

**SEMINOLE STATE COLLEGE
ASSOCIATE IN SCIENCE IN BIOLOGY (210)**

Degree Program Evaluation for 2019-20

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 2019-20 for Major Field Courses in Degree Program

General Education Outcomes	Pre-Test % Correct	Post-Test % Correct	Difference
General Education Outcome 1	17%	57%	41%
General Education Outcome 2	29%	53%	23%
General Education Outcome 3	20%	46%	26%
General Education Outcome 4	26%	52%	26%
Specific Outcomes for AS Biology	Pre-Test % Correct	Post-Test % Correct	Difference
Degree Program Outcome 3	27%	52%	25%
Degree Program Outcome 4	24%	32%	8%

Other Data Indicating Quality Relevant to Degree Program Major Field

Degree Program Enrollment by Ethnicity

Academic Year	Ethnicity	Summer 2019		Fall 2019		Spring 2020	
2019-20	Total Students	15	100%	38	100%	31	100%
	Black	1	7%	2	5%	3	10%
	Indian	4	26%	12	31%	7	22%
	Asian	1	7%	1	3%	0	0%
	Hispanic	0	0%	0	0%	0	0%
	Hawaiian/Pacific Islander	0	0%	0	0%	0	0%
	White	8	53%	22	58%	20	65%
	Undeclared	1	7%	1	3%	1	3%

Degree Program Enrollment by Gender

Academic Year	Gender	Summer 2019	Fall 2019	Spring 2020
2019-20	Male	3	11	12
	Female	12	27	19

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
2019-20	Summer 2019	15	1
	Fall 2019	38	3
	Spring 2020	31	4

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 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: None.

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	205	21	820
BIOL	1224	General Botany	0	0	0	0
BIOL	1234	General Zoology	2	32	16	128
CHEM	1315	General Chemistry I	3	55	18	275
PHYS	2114	General Physics I	1	30	30	120

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
2019-20	1,223	120

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?
2019-20	\$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	820
BIOL	1224	General Botany	0
BIOL	1234	General Zoology	128
CHEM	1315	General Chemistry I	275

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 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.