Certificate Degree of Environmental Sustainability in Chemistry
College of Natural Science and Mathematics
University of Toledo

The certificate will be attractive to a broad audience including chemists, biochemists and chemical engineers holding a BS degree in chemistry or biochemistry who are employed and would benefit by having the specialty training of the certificate program without having to devote the time and finances to a full Masters' degree program. In addition, the certificate will be attractive to high school chemistry teachers who have a Masters' Degree in Education and at least 3 years of undergraduate chemistry who wish to teach college-level chemistry courses in their high school through the CCP program. Completion of the certificate program will provide teachers with sufficient knowledge and background to offer lower-level chemistry courses in their high schools. Typically, this would be General Chemistry I & II, but other lower level courses are also possible. Most of the coursework will be online, with some on-campus laboratory experiences in the summer.

Year 1: Semester 1: Summer III
CHEM 5100 Principles of Organic and Inorganic Chemistry (4 hrs.) (DL)
CHEM 5160 Chemistry Laboratory Techniques Development (2 hrs.) (DL, 1 week On Campus)

Year 1: Semester 2: Fall
CHEM 6200 Green Chemistry (3 hrs.) (DL)

Year 1: Semester 3: Spring
CHEM 6210 Environmental Chemistry (3 hrs.) (DL)

Year 2: Semester 4: Summer III
CHEM 5230 Chemistry of Sustainable Materials (4 hrs.) (DL)
CHEM 5170 Chemistry Instrumentation Techniques (2 hrs.) (DL, 1 week On Campus)

Program description
The program is 18 graduate hours including 2 face-to-face laboratories (4 credits). Program completers earn a Certificate in Chemistry. Students who already have a master's degree will be eligible to earn an Education Specialist degree.

Admission requirements
Earned BS or BA in chemistry, biochemistry or chemical engineering or appropriate undergraduate preparation in chemistry. Ohio license in AYA chemistry or AYA integrated science with a concentration in chemistry, undergraduate preparation in chemistry, and admission to The College of Graduate Studies.

Contact information
Please contact the Chair of the Department of Chemistry and Biochemistry