# Program Transfer Pathway

**FROM** Degree: Associate of Science (A.S.)
Major: Biotechnology

**TO** Degree: Bachelor of Science (B.S.)
Major: Microbiology (CAS)

**Last Updated:** October 23, 2026 **Catalog Year(s):** 2026-2027

This program transfer pathway outlines an 8-semester plan that fulfills all requirements for the program listed above at Southeast Community College alongside the program(s) listed above at the University of Nebraska-Lincoln. While this pathway assumes full-time enrollment (14-16 credits/semester), we recognize that each student has a unique path and is expected to consult with their academic advisor in determining the best path toward degree completion at both institutions. As a full-time student, this pathway allows students to complete both degrees at their respective institutions within a 4-year timeline.

***Math and English Sequencing:*** Math and English readiness might impact the full semester-by-semester program transfer pathway. See your academic advisor for more information.

***Course Selection and Pathway Considerations***

- Courses that are marked with a * are part of a particular sequence of courses that must be taken in a particular order.
- Course(s) marked with *Italics* have multiple course options for that particular requirement. A list of courses may be selected from the Course Options list. While this list is not an exhaustive list of courses that fulfill each outcome at SCC, it provides a consolidated list of the most applicable courses that will benefit a student in transferring to UNL for this particular program of study. Selecting alternative courses other than what is recommended may impact remaining requirements at UNL. When a course is listed in multiple outcomes, it may be used to fill only one Core requirement.

***Note- To Complete this pathway in a 8-semester window, 2 summer classes must be completed, which is built into the plan below.***

| Southeast Community College – Semester 1 | | | University of Nebraska-Lincoln | | |
|---|---|---|---|---|---|
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| ACFS 1015 | Success@SCC | 1 | GNCR*** | General Elective | 1 |
| ENGL 1010 | English Composition I (WC #1) | 3 | ENGL 150 | Writing and Inquiry (ACE 1) | 3 |
| MATH 2170 | Applied Statistics (M #1) | 3 | STAT 218 | Introduction to Statistics (ACE 3) | 3 |
| BIOT 1400/L[A] | Introduction to Biotechnology I & Lab (Core) | 4 | AGRI 115 & | Biotechnology: Food, Health and Environment | 3 |
| | | | AGRI 1T*@ | Agricultural Science Elective | 1 |
| CHEM 1090 | General Chemistry I (Core) | 4 | CHEM 109A/L | General Chemistry I & Lab (ACE 4) | 3+1 |
| **Southeast Community College – Semester 2** | | | **University of Nebraska-Lincoln** | | |
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| WC 2 | Either ENGL 1020 or ENGL 2560 | 3 | CDR | CDR Writing | 3 |
| *MATH 1600* | *Calculus I And Analytic Geometry (M #2)* | *5* | MATH 106 | Calculus I (Major) | 5 |
| CHEM 1100 | General Chemistry II (Core) | 4 | CHEM 110A/L | General Chemistry II & Lab (CDR Science w/ Lab) | 3+1 |
| BIOS 1400 | Biology I (Core) | 4 | LIFE 120/L | Fundamental of Biology I and Lab | 3+1 |
| **Southeast Community College – Summer** | | | **University of Nebraska-Lincoln** | | |
| *H* | *Any ACE 5 Approved H course* | *3* | *ACE 5* | ACE 5 Approved Course | 3 |
| *SS* | *Any ACE 6 Approved SS Course* | *3* | ACE 6 | ACE 6 Approved Course | 3 |
| **Southeast Community College – Semester 3** | | | **University of Nebraska-Lincoln** | | |
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| *CS* | *COMM 2810 or COMM 1110 (SC)* | *3* | ACE 2 | ACE 2 Approved Course | 3 |
| BIOT 2441 | Quality Assurance for Biosciences (Core) | 3 | BIOS1T*@ | Elective | 3 |
| BIOS 1410 [A] | Biology II (STEM 1) | 4 | LIFE 121/L | Fundamentals of Biology II and Lab | 3+1 |
| CHEM 2510 [A] | Organic Chemistry I (STEM 2) | 4 | CHEM 251 | Organic Chemistry I | 3 |
| | | | CHEM 253 | Organic Chemistry I Lab | 1 |
| **Southeast Community College – Semester 4** | | | **University of Nebraska-Lincoln** | | |
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| BIOT 2400/L | Advanced Biotechnology and Biomanufacturing and Lab (Core) | 4 | BIOS1T*@ | Elective | 4 |
| CHEM 2520 [B] | Organic Chemistry II (STEM 3) | 4 | CHEM 252 | Organic Chemistry II | 3 |
| | | | CHEM 254 | Organic Chemistry II Lab | 1 |
| *Elective* | *Elective from Approved Elective List* | *3* | | Verify Transferability with Academic Advisor | 3 |
| *C&GS* | *Any ACE 9 approved C&GS Course* | *3* | ACE 9 | ACE 9 Approved Course | 3 |
| **Total Credits Required for A.S.:** | | **65** | | Total Transfer credits toward B.S. | 60 |
| | | | | Total remaining credits required | 60 |

[A] While the catalog denotes other choices students can complete for the STEM course requirements, this pathway requires this specific course.
[B] While CHEM 2520 is recommended by UNL, it is not required to be taken at SCC or UNL. It does fulfill a requirement for Sequence 2 of the Biochemistry and Organic Chemistry sequence at UNL. If a student does stop at CHEM 2510, students can pursue Sequence 1 for this requirement instead, although possible career pathways requiring postgraduate degrees may be limited.

SCC Reviewers: T. Lazarowicz 10/23/2026 UNL University Reviewers: M. Savage 9/15/2026

## Remaining University of Nebraska-Lincoln Coursework

| University of Nebraska-Lincoln – Semester 1 | | | University of Nebraska-Lincoln – Semester 2 | | |
|---|---|---|---|---|---|
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| MBIO 101 | Introduction to the Microbiology Major | 1 | PHYS 141 | Physics for Life Sciences I | 5 |
| BIOS 312 | Microbiology | 3 | MBIO | Advanced Microbiology Lab Course | 3-5 |
| BIOS 314 | Microbiology Lab | 1 | MBIO | Microbiology (Microbial Diversity & Ecology Sub-area course) | 3 |
| BIOS 201 | General Genetics | 4 | BIOC 431 | Biochemistry I: Structure and Metabolism | 3 |
| MBIO | Microbiology (Organismal Microbiology Sub-area course) | 3 | | | |
| XXXX | Elective, Minor, or pre-health course | 3 | | | |
| **University of Nebraska-Lincoln – Semester 3** | | | **University of Nebraska-Lincoln – Semester 4** | | |
| **Course** | **Title/ Program Requirement** | **Cr Hrs** | **Course** | **Title/ Program Requirement** | **Cr Hrs** |
| PHYS 142 | Physics for Life Sciences II | 5 | MBIO 420 or MBIO 418 | Molecular Genetics (ACE 10) Microbial Genetics and Genomics (ACE 10) | 3 |
| MBIO | Microbiology (Microbe Host Interactions Sub-area course) | 3 | MBIO | Microbiology (extra Sub-area course of choice) | 3 |
| MBIO 440 | Microbial Physiology | 3 | MBIO Major | Computational Approaches Course | 3-4 |
| CDR | CDR Social Science & Diversity Course | 3 | CDR | CDR Humanities | 3 |
| | | | XXXX 3/4xx | Upper-level Elective, Minor, or pre-health course | 2-4 |
| | | | Total credits required to earn both Associates and Bachelor's degrees. | | *123-125* |

**Notes**:
* All equivalent courses must be completed with a grade of "C " or better to transfer for major requirements. Up to 15 credits of "D" and "C-" coursework can transfer toward general degree requirements.
* Developmental coursework will not be included in transfer
* The College of Arts and Science at the University of Nebraska-Lincoln requires completion of the equivalent of the second-year level of one world language in high school or completion of a 102-level language class to meet the CDR Language requirement for a Bachelor of Science. Languages regularly available at SCC include Spanish and American Sign Language.
*Math readiness impacts the full semester-by-semester program transfer pathway.

**Experiential Learning**
All UNL students must complete at least one approved Experiential Learning course (including 0-credit choices). Microbiology majors have many options, including these popular choices:

- Internships: Microbiology students intern in a variety of public and private organizations. Document your experience on your transcript with CASC 95 (0-credit).
- Undergraduate Research: Work with a faculty member on their research or pursue your own research interests through UCARE (Undergraduate Creative Activity and Research Experience), a paid program. Earn credit with MBIO 498 (Advanced Microbiology Laboratory Course) or simply document your experience on your transcript with CASC 98 (0-credit).
- Education Abroad: Choose from affiliate programs around the world, or travel and learn with a UNL faculty member and fellow students.
- Leadership: Microbiology majors are active leaders on campus, including serving on ASUN (Associated Students of the University of Nebraska), or as Orientation Leaders, Ambassadors, and Resident Assistants. These significant on-going leadership experiences may be documented on your transcript with CASC 97 (0-credit).

**Questions about UNL requirements?**
Contact the College of Arts and Sciences Academic and Career Advising Center at casadvising@unl.edu, 402-472-4190.

**Additional Advising Resources for Pre-Health Students:**
*NOTE: This plan does not complete the pre-requisite requirements for students desiring to pursue Medical School.*
In addition to the academic advisor and career coach you will be assigned in the College of Arts and Sciences, you will also be able to access specialized advising for pre-health students through the Explore Center at UNL. Explore Center advisors are experts in the admissions requirements for a variety of health-related professional schools and can help you plan your application timeline. This includes admissions exams along with the types of experience that will make you competitive, like shadowing, volunteering, clinical experience, and research. Many pre-health programs require specific courses to be taken for admissions purposes, or to be prepared for entrance examinations. More information about the Explore Center at UNL and pre-professional course requirements can be found at https://explorecenter.unl.edu/pre-health-programs/.

Southeast COMMUNITY COLLEGE

# Associate of Science - Alternative Course Options (ACE in Parentheses)
## Catalog year(s): 2026-2027
## Bolded course is primary course on program transfer pathway

| Course | Title | Cr | Course | Title | Cr |
|---|---|---|---|---|---|
| **Mathematics (M) (take 2 classes)** | | | | | |
| MATH 1150 | College Algebra | 3 | **MATH 1600** | **Calculus I and Analytic Geometry (3)** | **5** |
| MATH 1200 | Trigonometry | 3 | MATH 1700 | Calculus & Analytic Geometry II (3) | 5 |
| MATH 1300 | Pre-calculus | 5 | **MATH 2170/ BSAD 2170** | **Applied Statistics (3)** | **3** |
| **Natural Science / Biotechnology STEM Courses (STEM) (select 3 courses)** | | | | | |
| **BIOS 1410** | **Biology II (4)** | **4** | MATH 1600 | Calculus I and Analytic Geometry (3) | 5 |
| BIOS 2410 | General Genetics | 4 | MATH 1700 | Calculus & Analytic Geometry II (3) | 5 |
| BIOS 2460 | Microbiology | 4 | MATH 2170/ BSAD 2170 | Applied Statistics (3) | 3 |
| BIOT 2445 | Molecular Biology Techniques | 4 | PHYS 1410 | Elementary General Physics I (4) | 5 |
| BIOT 2500 | Applied Biosciences: Practicum | 3 | PHYS 1420 | Elementary General Physics II (4) | 5 |
| **CHEM 2510** | **Organic Chemistry I** | **4** | PHYS 2110 | General Physics I (4) | 5 |
| CHEM 2520 | Organic Chemistry II | 4 | PHYS 2120 | General Physics II (4) | 5 |
| MATH 1300 | Pre-calculus | 5 | | | |
| **Humanities (H) (select 1 course)** | | | | | |
| **Group 1- Literature/Journalism/Communication** | | | | | |
| COMM 2100 | Communicating in Groups and Teams (2) | 3 | ENGL 2200 | Science Fiction Literature (5) | 3 |
| COMM 2750/ POLS 2750 | Political Communication | 3 | ENGL 2220 | British Literature Post-1800 (5) | 3 |
| ENGL 2050 | Modern Fiction (5) | 3 | ENGL 2440 | African American Literature (5,9) | 3 |
| ENGL 2100 | Introduction to Literature (5) | 3 | ENGL 2450 | Native American Literature (5,9) | 3 |
| ENGL 2140 | Introduction to Shakespeare (5) | 3 | ENGL 2460 | Latinx Literature (5,9) | 3 |
| ENGL 2150 | Introduction to Women's Literature (5,9) | 3 | ENGL 2470 | Asian American Literature (5,9) | 3 |
| ENGL 2160 | Children's Literature (5) | 3 | JOUR 1810 | Introduction to Mass Media | 3 |
| ENGL 2170 | American Literature from 1865 (5) | 3 | JOUR 1820 | Media Writing | 3 |
| **Group 2- History/Philosophy** | | | | | |
| HIST 1000 | Western Tradition to 1500 (5) | 3 | PHIL 1060 | Applied Ethics (8,9) | 3 |
| HIST 1010 | Western Tradition since 1500 (5) | 3 | PHIL 1100 | Introduction to Logic and Critical Thinking (3) | 3 |
| HIST 2010 | American History I (5) | 3 | PHIL 2110 | Introduction to Modern Logic (3) | 3 |
| HIST 2020 | American History II (5) | 3 | PHIL 2130 | Bioethics (5,8) | 3 |
| HIST 2100 | World History to 1500 CE (9) | 3 | PHIL 2250 | Environmental Ethics (8,9) | 3 |
| HIST 2110 | World History since 1500 CE (9) | 3 | PHIL 2610/ RELS 2610 | Comparative Religions (9) | 3 |
| HIST 2960 | Survey of African American History | 3 | PHIL 2650 | Philosophy of Religion (5,9) | 3 |
| PHIL 1010 | Introduction to Philosophy (5,8) | 3 | | | |
| **Group 3- Creative/Fine/Performing Arts** | | | | | |
| ARTS 1010 | Introduction to the Visual Arts | 3 | HUMS 1100 | Introduction to Humanities | 3 |
| ARTS 1050 | Introduction to Art History & Criticism I (7) | 3 | HUMS 1200 | Contemporary Arts & Ideas (7) | 3 |
| ARTS 1060 | Introduction to Art History & Criticism II (7) | 3 | MUSC 1010 | Introduction to Music (Music Appreciation) (7) | 3 |
| ARTS 1110 | Beginning Drawing I | 3 | MUSC 1610 | Music Theory I | 4 |
| ARTS 1330 | Beginning Ceramics I | 3 | MUSC 2750 | Introduction to American Music | 3 |
| ARTS 2650 | Introduction to Native American Art | 3 | MUSC 2800 | Introduction to World Music (7,9) | 3 |
| ARTS 2750 | Women in Art | 3 | MUSC 2870 | History of Rock Music (7) | 3 |
| ARTS 2850 | History of Photography | 3 | PHOT 1750 | Beginning Photography | 3 |
| COMM 2050 | Oral Performance of Literature | 3 | THEA 1010 | Introduction to Theatre | 3 |
| ENGL 1510 | Introduction to Creative Writing (7) | 3 | THEA 1140 | Basic Acting | 3 |
| ENGL 2520 | Fiction Writing (7) | 3 | THEA 2130 | Film Appreciation (7) | 3 |
| ENGL 2530 | Poetry Writing (7) | 3 | | | |
| **Social Science (SS) (select 1 course)** | | | | | |
| **Group 1- Anthropology/Psychology/Sociology** | | | | | |
| ANTH 1020 | Introduction to Cultural Anthropology (6) | 3 | PSYC 2880 | Social Psychology (6) | 3 |
| ANTH 1120 | General Anthropology (6,9) | 3 | SOCI 1010 | Introduction to Sociology (6) | 3 |
| BIOS 2210 | Animal Behavior | 3 | SOCI 1020 | Diversity in Society | 3 |
| PSYC 1250 | Interpersonal Relations (2) | 3 | SOCI 2000 | Gender in Contemporary Society (6,9) | 3 |
| PSYC 1810 | Introduction to Psychology (6) | 3 | SOCI 2010 | Social Problems (6,9) | 3 |
| PSYC 2200 | Human Development | 3 | SOCI 2150 | Issues of Unity and Diversity (6,9) | 3 |
| PSYC 2210 | Animal Behavior | 3 | SOCI 2250 | Marriage and the Family (6,9) | 3 |
| **Group 2- Economics/ Political Science** | | | | | |
| ECON 1200 | Personal Finance (6) | 3 | POLS 1040 | Comparative Politics | 3 |
| ECON 2110 | Principles of Macroeconomics (6) | 3 | POLS 1080 | Introduction to Political Science | 3 |
| ECON 2120 | Principles of Microeconomics (6) | 3 | POLS 1600 | International Relations (9) | 3 |
| POLS 1000 | American Government (6,8) | 3 | POLS 2750/ COMM 2750 | Political Communication | 3 |
| **Group 3- Geography/Education/Physical Education** | | | | | |
| EDUC 1110 | Introduction to Professional Education | 3 | GEOG 1020 | World Regional Geography (9) | 3 |
| EDUC 2000 | Educational Psychology | 3 | GEOG 1400 | Human Geography (9) | 3 |
| EDUC 2300 | Introduction to Special Education | 3 | GEOG 2810 | Introduction to Water Science | 3 |
| EDUC 2590 | Instructional Technology (2) | 3 | PHED 1000 | Lifetime Wellness | 3 |
| EDUC 2800 | Professional Practicum | 2 | | | |

| Culture and Gender Studies (C &GS) | | | | | |
|---|---|---|---|---|---|
| ANTH 1020 | Introduction to Cultural Anthropology (6) | 3 | GLST 1000 | Introduction to Global Studies | 3 |
| ANTH 1120 | General Anthropology (6,9) | 3 | GLST 2980/2981 | Global Studies Experience | 3 |
| ARTS 2650 | Introduction to Native American Art | 3 | HIST 2100 | World History to 1500 CE (9) | 3 |
| ARTS 2750 | Women in Art | 3 | HIST 2110 | World History since 1500 CE (9) | 3 |
| COMM 2110 | Intercultural Communication | 3 | HIST 2960 | Survey of African American History | 3 |
| EDUC 2300 | Introduction to Special Education | 3 | HMRS 1320 | Multicultural Competency (9) | 3 |
| ENGL 2150 | Introduction to Women's Literature (5,9) | 3 | MUSC 2800 | Introduction to World Music (7,9) | 3 |
| ENGL 2440 | African American Literature (5,9) | 3 | PHIL 2610/ RELS 2610 | Comparative Religions (9) | 3 |
| ENGL 2450 | Native American Literature (5,9) | 3 | POLS 1600 | International Relations (9) | 3 |
| ENGL 2460 | Latinx Literature (5,9) | 3 | SOCI 1020 | Diversity in Society | 3 |
| ENGL 2470 | Asian American Literature (5,9) | 3 | SOCI 2000 | Gender in Contemporary Society (6,9) | 3 |
| GEOG 1020 | World Regional Geography (9) | 3 | SOCI 2010 | Social Problems (6,9) | 3 |
| GEOG 1400 | Human Geography (9) | 3 | SOCI 2150 | Issues of Unity and Diversity (6,9) | 3 |

**Electives (select 1 course)**

See full list of elective courses by going to https://catalog.southeast.edu/preview_program.php?catoid=22&poid=3670&returnto=2750. Consult your faculty advisor for the recommendation that best matches your education and career goals.