BIOL 5888 - Environmental Biotechnology

Fall 2026 Syllabus, Section 01, CRN 42289,

Credit hours: 3

Instructor

Carl Johnston

Email: cgjohnston@ysu.edu

Public Instructor Information

Instructor Title: Professor
Instructor Professional Qualifications: PhD
Instructor Office Location: Ward Beecher 4006
Instructor Office Phone: 330 941 3600

Course Description

5888. Environmental Biotechnology. This course provides an overview of environmental biotechnology, engineering fundamentals, theory, and principles in application of biological treatment to solve environmental problems. Topics include relevant biological, chemical, and ecological processes, biological treatments of waste, land, and water. Environmental biotechnology is an essential tool to help humanity face enormous environmental health challenges, especially pollution, climate change, loss of habitat, and resulting threats to wildlife and human populations, their health outcomes and survival potential. This course is designed to summarize modern insights regarding evaluation and applications of environmental biotechnology. Prereq.: CHEM 3719 or CEEN 3736. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	Environmental Biotechnology	Gareth	978-0-470-97538-1

Textbook required for student success: Environmental Biotechnology: theory and application 2nd Edition by Gareth G Evens and Judy Furlong. ISBN: 978-0-470-97538-1

You can buy any new or used textbook from your choice of source. I highly recommended you use the textbook to round out your understanding of concepts and provided in Blackboard.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Tue	8/25	First day Field trips and schedule is subject to change. Please see Blackboard for announcement.	Syllabus	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.