Natural Sciences

Associate in Science (AS) Degree

Natural Sciences Concentration

For students considering a major in NATURAL SCIENCES upon transferring to a four-year institution, the Associate of Science degree with a NATURAL SCIENCES concentration from ACC offers a strong foundation, providing essential courses that serve as building blocks for advanced study.

A concentration in NATURAL SCIENCES can lead to diverse career opportunities, including research and development, environmental consulting, healthcare and medical professions, pharmaceuticals, education, data analysis, environmental conservation, biotechnology, and roles in government agencies or nonprofit organizations focused on science policy, public health, or sustainability.

Program Objectives

Upon graduating from ACC with an Associate of Science degree with a concentration in NATURAL SCIENCES, students will:

1. **Demonstrate** a solid understanding of core scientific principles in mathematics, physical sciences, and related fields applicable to further academic and professional pursuits.
2. **Apply** critical thinking, analytical, and problem-solving skills to address scientific challenges and real-world issues effectively.
3. **Communicate** scientific concepts and findings clearly through written, oral, and visual presentations, preparing students for careers or further education in science-related fields.

It is strongly recommended that students consult with an ACC Academic Advisor in NATURAL SCIENCES to ensure they meet specific program requirements, objectives, and transfer goals.

Program Requirements (PR)

BIO-161	**General College Biology I (4/5)**
BIO-162	**General College Biology II (4/5)**
BIO-210	**Introduction to Botany (4/6)**
BIO 211	**General Zoology (4/5)**
CEM 121	**General & Inorganic Chemistry (4/7)**
CEM 122	**Inorganic Chem & Qualitative Analysis (4/7)**
CEM 221	**Organic Chemistry (4/6)**
CEM 222	**Organic Chemistry (5/7)**
PHY 121	**General College Physics (4/6)**
PHY 122	**General College Physics (4/6)**

General Education
Degree Distribution Requirements

Group 1 (G1) – English composition

Six (6) semester credits are required, including ENG 111 or 121 and 112, 122 or 123

Group 2 (G2) – Sciences/Mathematics

Twenty (20) semester credits are required, including at least one laboratory science course. Courses will be taken in more than one academic discipline (course abbreviation/prefix). Note: Two (2) courses in Natural Sciences, including one with laboratory experience (from two disciplines), in addition to MTH 118 or MTH 121 or higher, are required to achieve the Michigan Transfer Agreement (MTA).

Group 3 (G3) – Social Sciences & Humanities/Fine Arts

Ten (10) semester credits are required in combination from both of these groups, with a minimum of three (3) credits from each group. Political Science or U.S. History courses used to satisfy the American Government requirement can be included. Courses will be taken in more than one academic discipline (course abbreviation/prefix). Note: Two (2) courses in Social Sciences (from two disciplines) and two (2) courses in Humanities and Fine Arts (from two disciplines and excluding studio and performance classes) are required for the Michigan Transfer Agreement (MTA).

Elective Credits (EC)

The remainder of credits for an AS degree with this concentration should be oriented toward additional courses in NATURAL SCIENCES with prefixes **BIO**, **CEM, MTH, and PHY** when available in consultation with an ACC Academic Advisor in NATURAL SCIENCES.

Recommended Courses - Sequence
Group 1-4 Requirements + Elective Credits

Meets ACC degree distribution and MTA requirements
64 Credits - 83 Contact Hours

Year 1 Fall	17 Credits	
G1	ENG 111	English Composition I (3/3)
G2 PR	**CEM 121**	**General & Inorganic Chemistry (4/7)**
G2 PR	**BIO-161**	**General College Biology I (4/5)**
G2	MTH	Math Elective (4/4)
G3	HUM/FA	Humanities/Fine Arts (3/3)

Year 1 Spring	14 Credits	
G1	ENG 112	English Composition II (3/3)
G2 PR	**CEM 122**	**Inorganic Chem & Qual Analysis (4/7)**
G2 PR	**BIO-162**	**General College Biology II (4/5)**
G3	HUM/FA	Humanities/Fine Arts (3/3)

Year 2 Fall	16 Credits	
G2 PR	**CEM 221**	**Organic Chemistry I (5/7)**
G2 PR	**BIO 210**	**Introduction to Botany (4/6)**
G2 PR	**PHY 121**	**General College Physics (4/6)**
G3	PLS 221	American Government & Politics (3/3)

Year 2 Spring	16 Credits	
G2 PR	**BIO 211**	**General Zoology (4/5)**
G2	**CEM 222**	**Organic Chemistry II (5/7)**
G2	**PHY 122**	**General College Physics (4/6)**
G3	SOC SCI	Social Science (3-3)