Fourth Semester:	
BIOS 2550 Introduction to Bioinformatics	
BIOS 2800 Biotechnology Science Seminar	
COMM 1050**Fundamentals of Public Speaking	
Choose course(s) from the Social and Behavioral Science Electives list	
(1st 8 weeks):	
BIOS 2400Tissue Culture	
(2nd 8 weeks):	
BIOS 2700 Internship	
·	
	Program Total: 66

## Social and Behavioral Sciences Electives: minimum 3 credits

ANTH 1160; ECON 1150, 2500, 2600; GEOG 1500, 1600, 2500; HIST 1150, 1250, 2150, 2250; POLS 1300, 2500; PSYC 1500; SOCY 1150

## **Biotechnology Science Certificate (3751)**

This certificate is designed primarily for students with a baccalaureate or associate degree, and a basic science background including one year of college chemistry, cell biology, and general microbiology.

## Admission to the Biotechnology Science program is required.

**NOTE:** BIOS 1500 has prerequisites that include BIOL 1510 Principles of Biology I or an equivalent cellular biology course, and CHEM 1500 General Chemistry I or an equivalent chemistry course. BIOS 2100 has prerequisites that include BIOL 2700 Microbiology or an equivalent general microbiology course. Students may need to take additional courses if they have not already taken the prerequisite courses or their equivalent.

BIOS 1050Introduction to Biotechnology Science
BIOS 1200Biotechnology Science Lab Skills
BIOS 1500Introduction to Biochemistry
BIOS 1600
BIOS 2100Applied Microbiology
BIOS 2400Tissue Culture
BIOS 2500
BIOS 2550 Introduction to Bioinformatics
BIOS 2600 Bioscience Manufacturing Processes
BIOS 2700
BIOS 2800 Biotechnology Science Seminar
Certificate Total: 35

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit  $\frac{|kn.|}{akelandcc.edu/go/qe/?q=3751}$ .

<sup>\*</sup>English course selection is based on placement test results (ENGL 1111 is 4 credits, only 3 credits apply to the degree). Students who place into ENGL 1111 should consult with the program chair.

<sup>\*\*</sup>Students may substitute COMM 1000. This 3 credit hour course may be required for students transferring to a four-year college.