

BIOLOGY EDUCATION CONCENTRATION

Program Description

The **Associate in Science (A.S.) in Science – Biology Education Concentration** is designed for students who plan to transfer to a four-year institution to pursue a bachelor's degree in biology education or a related field that leads to teacher certification.

This concentration provides a strong foundation in biology, chemistry, and mathematics, along with laboratory-based scientific inquiry. Students develop analytical thinking, quantitative reasoning, and communication skills that are essential for future science educators. Coursework prepares students to understand core biological principles while building the academic foundation required for upper-level study and teacher preparation programs.

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 correct math sequence is critical to maintaining progress toward graduation and transfer.

Transfer Information

The Biology Education concentration is structured to align with bachelor's degree programs in biology education and related teacher preparation pathways. Students intending to pursue teacher certification should work closely with OCC faculty and Advising & Transfer Services to ensure that coursework meets transfer and certification requirements at their intended institution.

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.

Because teacher certification programs often have specific GPA and course requirements, early and intentional academic planning is strongly recommended.

Career Information

The A.S. in Science – Biology Education Concentration is designed primarily for transfer. A bachelor's degree and completion of a state-approved teacher preparation program are required to become a certified biology teacher.

With a bachelor's degree and certification, graduates may pursue careers such as:

- Middle school science teacher
- High school biology teacher
- STEM education specialist
- Educational outreach coordinator

- Informal science educator (museums, nature centers, community programs)

Students are encouraged to consult with OCC faculty and Career Services to explore pathways into teaching and related education fields. OCC students may also use Focus2 Career through Ocean Connect to explore career options connected to science education.

Fall One		Credit Hours
STSC 150	Student Success Seminar	2
ENGL 151	English I	3
MATH 166	Topics in Algebra	4
BIOL 161 & 161L	General Biology I Lecture and General Biology I Lab	4
EDUC 178	Introduction to the Education of Exceptional Students	3
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
CSIT 123	Integrated Office Software	3
PSYC 172	General Psychology	3
Credit Hours		17
Fall Two		Credit Hours
CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
ENVI 152 & 152L	Environmental Science Lecture and Environmental Science Lab	4
HIST 173	United States History to 1877	3
COMM 154	Fundamentals of Public Speaking	3
Credit Hours		14
Spring Two		Credit Hours
EDUC 261 or EDUC 277	Development of the Learner or The Teaching Profession in America	3
CHEM 182 & 182L	General Chemistry II Lecture and General Chemistry II Lab	4
PHYS 171 & 171L	Physics I Lecture and Physics I Lab	4
SOCI 181	Introduction to Sociology	3
Credit Hours		14
Total Credit Hours		61
Fall One		Credit Hours
STSC 150	Student Success Seminar	2
ENGL 151	English I	3
MATH 196	Precalculus	4
BIOL 161 & 161L	General Biology I Lecture and General Biology I Lab	4
EDUC 178	Introduction to the Education of Exceptional Students	3
Credit Hours		16
Spring One		Credit Hours
ENGL 152	English II	3
BIOL 162 & 162L	General Biology II Lecture and General Biology II Lab	4
MATH 265	Calculus I	4
CSIT 123	Integrated Office Software	3
PSYC 172	General Psychology	3
Credit Hours		17
Fall Two		Credit Hours
CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
COMM 154	Fundamentals of Public Speaking	3

ENVI 152 & 152L	Environmental Science Lecture and Environmental Science Lab	4
HIST 173	United States History to 1877	3

Credit Hours	14
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Spring Two

EDUC 261 or EDUC 277	Development of the Learner or The Teaching Profession in America	3
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

Credit Hours	14
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Total Credit Hours	61
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Fall One	Credit Hours	
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ENGL 151	English I	3
MATH 265	Calculus I	4
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EDUC 178	Introduction to the Education of Exceptional Students	3

Credit Hours	16
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Spring One

ENGL 152	English II	3
BIOL 162 & 162L	General Biology II Lecture and General Biology II Lab	4
MATH 156	Introduction to Statistics	3
CSIT 123	Integrated Office Software	3
PSYC 172	General Psychology	3

Credit Hours	16
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Fall Two

CHEM 181 & 181L	General Chemistry I Lecture and General Chemistry I Lab	4
COMM 154	Fundamentals of Public Speaking	3
HIST 173	United States History to 1877	3
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Spring Two

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Credit Hours	14
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Total Credit Hours	60
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