



## Conservation and Sustainability C.A.

Career Community: Science and Mathematics

Curriculum Code: 1844

Effective: Fall 2024 – Summer 2029

### Description

This certificate curriculum promotes entry-level technical knowledge, ethics, and rationale for a world view of sustainable practices in agriculture, alternative energy, business, construction, energy usage, natural resource management, and public policy. This certificate is for individuals seeking to enhance their employability by supplementing their existing credentials. Examples include those studying building trades or construction management seeking to implement sustainable building practices or students who hope to work in governmental and non-governmental agencies who intend to apply or advocate for sustainability.

### Milestone

Completion of CHEM 151 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in this course is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in this course.

### Additional Information

A student must earn a minimum grade of 2.0 in all courses.

### Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Science Department, Arts and Sciences Building, Room 3203, telephone number 517-483-1092, or the Academic Advising Department, Gannon Building – StarZone, telephone number 517-483-1904.

### Program of Study Required Courses

| Course Code             | Course Title                                                  | Credit / Billing Hours |
|-------------------------|---------------------------------------------------------------|------------------------|
| ARCH 113 or<br>ARCH 275 | Materials & Methods of Constr.<br>Sustainable Building Design | 4 / 6<br>4 / 6         |
| BIOL 120 or<br>BIOL 210 | Environmental Science<br>Natural Resource Conservation        | 4 / 6<br>4 / 6         |
| BIOL 127                | Cell Biology                                                  | 4 / 6                  |
| BIOL 128                | Organismal Biology                                            | 4 / 6                  |
| CHEM 151                | General Chemistry Lecture I                                   | 4 / 4                  |
| CHEM 161                | General Chemistry Lab I                                       | 1 / 3                  |
| ENGL 121 or<br>ENGL 131 | Composition I<br>Honors Composition I                         | 4 / 4<br>4 / 4         |

| Course Code             | Course Title                                          | Credit / Billing Hours |
|-------------------------|-------------------------------------------------------|------------------------|
| GEOG 120 or<br>GEOG 200 | Introduction to Geography<br>World Regional Geography | 3 / 3<br>4 / 4         |
| GEOL 230                | Environmental Geology                                 | 4 / 6                  |
| MATH 120                | College Algebra                                       | 4 / 4                  |

Note: BIOL 210 offered Fall semester only.

### Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 30-credit minimum required for a Certificate of Achievement may select any course(s) needed to reach 30 credits, except those courses noted in number 7 in the [Institutional Requirements for Certificates of Achievement](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

### Minimum Total Credit Hours

36 credits / 48 billing hours

### Recommended Course Sequence

| Semester I                      |
|---------------------------------|
| BIOL 127                        |
| BIOL 210 (If choosing BIOL 210) |
| GEOG 120 or GEOG 200            |
| MATH 120                        |

| Semester II                     |
|---------------------------------|
| BIOL 120 (if choosing BIOL 120) |
| CHEM 151 – Milestone course     |
| CHEM 161                        |
| ENGL 121 or ENGL 131            |

| Semester III         |
|----------------------|
| ARCH 113 or ARCH 275 |
| BIOL 128             |
| GEOL 230             |

*LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.*