

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

**Degree Program Evaluation for 2020-21**

*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 2020-21 for Major Field Courses in Degree Program

General Education Outcomes	Pre-Test % Correct	Post-Test % Correct	Difference
General Education Outcome 1	49%	87%	38%
General Education Outcome 2	42%	75%	33%
General Education Outcome 3	38%	77%	39%
General Education Outcome 4	45%	80%	35%
Specific Outcomes for AS Biology	Pre-Test % Correct	Post-Test % Correct	Difference
Degree Program Outcome 3	42%	76%	33%
Degree Program Outcome 4	48%	76%	28%

### Other Data Indicating Quality Relevant to Degree Program Major Field

#### Degree Program Enrollment by Ethnicity

Academic Year	Ethnicity	Summer 2020		Fall 2020		Spring 2021	
2020-21	Total Students	23	100%	40	100%	28	100%
	Black	3	13%	1	3%	1	4%
	Indian	6	26%	9	22%	5	18%
	Asian	0	0%	1	3%	0	0%
	Hispanic	0	0%	2	5%	3	11%
	Hawaiian/Pacific Islander	1	4%	0	0%	0	0%
	White	13	57%	25	62%	19	67%
	Undeclared	0	0%	2	5%	0	0%

#### Degree Program Enrollment by Gender

Academic Year	Gender	Summer 2020	Fall 2020	Spring 2021
2020-21	Male	7	13	10
	Female	16	27	18

#### Student Feedback on Instruction:

The fact that the College's average on the rated-scale questions was 4.6 on a 5.0 scale is taken as an indicator of overall positive feedback from students on classroom instruction. These averages fall close to the midpoint between the answers "usually applies" and "almost always applies" and were offered as positive affirmations to fifteen different statements regarding course effectiveness and classroom instruction. The average for questions pertaining only to online courses was 4.6 and is taken as evidence that student satisfaction in online courses very closely mirrors that in classes overall.

#### Graduate Exit Survey:

In the statistics related to the overall satisfaction with SSC, 75% of students indicated satisfaction with the SSC education experience by giving a rating of excellent or above average. The students indicated they would again choose SSC if starting over at 79%. In general, the responses to the survey increased this year with good insight given for areas to improve. Students listed professors consistently as one of the greatest strengths at SSC. Students cited class size, staff, and affordability as other strengths.

#### ETS Proficiency Profile Test:

Mathematics portion of the ETS test was 0.8 points above the national mean for the current year. The

Critical Thinking portion of the ETS test was 1.1 points above the national mean for the current year. The Natural Sciences portion of the ETS test was 1.8 above the national mean for the current year.

The next Faculty Survey on Student Engagement will be conducted in January 2022.

Other Quality Indicators: none

### 3. Minimum Productivity Indicators

#### Productivity Indicators

Academic Year	Semester	Declared Majors	Graduates
2020-21	Summer 2020	23	0
	Fall 2020	40	5
	Spring 2021	28	5

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: 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	11	273	25	1092
BIOL	1224	General Botany	1	13	13	52
BIOL	1234	General Zoology	2	31	16	124
CHEM	1315	General Chemistry I	5	105	21	525
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
2020-21	1,793	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?
2020-21	\$906,012.00	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	1092
BIOL	1224	General Botany	52
BIOL	1234	General Zoology	124
CHEM	1315	General Chemistry I	525

##### Faculty Teaching Major Field Courses in Degree Program

Name	Teaching Area	Highest Degree	Institution
Miles, Deanna	Science	M.D.	University of Oklahoma
Senaratne, Nilmini	Chemistry	Ph.D.	University of Kansas

Jobe, Noble	Science	Ph.D.	Oklahoma State University
Tollett, Jarrod	Mathematics / Science	M.Ed.	East Central University
Streight, Ricky	Mathematics	Ph D.	University of Oklahoma
Rich, Wendy	Agriculture Science	M.S.	Oklahoma State University
<b>Current Full-Time Faculty From Other Divisions Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)</b>			
<b>Current Adjunct Faculty Teaching Major Courses in Degree Program (Instructors with ** beside their name teach only zero-level classes)</b>			
Cook, Jason	Science	M.Ed.	University of Oklahoma
Biddy, Brent	Science	B.S.	East Central University
Stanley, Kara	Science	M.S.	West Texas A&M University

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

Maintain program at current level.  
 Offer online courses for Microbiology, Anatomy and Physiology to continue to diversify scheduling opportunities for students. Offer a field trip course designed for students to gain experience and knowledge about the career opportunities in the field of Biology.