

## BIOL 5888 - Environmental Biotechnology

Fall 2026 Syllabus, Section 01, CRN 42289,

Credit hours: 3

### Instructor

Carl Johnston

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### Public Instructor Information

Instructor Title: Professor

Instructor Professional Qualifications: PhD

Instructor Office Location: Ward Beecher 4006

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### 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<br>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.