

SCIENCE FOR HEALTH PROFESSIONS, ASSOCIATE IN SCIENCE (HSCI)

Effective: Spring 2019

The Science for Health Professions Program is designed for students who plan to transfer and continue their education in an allied health or pre-medical field at another institution. It provides the basic sciences and mathematics needed for a variety of programs, including Physical Therapy, Occupational Therapy, Baccalaureate Nursing, Physician Assistant, Pharmacy, Medicine, Dentistry, Veterinary Medicine, Optometry and Podiatry. Since admission requirements to other institutions vary, students should obtain information on entrance requirements for the specific school and program in which they are interested. Students are strongly encouraged to consult with both the Transfer Office at DCCC and their advisor regarding the best course selections for their transfer.

Program Outcomes

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of biological and chemical principles and concepts applicable to the health sciences.
- Perform selected tasks relative to laboratory experiments in the biological and chemical sciences.
- Use the scientific method to gather and interpret data and draw conclusions.
- Demonstrate an understanding of mathematical principles and concepts.

Full-Time Academic Plan

The College Transfer Office (<https://www.dccc.edu/admissions-financial-aid/transfer/transfer-office/>) is set up to help Delaware County Community College students transfer to four-year colleges and universities. If you are planning to transfer, you are strongly encouraged to meet with a transfer advisor within your first two semesters (or before you reach 30 transferable college credits from all institutions attended).

First Semester		Hours
ENG 100	English Composition I	3
BIO 110 or BIO 150	General Biology I or Human Anatomy and Physiology I	4
CHE 101 or CHE 110	Introduction to General Chemistry or General Chemistry I	4
Select one of the following:		3-4
MAT 121	Introduction to Probability and Statistics	
MAT 151	College Algebra	
MAT 152	Precalculus	
MAT 160	Calculus I	
Hours		14-15

Second Semester		Hours
ENG 112	English Composition II: Writing About Literature	3
COMM 100 or COMM 111	Interpersonal Communication or Public Speaking	3
Mathematics Required Elective		3-4
Laboratory Science Required Electives		4
Any transferable Diversity and Social Justice and Global Understanding designated Social Science or Humanities course		3
Hours		16-17

Third Semester		
CS 100 or CS 101	Introduction to Information Technology or Introduction to Computer Science	3
Mathematics/Science Required Elective		3-5
Laboratory Science Required Elective		4-5
Behavioral & Social Science Elective		3
Arts & Humanities Elective		3
Hours		16-19
Fourth Semester		
Mathematics/Science Required Elective		3-5
Mathematics/Science Required Elective		3-5
Behavioral & Social Science Elective		3
Open Elective		3
Open Elective		3
Hours		15-19
Total Hours		61-70

Notes

Diversity and Social Justice (DJ) and Global Understanding (GU) designated courses. (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#Dual_DJ_GU_CourseList)

Arts and Humanities Electives

This list does not indicate College Academic Learning Goal designation (<https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/>). Refer to your program curriculum for more information.

The subject areas listed are generally transferable to most institutions. However, transferability is always determined by the college or university you are planning to transfer to. Be sure to meet with a transfer advisor before making your course selections.

- ART - Art (<https://catalog.dccc.edu/courses/course-descriptions/art/>)
- COMM - Communication Studies (<https://catalog.dccc.edu/courses/course-descriptions/comm/>)
- DRA - Drama (<https://catalog.dccc.edu/courses/course-descriptions/dra/>)
- ENG - English (<https://catalog.dccc.edu/courses/course-descriptions/eng/>) (ENG 115 and above)
- HUM - Humanities (<https://catalog.dccc.edu/courses/course-descriptions/hum/>)
- MUS - Music (<https://catalog.dccc.edu/courses/course-descriptions/mus/>)
- PHI - Philosophy (<https://catalog.dccc.edu/courses/course-descriptions/phi/>)

Some programs specify or recommend a Foreign Language.

Code	Title	Hours
<i>Foreign Languages:</i>		
FRE 101	Elementary French I	
FRE 102	Elementary French II	
FRE 111	Intermediate French I	
FRE 112	Intermediate French II	
SPA 101	Elementary Spanish I	
SPA 102	Elementary Spanish II	

SPA 201	Intermediate Spanish I
SPA 202	Intermediate Spanish II

Behavioral and Social Science

This list does not indicate College Academic Learning Goal designation (<https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/>). Refer to your program curriculum for more information.

The subject areas listed are generally transferable to most institutions. However, transferability is always determined by the college or university you are planning to transfer to. Depending on the program at the transfer institution, the courses may only be accepted as free electives. Be sure to meet with a transfer advisor before making your course selections.

- ADJ - Administration of Justice (<https://catalog.dccc.edu/courses/course-descriptions/adj/>)
- ECE - Early Childhood Education (<https://catalog.dccc.edu/courses/course-descriptions/ece/>)
- ECO - Economics (<https://catalog.dccc.edu/courses/course-descriptions/eco/>)
- EDU - Education (<https://catalog.dccc.edu/courses/course-descriptions/edu/>)
- HIS - History (<https://catalog.dccc.edu/courses/course-descriptions/his/>)
- INT - Interdisciplinary (<https://catalog.dccc.edu/courses/course-descriptions/int/>)
- POL - Political Science (<https://catalog.dccc.edu/courses/course-descriptions/pol/>)
- PSY - Psychology (<https://catalog.dccc.edu/courses/course-descriptions/psy/>)
- SOC - Sociology (<https://catalog.dccc.edu/courses/course-descriptions/soc/>)
- SWO - Social Work (<https://catalog.dccc.edu/courses/course-descriptions/swo/>)
- TSC - Trauma Studies (<https://catalog.dccc.edu/courses/course-descriptions/tsc/>)

Mathematics (3-4 credits):

Code	Title	Hours
MAT 128	Algebra	4
MAT 121	Introduction to Probability and Statistics	3
MAT 151	College Algebra	4
MAT 152	Precalculus	4
MAT 160	Calculus I	4
MAT 161	Calculus II	4
MAT 200	Linear Algebra	3
MAT 210	Statistics	3
MAT 230	Foundations of Discrete Mathematics	3
MAT 260	Calculus III	4
MAT 261	Differential Equations	3

Laboratory Science (8 credits):

Code	Title	Hours
BIO 110	General Biology I	4
BIO 111	General Biology II	4
BIO 150	Human Anatomy and Physiology I	4
BIO 151	Human Anatomy and Physiology II	4

BIO 200	General Zoology	4
BIO 210	General Botany	4
BIO 230	Introduction to Microbiology	4
BIO 240	General Microbiology	4
BIO 250	Genetics	4
CHE 101	Introduction to General Chemistry	4
CHE 102	Introduction to Organic and Biological Chemistry	4
CHE 110	General Chemistry I	4
CHE 111	General Chemistry II	4
CHE 200	Organic Chemistry I	5
CHE 201	Organic Chemistry II	5
PHY 110	College Physics I	4
PHY 111	College Physics II	4
PHY 131	University Physics I	4
PHY 132	University Physics II	4

Mathematics/Science (9-14 credits):

Code	Title	Hours
MAT 128	Algebra	4
MAT 121	Introduction to Probability and Statistics	3
MAT 151	College Algebra	4
MAT 152	Precalculus	4
MAT 160	Calculus I	4
MAT 161	Calculus II	4
MAT 200	Linear Algebra	3
MAT 210	Statistics	3
MAT 230	Foundations of Discrete Mathematics	3
MAT 260	Calculus III	4
MAT 261	Differential Equations	3
BIO 110	General Biology I	4
BIO 111	General Biology II	4
BIO 150	Human Anatomy and Physiology I	4
BIO 151	Human Anatomy and Physiology II	4
BIO 200	General Zoology	4
BIO 210	General Botany	4
BIO 220	Nutrition and Well Being	3
BIO 230	Introduction to Microbiology	4
BIO 240	General Microbiology	4
BIO 250	Genetics	4
CHE 101	Introduction to General Chemistry	4
CHE 102	Introduction to Organic and Biological Chemistry	4
CHE 110	General Chemistry I	4
CHE 111	General Chemistry II	4
CHE 200	Organic Chemistry I	5
CHE 201	Organic Chemistry II	5
PHY 110	College Physics I	4
PHY 111	College Physics II	4
PHY 131	University Physics I	4
PHY 132	University Physics II	4

Part-Time Academic Plan

Course	Title	Hours
First Semester		
ENG 100	English Composition I	3
BIO 110 or BIO 150	General Biology I or Human Anatomy and Physiology I	4
CHE 101 or CHE 110	Introduction to General Chemistry or General Chemistry I	4
Hours		11
Second Semester		
Select one of the following:		3-4
MAT 121	Introduction to Probability and Statistics	
MAT 151	College Algebra	
MAT 152	Precalculus	
MAT 160	Calculus I	
ENG 112	English Composition II: Writing About Literature	3
COMM 100 or COMM 111	Interpersonal Communication or Public Speaking	3
Hours		9-10
Third Semester		
Mathematics Required Elective		3-4
Laboratory Science Required Electives		4
Humanities Elective		3
Hours		10-11
Fourth Semester		
CS 100 or CS 101	Introduction to Information Technology or Introduction to Computer Science	3
Mathematics/Science Required Elective		3-5
Laboratory Science Required Elective		4-5
Hours		10-13
Fifth Semester		
Social Science Elective		3
Humanities Elective		3
Mathematics/Science Required Elective		3-5
Hours		9-11
Sixth Semester		
Mathematics/Science Required Elective		3-5
Social Science Elective		3
Hours		6-8
Seventh Semester		
Open Electives		6
Hours		6
Total Hours		61-70

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MAT 160	Calculus I	4
MAT 161	Calculus II	4
MAT 200	Linear Algebra	3
MAT 210	Statistics	3
MAT 230	Foundations of Discrete Mathematics	3
MAT 260	Calculus III	4
MAT 261	Differential Equations	3

Laboratory Science (8 credits):

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BIO 111	General Biology II	4
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BIO 151	Human Anatomy and Physiology II	4
BIO 200	General Zoology	4
BIO 210	General Botany	4
BIO 230	Introduction to Microbiology	4
BIO 240	General Microbiology	4
BIO 250	Genetics	4
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CHE 102	Introduction to Organic and Biological Chemistry	4
CHE 110	General Chemistry I	4
CHE 111	General Chemistry II	4
CHE 200	Organic Chemistry I	5
CHE 201	Organic Chemistry II	5
PHY 110	College Physics I	4
PHY 111	College Physics II	4
PHY 131	University Physics I	4
PHY 132	University Physics II	4

Mathematics/Science (9-14 credits):

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MAT 152	Precalculus	4
MAT 160	Calculus I	4
MAT 161	Calculus II	4
MAT 200	Linear Algebra	3
MAT 210	Statistics	3
MAT 230	Foundations of Discrete Mathematics	3
MAT 260	Calculus III	4
MAT 261	Differential Equations	3
BIO 110	General Biology I	4

BIO 111	General Biology II	4
BIO 150	Human Anatomy and Physiology I	4
BIO 151	Human Anatomy and Physiology II	4
BIO 200	General Zoology	4
BIO 210	General Botany	4
BIO 220	Nutrition and Well Being	3
BIO 230	Introduction to Microbiology	4
BIO 240	General Microbiology	4
BIO 250	Genetics	4
CHE 101	Introduction to General Chemistry	4
CHE 102	Introduction to Organic and Biological Chemistry	4
CHE 110	General Chemistry I	4
CHE 111	General Chemistry II	4
CHE 200	Organic Chemistry I	5
CHE 201	Organic Chemistry II	5
PHY 110	College Physics I	4
PHY 111	College Physics II	4
PHY 131	University Physics I	4
PHY 132	University Physics II	4

Campus Locations

HYBRID DEGREE (online* and classroom)

70% online

The following courses may not be available online:

Code	Title	Hours
BIO 110	General Biology I	4
or BIO 150	Human Anatomy and Physiology I	
CHE 101	Introduction to General Chemistry	4
or CHE 110	General Chemistry I	
MAT 160	Calculus I	4
COMM 111	Public Speaking	3
	Laboratory Science Elective	4
	Mathematics/Science Elective	

* Some online courses have **field requirements** or **in-person or proctored testing**. Online courses with these requirements have additional information posted under the **COURSE DESCRIPTION** section when you are registering. Please note these requirements when registering.

Career