

Academic Transfer

Associate of Science

Lincoln Campus



What is Biotechnology?

Biotechnology is the use of biological materials such as cells, DNA, or proteins to solve problems and make life better. Biotechnology . . .

- HEALS through the development of medicines, vaccines, rapid diagnostic tests, and personalized medicine.
- FUELS the economy through the development of renewable biofuels and use of microbes and fermentation in manufacturing.
- FEEDS the growing population by making crops resistant to pests and diseases, increasing yields, decreasing spoilage, and making food more nutritious.

Students gain skills in...

- DNA manipulation and analysis
- Expression and purification of proteins
- Cell culture
- Enzyme and antibody assays
- Genomics and bioinformatics
- Biomanufacturing
- Communication
- Teamwork

Students interested in the Biotechnology concentration may have...

- A love of science
- Attention to detail
- Problem-solving skills

2019-2020

Biotechnology Concentration



Start a career

After completion of A.S. degree, students will be capable of working efficiently in a regulated environment to fulfill a need for middle skills jobs in the Nebraska economy.

Transfer

Students will be able to pursue further education and earn a bachelor's or master's degree in areas such as applied science, biology, biochemistry, biotechnology, biomedical sciences, or microbiology.



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A0700b-BIOT (09/19)

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The Biotechnology concentration provides students with a background in biology and chemistry, and a working knowledge of biotechnology is gained by focusing on laboratory protocols in a regulated environment. Coursework leads to an Associate of Science degree (A.S.), which prepares students for careers as technical assistants in biomedical, pharmaceutical, academic, and bioengineering laboratories. Core coursework prepares students to further their education at local four-year institutions leading to more advanced degrees. Students gain industry experience through a practicum.

**2019-2020 — ACADEMIC TRANSFER - BIOTECHNOLOGY CONCENTRATION
Lincoln Campus - Associate of Science Degree**

		***Delivery
A. Written Communication		6.0
ENGL1010	English Composition I and	3.0..... F2F,OL,HY
ENGL1020	English Composition II or	3.0..... HY
ENGL2560	Technical Writing	3.0F2F,OL
B. Speech Communication		3.0
Take one Speech Communication course from the Academic Transfer Requirements		
SPCH2810	Business & Professional Communication (recommended)	3.0..... F2F,OL,HY
C. Mathematics/Logic		6.0
MATH1150	College Algebra	3.0.....F2F,OL
MATH2170	Applied Statistics	3.0.....F2F,OL
D. Natural Science/Biotechnology		33.0
BIOS1400	Biology I w/Lab	4.0..... F2F
CHEM1090	General Chemistry I w/Lab	4.0..... F2F,HY
CHEM1100	General Chemistry II w/Lab	4.0..... F2F
CHEM2550	Biological Organic Chemistry	3.0..... F2F
BIOT1400	Introduction to Biotechnology I w/Lab	4.0..... HY
BIOT2400	Introduction to Biotechnology II w/Lab*	4.0..... HY
BIOT2441	Quality Assurance for Biosciences**	3.0..... OL
BIOT2445	Molecular Biology Techniques w/Lab*	4.0..... HY
BIOT2500	Applied Biosciences: Practicum	3.0..... F2F
E. Humanities		3.0
Take one Humanities course from the Academic Transfer Requirements		
PHIL2130	Bioethics (recommended)	3.0.....F2F,OL
F. Social Sciences		3.0
Take one Social Science course from the Academic Transfer Requirements.		
PSYC1810	Introduction to Psychology (recommended)	3.0.....F2F,OL
Take one additional Humanities or Social Science course from the Academic Transfer Requirements.		3.0
HIST2110	World History Since 1500 CE (recommended)	3.0..... F2F
G. Culture & Gender Studies		
Take one Culture & Gender Studies course from the Academic Transfer Requirements.		3.0
H. Electives		
Suggested courses for students transferring:		
BIOS1410	Biology II w/Lab	4.0..... F2F
MATH1600	Analytic Geometry & Calculus I	5.....F2F,OL

SCC has an articulation agreement with Union College to provide a pathway for students from the Associate of Science with a Biotechnology Concentration to a Bachelor's of Science in Biomedical Science.

NOTE: Not all courses on this list will transfer credit to four-year colleges and universities. It is the student's responsibility to contact an advisor at the college or university to which they plan to transfer to determine the courses that will transfer. Students are encouraged to meet with an SCC transfer advisor.

*****Delivery Method**
 OL = **Online Classes
 F2F = Face-to-Face Classes
 HY = *Hybrid Classes (lecture is online, labs are face-to-face in person on campus)



Estimated Expenses

To determine overall costs, students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc., as well as the expenses below.

2019-2020 Tuition / Fee Rate Per Credit Hour: Nebraska Resident \$108
 Out-of-state tuition / fee rate \$129