

BIOLOGY FOR PRE-HEALTH STUDIES CONCENTRATION

Program Description

The **Associate in Science (A.S.) in Science – Biology for Pre-Health Studies (Pre-Professional) Concentration** is designed for students who plan to transfer to a four-year institution to pursue a bachelor's degree in a life science field while preparing for admission to professional health programs.

This concentration provides a strong foundation in biology, chemistry (including organic chemistry), and mathematics, along with rigorous laboratory experience. Students develop critical thinking, quantitative reasoning, and scientific problem-solving skills essential for success in upper-level coursework and competitive professional programs.

The curriculum is structured to support students interested in careers such as medicine, dentistry, pharmacy, veterinary medicine, physician assistant studies, physical therapy, occupational therapy, and other health professions.

Because mathematics preparation varies by student, multiple course sequences are available. Students should review the additional tabs and select the appropriate pathway based on their starting level in mathematics. Beginning in the appropriate math course is essential to maintaining steady progress toward graduation and transfer.

Transfer Information

The Biology for Pre-Health Studies concentration is structured to align with bachelor's degree programs in biology, biochemistry, or related life science majors that meet prerequisites for professional schools.

Students intending to pursue a health profession should work closely with OCC faculty and Advising & Transfer Services to ensure that their coursework aligns with both bachelor's degree requirements and professional school prerequisites. Many health professions have specific admission requirements beyond degree completion, including GPA thresholds, entrance exams, volunteer or clinical experience, and prerequisite coursework.

Students planning to transfer within New Jersey can explore the "Transfer Programs" feature on NJ Transfer (www.njtransfer.org (<http://www.njtransfer.org>)) to review articulation agreements and institutional requirements.

Early and intentional academic planning is strongly recommended for students pursuing competitive health professions.

Career Information

The A.S. in Science – Biology for Pre-Health Studies Concentration is designed primarily for transfer. A bachelor's degree and completion of a professional program are required for most clinical health careers.

After completing advanced study, graduates may pursue careers such as:

- Physician
- Dentist
- Pharmacist
- Physician Assistant
- Physical or Occupational Therapist
- Veterinarian
- Clinical laboratory professional

Students are strongly encouraged to consult with OCC faculty and Career Services early in their academic journey to map out prerequisites, experiential expectations, and long-term preparation for professional school admission. OCC students may also use Focus2 Career through Ocean Connect to explore health-related career pathways and academic planning resources.

Fall One		Credit Hours
STSC 150	Student Success Seminar	2
ENGL 151	English I	3
MATH 166	Topics in Algebra	4
PSYC 172	General Psychology	3
BIOL 161 & 161L	General Biology I Lecture and General Biology I Lab	4
Credit Hours		16
Spring One		Credit Hours
ENGL 152	English II	3
MATH 196	Precalculus	4
BIOL 162 & 162L	General Biology II Lecture and General Biology II Lab	4
BIOL 130 & 130L	Human Anatomy and Physiology I Lecture and Human Anatomy and Physiology I Lab	4
Credit Hours		15
Fall Two		Credit Hours
MATH 265	Calculus I	4
BIOL 131 & 131L	Human Anatomy & Physiology II Lecture and Human Anatomy and Physiology II Lab	4
CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
HIST 171	Western Civilization to 1650	3
Credit Hours		15
Spring Two		Credit Hours
CHEM 182 & 182L	General Chemistry II Lecture and General Chemistry II Lab	4
SOCI 181	Introduction to Sociology	3
PHYS 171 & 171L	Physics I Lecture and Physics I Lab	4
CSIT 123	Integrated Office Software	3
Credit Hours		14
Total Credit Hours		60

Fall One		Credit Hours
STSC 150	Student Success Seminar	2
ENGL 151	English I	3
MATH 196	Precalculus	4
PSYC 172	General Psychology	3
BIOL 161 & 161L	General Biology I Lecture and General Biology I Lab	4
Credit Hours		16
Spring One		Credit Hours
ENGL 152	English II	3
MATH 265	Calculus I	4
BIOL 130 & 130L	Human Anatomy and Physiology I Lecture and Human Anatomy and Physiology I Lab	4

BIOL 162 & 162L	General Biology II Lecture and General Biology II Lab	4
Credit Hours		15

Fall Two

BIOL 131 & 131L	Human Anatomy & Physiology II Lecture and Human Anatomy and Physiology II Lab	4
CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
HIST 171	Western Civilization to 1650	3
PHYS 171 & 171L	Physics I Lecture and Physics I Lab	4
Credit Hours		15

Spring Two

CHEM 182 & 182L	General Chemistry II Lecture and General Chemistry II Lab	4
PHYS 172 & 172L	Physics II Lecture and Physics II Lab	4
CSIT 123	Integrated Office Software	3
SOCI 181	Introduction to Sociology	3
Credit Hours		14
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Fall One**Credit Hours**

STSC 150	Student Success Seminar	2
ENGL 151	English I	3
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PSYC 172	General Psychology	3
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Spring One

ENGL 152	English II	3
BIOL 162 & 162L	General Biology II Lecture and General Biology II Lab	4
BIOL 130 & 130L	Human Anatomy and Physiology I Lecture and Human Anatomy and Physiology I Lab	4
CSIT 123	Integrated Office Software	3
Credit Hours		14

Fall Two

BIOL 131 & 131L	Human Anatomy & Physiology II Lecture and Human Anatomy and Physiology II Lab	4
HIST 171	Western Civilization to 1650	3
CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
PHYS 171 & 171L	Physics I Lecture and Physics I Lab	4
Credit Hours		15

Spring Two

CHEM 182 & 182L	General Chemistry II Lecture and General Chemistry II Lab	4
PHYS 172 & 172L	Physics II Lecture and Physics II Lab	4
BIOL 232 & 232L	Microbiology Lecture and Microbiology Lab	4
SOCI 181	Introduction to Sociology	3
Credit Hours		15
Total Credit Hours		60