



Biology Pathway

Catalog Year 2020-2021

Associate in Science, Math and Science – Biology Concentration (ASMSAS)

[Associate in Science, Math and Science](#)

Washtenaw Community College (WCC) has collaborated with several colleges and universities to provide a transfer pathway for WCC students seeking a bachelor's degree in Biology. The transfer destinations listed on page 2 have agreed to accept the courses outlined if students:

1. Earn a C or better in every course
2. Are admitted to the institution and the program

Earning an Associate Degree

WCC students must complete all of the following course and degree requirements to earn an Associate in Science. **Regular meetings with an advisor are strongly recommended to stay on track for graduation.** Please contact our advising center at 734-677-5102 if you need assistance or visit: wccnet.edu/advising.

Degree Requirements

To complete the Associate in Science Degree and the Michigan Transfer Agreement (MTA) General Education Requirements, these credits should be met according to the following outline:

- **English Composition:** ENG 111: Composition I (4 credits).
- **Second Course in English Composition or One course in Communication:** ENG 226: English Composition II or any approved Communication (COM) course (3 credits).
- **Mathematics:** MTH 176: College Algebra or MTH 191: Calculus I (4 credits); Check with your transfer destination for the preferred course.
- **Natural Sciences:** Two courses, in two different disciplines, from the MTA approved list
- **Social Sciences:** Two courses, in two different disciplines, from the MTA approved list
- **Humanities and Fine Arts:** Two courses, in two different disciplines, from the MTA approved list

The MTA approved list is located in the WCC Catalog or visit: wccnet.edu/mta.

Major Courses (24 Credits)

These courses will transfer to the transfer destinations listed on page 2:

- BIO 162: General Biology II Cells & Molecules (4 credits) (MTA)
- BIO 161: General Biology I Ecology and Evolution (4 credits) (MTA)
- CEM 111 General Chemistry I (4 credits) (MTA)
- CEM 122: General Chemistry II (4 credits) (MTA)
- CEM 211: Organic Chemistry I (4 credits) (MTA)
- CEM 222: Organic Chemistry II (4 credits) (MTA)

Remaining Associate Degree Requirements

- MTH 160: Basic Statistics or MTH 192: Calculus II (4 credits); Check with your transfer destination for the preferred course
- Select one course from the following: BIO 111, BIO 208, BIO 215, BIO 227, BIO 228 or BIO 237
- Additional Electives as needed to earn the 60 credits required for an Associate in Science Degree.

Transfer Your Courses

Visit the [Michigan Transfer Network website](#) to see how WCC courses transfer to universities in Michigan.



What will my courses look like when they transfer?

Central Michigan University

BIO 112 Foundations of Cell Biology (4)
BIO 111 Foundations of Evolution and Diversity (4)
CHM 131 General Chemistry I (4)
CHM 132 General Chemistry II (4)
CHM 345 Organic Chemistry I (3)
CHM 346 Organic Chemistry II (4)

Eastern Michigan University

BIO 110/BIO 111 Introductory Biology I & Lab (3/1)
BIO 120/BIO 121 Introductory Biology II & Lab (3/2)
CHEM 121/CHEM 122 Gen. Chemistry I & Lab (3/1)
CHEM 123/CHEM 124 Gen. Chemistry II & Lab (3/1)
CHEM 371 Organic Chemistry I (3)
CHEM 372/CHEM 373 Org. Chemistry II & Lab (3/2)

Grand Valley State University

BIO 120 General Biology I with Lab (4)
BIO 121 General Biology II with Lab (4)
CHM 115 Principles of Chemistry I & Lab (4)
CHM 116 Principles of Chemistry II & Lab (5)
CHM 241 Organic Chemistry I (4)
CHM 242 Organic Chemistry II (4)

Michigan Technological Univ.

BL 1100 General Biology I (4)
BL 1200 General Biology II (4)
CH 1150/1151 University Chemistry I /Lab (3/1)
CH 1160/1161 University Chemistry II /Lab (3/1)
CH 2410/2411 Organic Chemistry I/Lab (3/1)
CH 2420/2421 Organic Chemistry II/Lab (3/2)

Oakland University

BIO 1200/BIO 1201 Biology I/Lab (5)
BIO 1300 Biology II (4)
CHM 1440/1470 General Chemistry I /Lab (4)
CHM 1450/1480 General Chemistry II /Lab (4)
CHM 2340 Organic Chemistry I (4)
CHM 2350 Organic Chemistry II (4)

Spring Arbor University

BIO 112 Introduction to Biology II (4)
BIO 111 Introduction to Biology I (4)
CHE 111 General Chemistry I (4)
CHE 112 General Chemistry II (4)
CHE 201 Organic Chemistry I (5)
CHE 202 Organic Chemistry II (4)

University of Michigan – Dearborn

BIO 140/140L Intro. Molecular & Cellular Biology (4)
BIO 130/130L Intro Org & Environ Biology (4)
CHEM 134/134L General Chemistry IA (4)
CHEM 136/136L General Chemistry IIA (4)
CHEM 225 Organic Chemistry 1 (3)
CHEM 226 Organic Chemistry 2 (3)

Students are advised to check with their transfer destination for other program requirements and to assure that there have been no other changes.

Davenport University

BIOL 110/BIOL 110L Foundations of Cell Biology (4)
BIOL 111/BIOL 111L Organisms & Populations (4)
CHEM 160/CHEM 160L General Chemistry I (4)
CHEM 161/CHEM 161L General Chemistry II (4)
CHEM 250/CHEM 250L Organic Chemistry I (4)
CHEM 255/CHEM 255L Organic Chemistry II (4)

Finlandia University

BIO 111 Biology: Essentials for Life (4)
BIOL 113 Biology: Diversity of Life (4)
CHM 115 General Chemistry I (4)
CHM 116 General Chemistry II (4)
CHM 215 Organic Chemistry I (4)
CHM 216 Organic Chemistry II (4)

Lawrence Technological Univ.

BIO 1213/BIO 1221 Biology 1/Lab (4)
BIO 1223/BIO 1231 Biology 2/Lab (4)
CHM 1213/BIO 1221 University Chemistry 1/Lab (4)
CHM 1223/1231 University Chemistry 2/Lab (4)
CHM 2313/2311 Organic Chemistry 1/Lab (4)
CHM 2323/2321 Organic Chemistry 2/Lab (4)

Northern Michigan University

BI 111 Introductory Biology - Principles (4)
BI 112 Introductory Biology - Diversity (4)
CH 111 General Chemistry I (5)
CH 112 General Chemistry II (5)
CH 315/317 (lecture/lab) Org. Chem. (4)
CH 325/327 (lecture/lab) Organic Chemistry II (4)

Rochester University

BIO 1014 Biological Science I w/Lab (4)
BIO 1024 Biological Science II w/Lab (4)
CHE 1514 College Chemistry I w/Lab (4)
CHE 1524 College Chemistry II w/Lab (4)
CHE 2514 Organic Chemistry I (4)
CHE 2524 Organic Chemistry II (4)

University of Detroit Mercy

BIO 1200/1210 General Biology I/Lab (4)
BIO 1220/1230 General Biology II/Lab (4)
CHM 1070/1100 General Chemistry I /Lab (4)
CHM 1080/1120 General Chemistry II /Lab (4)
CHM 2270/2250 Organic Chemistry I /Lab (4)
CHM 2290/2260 Organic Chemistry II /Lab

The full Biology MiTransfer Pathway agreement can be found on the [Michigan Transfer Network Website](#).