

### College of Arts and Sciences

# Biological Laboratory Science



Bachelor of Science

A Bachelor of Science in Biological Laboratory Science will prepare students to work in a laboratory setting as a Research Associate or Technician. Such positions can be found in academic, industrial and government settings, which includes biotechnology manufacturing companies that produce genetically engineered products like new vaccines, drugs or modified plants and animals for human consumption, university and medical research laboratories, government regulatory agencies and forensics laboratories.

This program can serve as a bachelor's completion program for students who have earned an Associate degree in Biotechnology and additionally provides preparation for admission to post-baccalaureate degree programs in medicine, dentistry, veterinary science, occupational therapy, physical therapy and pharmacy.

# **Program Outcomes**

Laboratory components of the program course sequence are designed for students to learn techniques and methodologies used in the disciplines of cell and molecular biology, genetics, DNA bioinformatics, microbiology and forensic science. Students conduct activities that involve experimental design, data analysis, and the use of advanced technologies to investigate research questions. Program training culminates with student completion of a capstone research project as well as a separate external Internship in a laboratory setting.

# Why DU?

This program is part of Davenport's continuing effort to identify and respond to strong needs in the marketplace. The specific focus on preparing students for a career in a biological research laboratory setting is a key differentiator from other Bachelor Degrees in Biology typically offered at institutions throughout the State of Michigan.

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### **Davenport University**

- We are a private, nonprofit university preparing students for a career.
- We award \$15 million in scholarships each year.
- We keep a low student-to-faculty ratio. Average class size is 15.
- We offer classes online and at campuses across Michigan.
- We specialize in flexible online or on-campus classes days and evenings.
- We are nationally respected for our curriculum and faculty.

## Davenport University College of Arts and Sciences

Our Excellence System builds a strong foundation for your future. Our focus is on nine critical-thinking skills that prepare you to succeed in any field. No matter what degree you choose, it all starts here and grows, with a knowledge base in math, humanities, English, social sciences and languages.

Learn more from admissions representatives at 800-686-1600 or davenport.edu





# **Recommended Course Sequence**

### Year 1

Fall ACES100 BIOL110 BIOL110L	Achieving Career and Academic Success Foundations of Cell Biology Foundations of Cell Biology Lab	<b>17 cr</b> 3 cr 4 cr
CHEM160 CHEM160L ENGL109 MATH125	General Chemistry I General Chemistry I Lab Composition Intermediate Algebra	4 cr 3 cr 3 cr
Winter BIOL111 BIOL111L	Organisms and Populations Organisms and Populations Lab	<b>17 cr</b> 4 cr
CHEM161 CHEM161L	General Chemistry II General Chemistry II Lab	4 cr
ENGL110 MATH135 SOSC201	Advanced Composition College Algebra Diversity in Society	3 cr 3 cr 3 cr

### Year 2

Fall BIOL209 BIOL336 CHEM250 CHEM250L COMM120	Techniques in Laboratory Science Genetics Organic Chemistry I Organic Chemistry I Lab (optional)* Presentation Techniques	14 cr 4 cr 4 cr 3 cr 1 cr 3 cr
Winter BIOL211	Microbiology	<b>16 cr</b> 4 cr
BIOL211L CHEM255 CHEM255L SOSC301 STAT219	Microbiology Lab Organic Chemistry II Organic Chemistry II Lab (optional)* Globalization and World Diversity Introduction to Biostatistics	3 cr 1 cr 3 cr 3 cr
Open Elective	3 cr	

### Year 3

Fall BIOL354 BIOL354L	Cell and Molecular Biology Cell and Molecular Biology Lab	<b>14 c</b> ı 4 cr
BITS211 ENGL311 PHYS210 PHYS210L	Microcomputer Applications: Spreadsheet Professional Writing Fundamentals of Physics I Fundamentals of Physics I Lab	3 cr 3 cr 4 cr
Winter	•	14 cı
BITS212	Microcomputer Applications: Databases	3 cr
CHEM310	Biochemistry	4 cr
CHEM310L	Biochemistry Lab	
PHYS220	Fundamentals of Physics II	4 cr
PHYS220L	Fundamentals of Physics II lab	
Open Elective*		3 cr

#### Year 4

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Fall BIOL430 BIOL430L	Advanced Microbiology Advanced Microbiology Lab	<b>14 c</b> 4 cr
BIOL458 BIOL458L	Forensic Science Forensic Science Lab	4 cr
BIOL4XX BIOL382	Capstone Research Project Science Ethics	3cr 3cr
Winter		14 c
BIOL486 BIOL475	Introduction to Bioinformatics Advanced Forensic Science	3 cr
BIOL475L	Advanced Forensic Science Lab	4 cr
BIOL490	Biological Laboratory Internship	4 cr
Open Elective	*	3 cr

\*Recommended for all students, especially if using this program as pre-professional. If the degree intent is pre-professional, you may want to consider taking MATH 215, Calculus, BIOL221/221L and BIOL222/222L Anatomy and Physiology I and II, upon consultation with applicant schools.

This information is subject to change and cannot be considered an agreement or contract between individual students and Davenport University. Refer to the current University catalog to confirm degree requirements.







