 4: Demonstrate preparation for continued pursuit of Biology education leading to a baccalaureate or professional degree in a branch of Biology.

2. Quality Indicators

Combined Course Embedded Assessment Results for 2018-19 for Major Field Courses in Degree Program

General Education Outcomes	Pre-Test % Correct	Post-Test % Correct	Difference
General Education Outcome 1	15%	45%	30%
General Education Outcome 2	24%	48%	24%
General Education Outcome 3	15%	33%	19%
General Education Outcome 4	22%	49%	27%
Specific Outcomes for AS Biology	**Pre-Test % Correct**	**Post-Test % Correct**	**Difference**
Degree Program Outcome 3	21%	48%	27%
Degree Program Outcome 4	19%	35%	15%

Other Data Indicating Quality Relevant to Degree Program Major Field

Degree Program Enrollment by Ethnicity

Academic Year	Ethnicity	Summer 2018		Fall 2018		Spring 2019	
2018-19	Total Students	23	100%	36	100%	34	100%
[redacted]	Black	0	0%	2	6%	4	12%
	Indian	7	31%	11	31%	10	29%
	Asian	1	4%	1	3%	1	3%
	Hispanic	0	0%	1	3%	2	6%
	Hawaiian/Pacific Islander	0	0%	0	0%	0	0%
	White	15	65%	17	47%	16	47%
	Undeclared	0	0%	4	11%	1	3%

Degree Program Enrollment by Gender

Academic Year	Gender	Summer 2018	Fall 2018	Spring 2019
2018-19	Male	8	13	9
[redacted]	Female	15	23	25

Student Feedback on Instruction:
The average response scores from the Student Feedback on Instruction for the Math/Science/Engineering Division ranged from 4.35 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 4.55.

Graduate Exit Survey:
Overall, students rated their academic experience favorably with 78% of the students rating "quality of teaching in your major field of study" as excellent or above average. More than 79% 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 0.8 of a point below the national mean.
The Mathematics portion of the CAAP test was 0.4 of a point above the national mean for the current year.

Faculty Survey on Student Engagement:

3. Minimum Productivity Indicators

Productivity Indicators

Academic Year	Semester	Declared Majors	Graduates
2018-19	Summer 2018	23	3
	Fall 2018	36	0
	Spring 2019	34	2

Does the degree program meet the minimum OSRHE standards for productivity this year?
Majors Enrolled (25 per year): Yes
Degree Conferred (5 per year): Yes

Comments/Analysis: Seminole State College's Mission Statement states, "SSC empowers people for academic success, personal development, and lifelong learning." The Biology – Associate in Science Degree Program is clearly connected to the college's mission. All of the courses in the Biology program are part of a student's General Education requirement. One life science course is required for all non-science majors. Several life science courses are required for students that pursue education in a medical or science-related field. These students may choose to complete their training at SSC through the MLT, Nursing or PTA programs. Most A.S. in Biology are transfer degrees to a four-year institution which will provide students an academic foundation for their major field of study.

Low Productivity Justification: We are reviewing all course enrollees and seeking out Health Science, Non-Degree Seeking and Liberal Studies majors who are really Biology majors. The new campus-wide advising model will aim to get all students to better identify majors so they will not stay listed as above majors for their two years at SSC. A new advising model of placing students with an advisor who teaches in the students chosen major will help identify students who are biology majors earlier. This will allow them to be correctly advised from the beginning and prevent the loss of biology majors to liberal studies as the fall back degree if the student cannot complete the biology degree on time.

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
BIOL	1214	Principles of Biology	10	254	25	1016
BIOL	1224	General Botany	0	0	0	0
BIOL	1234	General Zoology	2	29	15	116
CHEM	1315	General Chemistry I	3	84	28	336
PHYS	2114	General Physics I	1	24	24	96

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
2018-19	1468	96

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?
2018-19	$463,449.00	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 That Are Part of General Education Requirements in Other Degree Programs

Major Field Course Information			
Prefix	**Number**	**Title**	**Credit Hours Generated**
BIOL	1214	Principles of Biology	1016
BIOL	1224	General Botany	0
BIOL	1234	General Zoology	116
CHEM	1315	General Chemistry I	336

Faculty Teaching Major Field Courses in Degree Program

Name	Teaching Area	Highest Degree	Institution
Cook, Jason	Science	M.Ed.	University of Oklahoma
Senaratne, Nilmini	Chemistry	Ph.D.	University of Kansas
Hernandez, T	Science	M.Ed.	Grand Canyon University, Phoenix
Jobe, Noble	Science	Ph.D.	Oklahoma State University
Tollett, Jarrod	Mathematics / Science	M.Ed.	East Central University
Walker, Susan	Science	M.S.	Oklahoma State University
Current Full-Time Faculty From Other Divisions Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)			
Current Adjunct Faculty Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)			
Creekmore, Sindi	Science		
Helseth, Dave	Science	M.S.	Oklahoma State University
Miles, Deanna	Science	M.D.	University of Oklahoma

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

Maintain program at current level.
Offer courses such as a Techniques in Biology, Field Biology and/or Biology Seminar. Offer a field trip course designed for students to gain experience and knowledge about the career opportunities in the field of Biology.