

WSI 106 - INTRODUCTION TO WATER QUALITY

Course Description

This course is designed to provide an exploration of water related industries and applications, with specific focus on freshwater, water quality, and associated technologies. Areas of instruction include water resources, water remediation and the use of technology in the management of these freshwater systems. In addition to regular class lectures, invited lectures will introduce relevant topics of local and global significance as related to water resources. Group 2 course.

Credit Hours

3

Contact Hours

3

Lecture Hours

3

Course Learning Outcomes

Knowledge:

- Define water-related terminology.
- Identify water quality technology applications.
- Explore career pathways in water-related fields.
- List current water quality issues of relevance in the Great Lakes and global waterways.

Application:

- Explain the significance of water quality issues of the Great Lakes and global waterways.
- Compare and contrast water quality issues around the world.
- Assess water remediation techniques.

Integration:

- Analyze a globally significant water quality issue to formulate potential solutions.
- Debate an ethical stance on a controversial water quality issue based on scientific data.
- Explain how water management decisions are informed by scientific and economic understanding.

Human Dimension:

- Work collaboratively to research a relevant water quality issue.
- Explore future career pathways and internship opportunities.
- Appreciate multiple perspectives on water quality issues and solutions.

Caring - Civic Learning:

- Differentiate the role of different stakeholders; industry, regulatory, and advocacy organizations, in water management.
- Evaluate the decision-making process of key stakeholders.
- Recognize the importance of social and civic engagement in issues concerning water management in the Great Lakes.

Learning How to Learn:

- Create reasoned conclusions about the relevance of global water quality impacts and proposed solutions.
- Establish connections with businesses and agencies pertaining to water resources and management.
- Advance knowledge and skills in activities pertaining to water resources.